ANNUAL GROUNDWATER MONITORING REPORT FOR 2021

MITIGATION ORDER ON CONSENT DOCKET NO. P-121-07
COCHISE COUNTY, ARIZONA



Prepared for:

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March 3, 2022

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March 3, 2022

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1. INTRODUCTION

This annual report provides the results of groundwater monitoring activities conducted in calendar year 2021 for the Mitigation Plan (Clear Creek Associates, 2015a) submitted to Arizona Department of Environmental Quality (ADEQ) in March 2015. The Mitigation Plan was submitted pursuant to the Mitigation Order on Consent Docket No. P-121-07 (ADEQ, 2007) between ADEQ and Freeport Minerals Corporation Copper Queen Branch (CQB). ADEQ provided a conditional approval of the annual groundwater monitoring and groundwater monitoring report provisions of the Mitigation Plan (ADEQ, 2015).

1.1 Mitigation Plan

The Mitigation Plan describes the process being followed as the mitigation action[1] for a groundwater plume of sulfate in the vicinity of the Concentrator Tailing Storage Area near Naco, south of Bisbee, Arizona (Figure 1). The mitigation action addresses the potential for existing drinking water supplies to be affected[2] by sulfate. Drinking water supplies in the vicinity of the plume do not exceed the sulfate action level of 250 milligrams per liter (mg/L) at this time because CQB mitigated previously affected supplies (CQB, 2013) under a separate plan (Clear Creek Associates, 2012) approved by ADEQ (ADEQ, 2012).

The mitigation action being implemented by CQB is Alternative 1C, which was identified as the recommended alternative by a Feasibility Study (Clear Creek Associates, 2014) submitted to and approved by ADEQ (ADEQ, 2014). The mitigation action contains the following components:

- a water supply study to identify a potential alternate groundwater source for public water supply mitigation, if needed,
- expanded groundwater monitoring to track plume migration in the vicinity of public drinking water supplies in the Naco area and to document sulfate concentrations at the leading edge of the plume for the purposes of establishing sentinel wells with action levels that, if exceeded, would trigger a contingent mitigation action at a public supply, if needed,

[1] The term mitigation action encompasses all actions implemented under the Mitigation Plan. If a contingent mitigation measure is implemented or the implemented measures are changed due to adaptive management, then the term mitigation action encompasses the contingency or change.

[2] The terms "affect" and "affected", with reference to a drinking water supply, are defined for the purpose of the Mitigation Plan as indicating a water supply with an average sulfate concentration exceeding 250 milligrams per liter due to sulfate originating from the Concentrator Tailing Storage Area.

- long term plume monitoring to monitor sulfate at public and private drinking water supplies, and to describe the groundwater flow system and large scale geometry of the plume over time, and

- annual review of Arizona Department of Water Resources (ADWR) well registry records to identify new drinking water supply wells within a mile of the plume.

The water supply study was completed and reported to ADEQ in 2016 (Clear Creek Associates, 2016). The expanded groundwater monitoring, long term plume monitoring, and review of ADWR well registry records are ongoing programs.

1.2 Scope of Annual Groundwater Monitoring Report

The Mitigation Plan describes the scope of the annual groundwater monitoring report as follows:

> *"Groundwater monitoring reports will provide the water quality and water level data collected under the expanded groundwater monitoring … and long term plume monitoring … programs. The results of well drilling, installation, testing, and monitoring for expanded groundwater monitoring will be incorporated into the groundwater monitoring report as the wells are installed and data become available. The annual ADWR well records review … will also be provided in the groundwater monitoring report. The reporting period will be a calendar year (i.e., January 1 through December 31). The groundwater monitoring report will be submitted by March 31 of the year following the reporting period."*

The primary objective of the annual groundwater monitoring report is to provide the water quality and water level data collected in 2021 for the long term plume monitoring and expanded groundwater monitoring programs. As described by the Mitigation Plan, the annual groundwater monitoring reports transmit data to ADEQ with little interpretation. Analysis and evaluation of the monitoring data are provided in mitigation performance review reports submitted to ADEQ under the Mitigation Plan (e.g. Clear Creek Associates, 2019a).

1.3 Sources of Groundwater Monitoring Data in 2021

1.3.1 Long Term Plume Monitoring

The long term plume monitoring program monitors the sulfate concentration at public and private drinking water supplies, and monitors water levels and sulfate levels at a site-wide array of monitoring wells. The objectives of long term plume monitoring are:

- determination of the sulfate concentration in drinking water supplies within one mile of the outer edge of the sulfate plume (i.e., the 250 mg/L sulfate concentration contour),
- identification of the plume margin for ongoing delineation of the plume extent and assessment of plume migration (plume edge monitoring),
- documentation of the sulfate concentrations in the plume and areas distal to the plume to monitor long term concentration trends (regional monitoring), and
- measurement of water levels in the vicinity of the plume to document potentiometric conditions.

Groundwater sampling and water level measurement for long term plume monitoring were conducted by CQB and Clear Creek Associates personnel. Table 1 provides the groundwater monitoring schedule for the monitoring program in 2021. Table 2 summarizes the status of sampling in 2021. Figure 2 is a geologic map (Hayes and Landis, 1964) showing the monitoring area and identifying wells where the data reported herein have been collected. The well locations are identified by name on Figures 3 and 4.

The groundwater sampling and analysis methods for groundwater monitoring under the Mitigation Order are described in the Quality Assurance Project Plan contained in Appendix F of the Work Plan (Hydro Geo Chem, Inc., 2008). Dissolved sulfate is the only constituent monitored. Appendices A and B contain field data forms and laboratory reports, respectively, for samples collected in 2021.

1.3.2 Expanded Groundwater Monitoring Program

The expanded groundwater monitoring program monitors the position of the plume in the immediate vicinity of the existing Arizona Water Company and Naco Water Company public drinking water supplies near Naco. The results of this monitoring will be used to identify sentinel well locations near the public supplies and sentinel well sulfate action levels that would, if exceeded, initiate a contingent mitigation. Well installation and testing for the expanded

groundwater monitoring program were completed and reported to ADEQ in 2015 (Clear Creek Associates, 2015b).

Basin fill wells installed for the expanded groundwater monitoring program are BMO-2014-1BL, BMO-2014-1BU, BMO-2014-2BL, BMO-2014-2BU, BMO-2014-3BL, BMO-2014-3BU, BMO-2014-4B, BMO-2014-4BL, BMO-2015-1B, BMO-2015-1BL, BMO-2015-2B, and BMO-2015-2BL (Figure 4). These wells are sampled semi-annually. The results of sulfate and water level monitoring at the expanded groundwater monitoring program wells are included in this report.

1.4 ADWR Well Records Review

The ADWR well records review is conducted annually to identify new well registry records for wells within one mile of the edge of the plume. If a new drinking water supply well is identified within a mile of the plume, CQB offers to sample the well and adds it to the long term plume monitoring schedule, if acceptable to the well owner. The review of ADWR well registry records is reported in the annual groundwater monitoring report to maintain a current list of drinking water supply wells in the vicinity of the plume for monitoring under the Mitigation Plan.

2. GROUNDWATER MONITORING RESULTS

2.1 Sulfate Data

Sulfate analytical results for 2021 are tabulated in Table 3, along with the results of previous monitoring under the Mitigation Order. Historical sulfate concentration data collected prior to the Mitigation Order are summarized and evaluated in the Aquifer Characterization Report (Clear Creek Associates, 2010).

Water quality samples were collected from wells site-wide in the first and third quarters of 2021 (Table 1). Figures 5 and 6 are sulfate concentration contour maps for the first and third quarters of 2021. Figures 7 and 8 are sulfate concentration maps of the west edge of the plume in the first and third quarters of 2021. The sulfate concentration contouring on Figures 5 through 8 is based on the highest sulfate concentration measured at co-located wells and the most recent sample result at wells with multiple measurements during a quarter. The extent of the sulfate plume and the contours drawn on these figures are based on consideration of both historical and 2021 sulfate concentration data.

Figure 9 shows sulfate concentrations through time at public drinking water supply wells. The sulfate concentrations at the AWC wells were all less than 87 mg/L in 2021, and less than the 150 mg/L temporary sulfate action level set in the Mitigation Plan for the AWC wellfield. Wells NWC-02 and NWC-06 had sulfate concentrations less than 10 mg/L in 2021. Sulfate concentrations at NWC-04 near Bisbee Junction, which is believed to be at the receding edge of the plume, ranged between 190 and 198 mg/L in 2021.

Figure 10 is a graph of sulfate concentrations over time in monitoring wells installed for the expanded groundwater monitoring program. Sulfate concentrations measured in the fourth quarter 2014 are not shown on Figure 10 because the data are anomalous compared to the next eight quarters of sampling, possibly due to incomplete well development prior to sampling. Sulfate concentrations in the expanded groundwater monitoring wells were relatively steady between 2015 and the third quarter 2021 in that concentrations at each well appear to vary within a range specific to the well and there are no abrupt increases in the trends of concentration. The lack of an abrupt increase in sulfate indicates that there has been no discernable migration of a plume front at the expanded groundwater monitoring program wells.

2.2 Water Elevation Data

Groundwater level data collected in 2021 are listed in Table 4, along with previous data collected for the Mitigation Order. Groundwater elevations were calculated using depth to water measurements made under static (non-pumping) conditions whenever possible.

Site-wide water level measurements are made in the first and third quarters of the year (Table 1). Figures 11 and 12 are site-wide groundwater elevation contour maps for the first and third quarters of 2021. Figures 13 and 14 are groundwater elevation contour maps for basin fill at the west edge of the plume in the first and third quarters of 2021. In Figures 11 through 14, the most recent depth to water measurement is used for contouring at wells with multiple measurements during a quarter.

Groundwater elevations over time for BMO monitor wells with screened intervals in basin fill are shown by Figure 15 for selected plume edge and regional monitoring wells (see Table 1 for well use), and by Figure 16 for expanded groundwater monitoring program wells. Groundwater elevations in plume edge and regional BMO monitor wells in basin fill decreased from 2008 through 2013, were relatively steady from 2013 to 2016, and declined from 2016 through 2021. Water elevations in expanded groundwater monitoring program wells show similar patterns of increase and decrease over time as do the plume edge and regional BMO monitor wells including, an annual pattern of low summer and high winter water elevations.

Figure 17 shows hydrographs for BMO monitor wells in bedrock. Groundwater elevations in BMO monitoring wells screened in bedrock show various patterns depending on the location and depth of the well. Water levels in bedrock wells beneath the basin fill tend to decline until 2013, stabilize from 2013 to 2016, and decline after 2016, similar to the basin fill wells. Water levels in shallow bedrock wells, such as BMO-2010-1M and BMO-2012-1M, near Bisbee Junction have increased in elevation over time. Section 4.2.3.2 of the Aquifer Characterization Report (Clear Creek Associates, 2010) has a detailed explanation of the different potentiometric systems in bedrock.

2.3 Quality Assurance/Quality Control

A data verification report is prepared for quality assurance and quality control purposes. The data verification report evaluates field and laboratory quality assurance data for acceptability in the context of data quality objectives for groundwater monitoring identified in the Quality Assurance Project Plan. The data verification report for 2021 is in Appendix C. Based on the

data verification review, the field measurements and analytical results collected in 2021 are of acceptable quality for use in monitoring activities conducted pursuant to the Mitigation Order.

2.4 Results of ADWR Well Records Review

Groundwater wells installed in Arizona are required to be registered with ADWR. Appendix D contains the ADWR well records review for 2021. The ADWR well records review was conducted using a version of the well records database current through January 10, 2022. The review identified registered wells within one mile of the sulfate plume in January 2022 that were not identified in previous well record reviews.

The ADWR Well Records Review identified one new well record within one mile of the sulfate plume. The record includes a Notice of Intent to drill a well. The new well was drilled to replace the unregistered TERRY well which has been sampled for the Mitigation Order since March 2019. The new well was drilled on the same property as the TERRY, which was taken out of service when the new well was installed. Clear Creek Associates identified the new well during the third quarter 2021 sampling and collected a sample once the well was equipped. Mr. James Terry, the well owner, confirmed that the well usage is as drinking water supply. The new well is reported herein as TERRY 101. The well was added to the annual sampling schedule per the Mitigation Plan (Clear Creek Associates, 2015a).

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TABLES

TABLE 1
Groundwater Monitoring Schedule in 2021

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
ANDERSON 396	613396	PNDW	RM	WLO	WLO	✓
ANDERSON 458	221458	PDWS	DWS (Mit)		✓	
ASLD 435	616435	STOCK	RM	WLO	WLO	
AWC-02	616586	PWS	DWS (>2000)	✓	✓	
AWC-03	616585	PWS	DWS (>2000)	✓	✓	
AWC-04	616584	PWS	DWS (>2000)	✓	✓	
AWC-05	590620	PWS	DWS (>2000)	✓	✓	
BANKS 986	647986	PDWS	DWS (>2000)		✓	
BANKS 987	647987	PNDW	RM	WLO	WLO	
BARTON 919	644919	PNDW	RM	WLO	WLO	
BIMA	577927	PNDW	RM			✓
BMO-2008-1G	909474	MW	PE (Lateral)	✓	✓	
BMO-2008-3B	909147	MW	PE (Lateral)	✓	✓	
BMO-2008-4B	910096	IRR	PE (Below)	WLO	✓	
BMO-2008-5B[1]	909653	PDWS	PE (Lateral)	✓	✓	
BMO-2008-5M	909552	MW	PE (Lateral)	✓	✓	
BMO-2008-6B	909146	MW	PE (Lateral)	✓	✓	
BMO-2008-6M	909019	MW	PE (Lateral)	✓	✓	
BMO-2008-7M	908794	MW	PE (Below)	WLO	✓	
BMO-2008-8B	910097	MW	RM	WLO	WLO	✓
BMO-2008-8M	909711	MW	PE (Below)	WLO	✓	
BMO-2008-9M	909255	MW	PE (Below)	WLO	✓	
BMO-2008-10GL	909435	MW	RM	WLO	WLO	✓
BMO-2008-10GU	909272	MW	RM	WLO	WLO	✓
BMO-2008-11G	909434	MW	PE (Lateral)	✓	✓	
BMO-2008-13B	909551	MW	RM	WLO	WLO	✓
BMO-2008-13M	909760	MW	RM	WLO	WLO	✓
BMO-2010-1M	219957	MW	PE (Below)	WLO	✓	
BMO-2010-2M	219958	MW	RM	WLO	WLO	✓
BMO-2010-3B	219970	MW	PE (Lateral)	✓	✓	
BMO-2010-3M	219969	MW	PE (Lateral)	✓	✓	
BMO-2012-1M	221388	MW	PE (Lateral)	✓	✓	
BMO-2014-1BL	917393	MW	PE (Lateral)	✓	✓	
BMO-2014-1BU	917394	MW	PE (Lateral)	✓	✓	
BMO-2014-2BL	917452	MW	PE (Lateral)	✓	✓	
BMO-2014-2BU	917453	MW	PE (Lateral)	✓	✓	
BMO-2014-3BL	917527	MW	PE (Lateral)	✓	✓	
BMO-2014-3BU	917494	MW	PE (Lateral)	✓	✓	
BMO-2014-4B	917620	MW	PE (Lateral)	✓	✓	
BMO-2014-4BL	917619	MW	PE (Lateral)	✓	✓	
BMO-2015-1B	917622	MW	PE (Lateral)	✓	✓	
BMO-2015-1BL	917621	MW	PE (Lateral)	✓	✓	
BMO-2015-2B	917827	MW	PE (Lateral)	✓	✓	
BMO-2015-2BL	917828	MW	PE (Lateral)	✓	✓	
BOOTH	914931	PDWS	DWS (<2000)	✓	✓	
BURKE	212268	PDWS	DWS (>2000)		✓	
CHAMBERS	629807	PDWS	DWS (>2000)		✓	
COB MW-1B	225906	MW	RM	WLO	WLO	✓
COB MW-2	903984	MW	PE (Lateral)	✓	✓	
COB MW-3	906823	MW	RM	WLO	✓	
COB WL	593116	MW	PE (Lateral)	✓	✓	

TABLE 1
Groundwater Monitoring Schedule in 2021

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
COOPER	623564	PDWS	DWS (<2000)	✓	✓	
COOPER C	637069	MW	RM		✓	
DODSON	644927	PDWS	DWS (<2000)	✓	✓	
DOUGLASS 791	592791	PNDW	RM		WLO	
DOUGLASS 792	592792	PNDW	RM		WLO	
EAST	599796	PDWS	DWS (>2000)		✓	
ECHAVE	219449	PDWS	DWS (>2000)	WLO	✓	
EPPELE 641	805641	PDWS	DWS (>2000)		✓	
FRANCO 383	221383	PDWS	DWS (Mit)		✓	
FULTZ	212447	PDWS	RM		✓	
GARNER 557	558557	PNDW	RM	WLO	WLO	
GARNER 635	587635	PDWS	DWS (Mit)		✓	
GOAR RANCH	610695	PNDW	RM	WLO	WLO	
HOBAN	805290	MW	RM	WLO	✓	
HOWARD NR	NR	PNDW	RM	WLO	WLO	✓
HOWARD 312	221312	PDWS	DWS (Mit)		✓	
KEEFER	209744	PDWS	DWS (<2000)	✓	✓	
LADD 251	520251	PNDW	RM	WLO	WLO	
LADD 538	505538	PNDW	RM	WLO	WLO	
LADD 635	224635	STOCK	RM	WLO	WLO	
LADD 837	519837	PNDW	RM	WLO	WLO	
LADD 977	642977	STOCK	RM	WLO	WLO	
MARCELL	NR	PNDW	RM			✓
MCCONNELL 265	539265	PNDW	RM	WLO	WLO	✓
MCCONNELL 459	221459	PDWS	DWS (Mit)		✓	
METZLER	35-71891	PNDW	RM	WLO	WLO	
MOORE	538847	PDWS	DWS (>2000)		✓	
NESS	509127	PDWS	DWS (>2000)		✓	
NOTEMAN	212483	PNDW	RM			✓
NSD-02	527587	MW	RM	WLO	WLO	
NSD-03	527586	MW	RM	WLO	WLO	
NWC-02	562944	PWS	DWS (>2000)	✓	✓	
NWC-03 CAP	627684	PNDW	RM	WLO	WLO	
NWC-04	551849	PWS	DWS (<2000)	Quarterly		
NWC-06	575700	PWS	DWS (>2000)	✓	✓	
OLMOS	224745	PDWS	DWS	WLO	✓	
OSBORN	643436	PDWS	DWS (>2000)		✓	
PALMER	578819	PDWS	DWS (>2000)		✓	
PANAGAKOS	35-76413	PDWS	PE (Lateral)	✓	✓	
PARRA	576415	PNDW	RM			✓
PIONKE 395	613395	PNDW	RM	WLO	WLO	✓
PIONKE 517	221517	PDWS	DWS (Mit)		✓	
POOL	509518	PDWS	DWS (>2000)		✓	
POWER 639	222639	PDWS	DWS (<2000)	✓	✓	
RAMIREZ	216425	PDWS	DWS (>2000)	WLO	✓	
RAY	803772	PDWS	DWS (>2000)		✓	
ROGERS 596	573596	PNDW	DWS (<2000)	✓	✓	
ROGERS 803	641803	PDWS	DWS (<2000)	✓	✓	
ROGERS E	216018	PDWS	DWS (<2000)	✓	✓	
RUIZ	531770	PDWS	DWS (<2000)	✓	✓	
SCHWARTZ	210865	PDWS	DWS (<2000)	✓	✓	

TABLE 1
Groundwater Monitoring Schedule in 2021

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
STEPHENS	808560	PNDW	RM	WLO	WLO	
SWAN	810034	PDWS	DWS (>2000)		✓	
TERRY	NR	PDWS	DWS (>2000)		✓	
THOMPSON 151	612151	PNDW	RM	WLO	WLO	
THOMPSON 341	218341	PDWS	DWS (>2000)		✓	
TM-02A	522574	MW	RM	WLO	WLO	✓
TM-06 MILLER	522695	MW	RM	WLO	WLO	✓
TM-07	522576	MW	PE (Lateral)	✓	✓	
TM-10 USBP	522696	MW	RM	✓	✓	
TM-15 MILLER	522699	MW	RM		✓	
TM-16	522578	MW	RM	WLO	WLO	✓
TM-19A	522580	MW	RM		✓	
TM-42	562554	MW	RM	WLO	WLO	✓
TVI 236	802236	IRR	PE (Lateral)	✓	✓	
TVI 713	567713	PNDW	RM	WLO	WLO	
TVI 875	568875	IRR	RM		✓	
WEED	544535	PDWS	DWS (<2000)	✓	✓	
WEISKOPF 802	641802	PNDW	RM	WLO	WLO	✓
WEISKOPF 897	220897	PDWS	DWS (Mit)		✓	
ZANDER	205126	PDWS	DWS	WLO	✓	

Notes:

1	In September 2018 BMO-2008-5B was verified as not being used for drinking water supply based on discussion with the property owner.
35-71891	ADWR 35 Database
ADWR	Arizona Department of Water Resources
NR	No Record

Well Use

PWS	Public Water Supply
PDWS	Private Drinking Water Supply
PNDW	Private Non-Drinking Water
IRR	Irrigation
MW	Monitoring Well
STOCK	Stock-Wildlife Watering

Monitoring Purpose

DWS (<2000)	Drinking Water Supply, Greater than 2000 feet from the plume
DWS (>2000)	Drinking Water Supply, Less than 2000 feet from the plume
DWS (Mit)	Drinking Water Supply, Mitigation well installed below plume
PE (Lateral)	Plume Edge Monitoring, Lateral to plume
PE (Below)	Plume Edge Monitoring, Below plume
RM	Regional Monitoring
WLO	Water Level Only

TABLE 2
Summary of Groundwater Monitoring in 2021

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2021			Third Quarter Schedule	3Q 2021		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
ANDERSON 396	613396	WLO	Y	N	Well identified for water level measurement only. Water level measured in January 2021.	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in July 2021.
ANDERSON 458	221458		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
ASLD 435	616435	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in September 2021.
AWC-02	616586	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
AWC-03	616585	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
AWC-04	616584	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
AWC-05	590620	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BANKS 986	647986		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured due to obstruction in well.
BANKS 987	647987	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
BARTON 919	644919	WLO	N	N	Water level not measured due to obstruction in well.	WLO	N	N	Water level not measured due to obstruction in well.
BIMA	577927		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured due to obstruction in well.
BMO-2008-1G	909474	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-3B	909147	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-4B	910096	WLO	N	N	No property access.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-5B	909653	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-5M	909552	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-6B	909146	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-6M	909019	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-7M	908794	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.

TABLE 2
Summary of Groundwater Monitoring in 2021

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2021			Third Quarter Schedule	3Q 2021		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
BMO-2008-8B	910097	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
BMO-2008-8M	909711	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
BMO-2008-9M	909255	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
BMO-2008-10GL	909435	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
BMO-2008-10GU	909272	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
BMO-2008-11G	909434	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2008-13B	909551	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
BMO-2008-13M	909760	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
BMO-2010-1M	219957	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2010-2M	219958	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2010-3B	219970	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2010-3M	219969	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2012-1M	221388	✓	Y	Y	Water quality sample collected in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2014-1BL	917394	✓	Y	Y	Water levels measured in January and March 2021. Water quality sample collected in March 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2014-1BU	917393	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2014-2BL	917452	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2014-2BU	917453	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2014-3BL	917527	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2014-3BU	917494	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.

TABLE 2
Summary of Groundwater Monitoring in 2021

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2021			Third Quarter Schedule	3Q 2021		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
BMO-2014-4B	917620	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2014-4BL	917619	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2015-1B	917622	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2015-1BL	917621	✓	Y	Y	Water levels measured in January and March 2021. Water quality sample collected in March 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2015-2B	917827	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BMO-2015-2BL	917828	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
BOOTH	914931	✓	N	N	Well owner has declined participation in well sampling program.	✓	N	N	Well owner has declined participation in well sampling program.
BURKE	212268		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured per owner request.
CHAMBERS	629807		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	Unable to sample due to inoperable pump. Water level not measured due to no access to wellhead.
COB MW-1B	225906	WLO	N	N	Well identified for water level measurements only. No water level collected per well owner request.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured per owner request.
COB MW-2	903984	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
COB MW-3	906823	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
COB WL	593116	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
COOPER	623564	✓	N	N	No property access.	✓	N	N	Unable to sample due to inoperable pump. Water level not measured due to no port in wellhead.
COOPER 988	232988		N	N	No property access.		Y	Y	Water quality sample collected in July 2021.
COOPER C	637069		Y	N	Well is not scheduled for first quarter monitoring. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in July 2021.
DODSON	644927	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
DOUGLASS 791	592791		N	N	Well is not scheduled for first quarter monitoring.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
DOUGLASS 792	592792		N	N	Well is not scheduled for first quarter monitoring.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.

TABLE 2
Summary of Groundwater Monitoring in 2021

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2021			Third Quarter Schedule	3Q 2021		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
EAST	599796		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
ECHAVE	219449	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
EPPELE 641	805641		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	No property access.
FRANCO 383	221383		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
FULTZ	212447		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	Well owner has declined participation in well sampling program.
GARNER 557	558557	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
GARNER 635	587635		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
GOAR RANCH	610695	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
HOBAN	805290	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in September 2021.
HOWARD NR	NR	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
HOWARD 312	221312		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
KEEFER	209744	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
LADD 251	520251	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in September 2021.
LADD 538	503538	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in September 2021.
LADD 635	224635	WLO	N	N	Water level not measured due to no port in wellhead.	WLO	N	N	Water level not measured due to no port in wellhead.
LADD 837	519837	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in September 2021.
LADD 977	642977	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in September 2021.
MARCELL	NR		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	No property access.
MCCONNELL 265	539265	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in July 2021.

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Summary of Groundwater Monitoring in 2021

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2021			Third Quarter Schedule	3Q 2021		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
MCCONNELL 459	221459		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
METZLER	35-71891	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
MOORE	538847		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
NESS	509127		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
NOTEMAN	212483		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured due to obstruction in well.
NSD-02	527587	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
NSD-03	527586	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
NWC-02	562944	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
NWC-03 CAP	627684	WLO	N	N	Well is dry.	WLO	N	N	Well is dry.
NWC-04	551849	✓	N	Y	Water quality sample collected in January 2021. Water level not measured due to obstruction in well.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured due to obstruction in well.
NWC-06	575700	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
OLMOS	224745	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
OSBORN	643436		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	Unable to sample due to inoperable pump. Water level not measured due to no port in wellhead.
PALMER	578819		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured due to inaccessible wellhead.
PANAGAKOS	35-76413	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
PARRA	576415		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in July 2021. Unable to measure water level due to no port in wellhead.
PIONKE 395	613395	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in July 2021.
PIONKE 517	221517		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
POOL	509518		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.

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Summary of Groundwater Monitoring in 2021

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2021			Third Quarter Schedule	3Q 2021		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
POWER 639	222639	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
RAMIREZ	216425	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
RAY	803772		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
ROGERS 596	573596	✓	N	N	No property access.	✓	Y	Y	Water quality sample collected in July 2021.
ROGERS 803	641803	✓	N	N	No property access.	✓	N	N	Well is dry.
ROGERS E	216018	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
RUIZ	531770	✓	N	N	Unable to sample or collect water level measurement. Well is capped.	✓	N	N	Unable to sample or collect water level measurement. Well is capped.
RUIZ 146	232146		Y	Y	Well replaced RUIZ. Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
SCHWARTZ	210865	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.
STEPHENS	808560	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
SWAN	NR		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	No property access.
TERRY	229470		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured due to inaccessible wellhead.
TERRY 101	234101		N	N	Well was not installed in first quarter 2021.	✓	Y	Y	Water quality sample collected in September 2021.
THOMPSON 151	612151	WLO	N	N	Water level not measured due to obstruction in well.	WLO	N	N	Water level not measured due to obstruction in well.
THOMPSON 341	218341		Y	N	Water level measured in January 2021 because THOMPSON 151 was obstructed.	✓	Y	Y	Water quality sample collected in July 2021.
TM-02A	522574	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in July 2021.
TM-06 MILLER	522695	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in July 2021.
TM-07	522576	✓	Y	Y	Water quality sample collected in March 2021.	✓	Y	Y	Water quality sample collected in August 2021.
TM-10 USBP	522696	✓	Y	Y	Water quality sample collected in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.

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Summary of Groundwater Monitoring in 2021

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2021			Third Quarter Schedule	3Q 2021		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
TM-15 MILLER	522699		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
TM-16	522578	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2021.	✓	Y	Y	Water quality sample collected in July 2021.
TM-19A	522580		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2021.
TM-42	562554	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2021.	✓	Y	Y	Water quality sample collected in July 2021.
TVI 236	802236	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in January 2021.	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in July 2021.
TVI 713	567713	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2021.
TVI 875	568875		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	Unable to sample due to inoperable pump. Water level not measured due to no port in wellhead.
WEED	544535	✓	N	Y	Water quality sample collected in January 2021. Water level not measured due to no port in wellhead.	✓	N	Y	Water quality sample collected in July 2021. Water level not measured due to no port in wellhead.
WEISKOPF 802	641802	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in July 2021.
WEISKOPF 897	220897		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2021.
ZANDER	205126	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2021.	✓	Y	Y	Water quality sample collected in July 2021.

Notes:
35-71891 = ADWR 35
ADWR = Arizona Department of Water Resources
bls = below land surface
N = no
ND = no data
NR = no record
Q = quarter
Y = Yes
WLO = water level only

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
ANDERSON 396	613396	3/20/08	7.25	21.1	1176	431
		5/5/08	7.03	21.8	1231	452
		7/14/08	7.11	21.6	1260	472
		10/15/08	7.10	21.3	1252	475
		1/27/09	7.27	21.0	965	488
		4/14/09	7.12	21.8	1229	534
		7/14/09	7.03	22.2	1372	550
		10/12/09	6.98	21.5	1375	510
		1/27/10	7.93	20.1	1449	523
		4/21/10	7.40	20.7	1439	627
		7/19/10	6.93	24.1	1420	648
		10/19/10	7.03	20.6	1229	416
		1/17/11	7.02	20.6	1334	562
		4/11/11	6.92	15.1	1485	609
		7/14/11	7.23	24.4	1451	678
		10/11/11	6.65	21.2	1230	543
		2/1/12	7.28	11.8	1360	551
		4/25/12	7.10	23.9	1380	657
		7/12/12	6.89	24.9	1520	667
		10/10/12	7.40	24.0	1414	574
		4/7/14	7.06	17.4	1057	175
		7/11/14	7.35	21.4	1033	272
		10/6/14	7.13	27.5	974	99.0
		10/6/14 DUP	7.13	27.5	974	102.0
ANDERSON 458	221458	9/9/12	8.34	25.9	406.3	31
		10/10/12	8.13	23.8	412.3	30.3
		1/17/13	8.06	23.7	416.0	30.9
		4/15/13	8.19	23.5	402.7	32.3
		7/18/13	8.18	24.3	401.9	23
		10/16/13	8.10	23.8	400.1	25.2
		1/9/14	8.15	22.9	399.3	26.2
		1/9/14 DUP	8.15	22.9	399.3	26.2
		4/7/14	8.16	24.0	401.6	27.5
		7/11/14	8.13	24.5	396.7	25.3
		10/6/14	8.06	25.6	384.0	26.0
		7/22/15	8.17	25.2	397.3	25.3
		7/19/16	8.14	23.8	395.2	24.2
		7/18/17	8.01	23.9	395.5	26.8
		7/18/18	7.88	24.2	397.1	23.4
		7/11/19	7.85	24.1	396.2	22.4
		7/22/20	8.01	24.6	394.6	24.0
		7/27/21	8.03	23.8	396.9	22.2
AWC-02	616586	1/7/08	ND	ND	ND	14
		3/3/08	ND	ND	ND	16
		5/5/08	ND	ND	ND	13.3
		8/12/08	7.01	22.3	630	14.3
		10/23/08	7.31	23.1	464	15.9
		3/11/09	7.19	21.8	420	15.5
		4/22/09	7.17	22.6	430	14.7
		7/22/09	7.24	22.7	444	14.2
		10/21/09	7.19	21.3	468	16.8
		2/3/10	7.44	19.7	449	18.6
		4/23/10	7.56	19.7	526	18.3
		7/20/10	7.27	23.9	450	18.2
		11/4/10	7.72	21.3	465.9	18.8
		1/19/11	7.84	19.0	500	18.4
		4/7/11	7.27	20.3	488.5	17.3
		7/13/11	5.93	23.9	431.5	12.9
		10/13/11	6.72	25.1	464.6	17.4
		10/13/11 DUP	6.72	25.1	464.6	17.4
		2/2/12	7.20	20.8	479.5	19.4
		4/24/12	7.23	23.0	430	15.5
		7/5/12	7.25	22.1	437.1	10.1
		10/18/12	7.48	21.6	473.6	13.0
		2/5/13	7.54	19.3	448.9	18.0
		4/11/13	7.53	22.1	471.3	17.2
		7/25/13	7.35	22.1	460.5	14.7
		10/9/13	7.53	21.2	476.4	15.5
		1/7/14	7.45	20.3	503.7	18.8
		1/7/14 DUP	7.45	20.3	503.7	18.9
		5/14/14	7.34	21.0	508.4	19.2
		7/16/14	7.54	21.8	499.5	19.2
		10/15/14	7.26	23.2	520	18.9
		1/29/15	7.44	21.4	511	20.5
		7/21/15	7.62	22.5	506.7	19.9
		1/13/16	7.63	20.6	411.2	8.27
		7/19/16	7.40	22.1	418.7	7.80
		1/19/17	7.33	20.5	428.7	9.87
		9/6/17	7.4	20.7	423.3	7.65
		1/17/18	7.26	20.5	442.6	13.0
		7/25/18	7.33	20.5	489.9	16.7
		7/25/18 DUP	7.33	20.5	489.9	16.9
		1/13/20	7.39	20.6	516.0	20.5
		8/13/20	7.29	21.0	519.3	16.3
		1/4/21	7.27	20.8	543.6	16.6
		7/20/21	7.11	20.1	538.3	18.6

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-03	616585	1/7/08	ND	ND	ND	41
		3/3/08	ND	ND	ND	38
		5/5/08	ND	ND	ND	37.3
		8/12/08	7.28	22.4	469	38.8
		10/23/08	7.48	21.0	462	41.8
		3/11/09	7.25	21.2	445	64.2
		4/22/09	7.30	21.4	452	42.4
		7/22/09	7.39	22.6	456	41.8
		10/21/09	7.48	21.3	540	50.5
		2/3/10	7.44	19.7	449	42.0
		4/23/10	7.57	19.7	468	44.4
		7/20/10	7.29	23.8	460	46.7
		11/4/10	7.80	20.8	452.3	46.3
		1/19/11	7.07	19.6	560	49
		4/7/11	7.28	19.9	469.8	46.8
		7/13/11	6.33	23.1	458.8	47.6
		7/13/11 DUP	6.33	23.1	458.8	46.2
		10/13/11	6.69	23.8	463.6	48.8
		2/2/12	7.39	20.7	504.8	47.7
		4/24/12	7.28	22.1	450	51.8
		7/5/12	7.32	21.7	474.3	50.7
		10/18/12	7.44	21.3	477.4	51.3
		2/5/13	7.73	19.2	481.2	55
		4/11/13	7.51	22.2	486.4	66.1
		7/16/13	7.61	21.5	489.6	63.6
		10/9/13	7.57	20.5	485.8	49.4
		10/9/13 DUP	7.57	20.5	485.8	51
		1/7/14	7.62	20.4	486.3	56.6
		5/14/14	7.64	20.5	493.0	61.1
		7/16/14	7.68	21.4	506.9	69.1
		10/15/14	7.38	22.2	506.0	63.4
		1/29/15	7.59	21.2	495	77.1
		7/21/15	7.63	21.6	494	55.5
		1/13/16	7.62	19.9	474.1	43.5
		7/19/16	7.47	20.9	493.2	54.8
		1/19/17	7.41	20.0	480.4	57.1
		9/6/17	7.41	20.3	525.5	75.1
		1/17/18	7.25	19.9	487.6	57.0
		7/25/18	7.36	20.3	504.5	76.3
		1/16/19	7.33	20.1	500.8	75.7
		7/23/19	7.29	20.0	506.7	68.6
		1/13/20	7.64	19.3	513.9	74.4
		8/3/20	7.38	20.8	512.7	77.2
		1/4/21	7.42	20.7	523.7	73.6
		7/20/21	7.24	20.1	518.7	87.2

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-04	616584	2/4/08	ND	ND	ND	18
		4/7/08	ND	ND	ND	18
		6/2/08	ND	ND	ND	14.3
		8/12/08	7.08	22.5	458	21.6
		10/23/08	6.91	22.2	616	24
		3/11/09	7.02	21.3	539	27.2
		4/22/09	6.93	22.1	560	26.1
		7/22/09	7.13	22.5	587	26.2
		10/21/09	7.00	21.2	607	25.7
		2/3/10	7.35	19.3	438	16.3
		4/23/10	7.14	19.2	625	27.4
		7/20/10	7.02	24.1	600	26.6
		11/4/10	7.41	20.3	593.2	24
		1/19/11	8.15	20.5	690	26.2
		4/7/11	7.00	20.4	637.2	25.8
		7/13/11	6.88	20.4	610.1	25.7
		10/13/11	6.38	24.0	619.7	27.6
		2/2/12	6.97	20.1	637.6	27.2
		4/24/12	7.10	22.1	570	25.2
		7/5/12	7.03	21.6	568.0	28.2
		7/5/12 DUP	7.03	21.6	568.0	28.1
		10/18/12	7.20	20.8	606.7	26.6
		2/5/13	7.29	19.7	616.8	26.9
		4/11/13	7.38	21.7	595.4	26.2
		7/16/13	7.30	21.0	585.7	27.0
		10/9/13	7.36	20.4	588.6	24.6
		1/7/14	7.36	19.7	651.4	23.7
		5/14/14	7.38	19.8	674.2	22.7
		7/16/14	7.32	20.7	632.2	24.1
		7/16/14 DUP	7.32	20.7	632.2	22.9
		10/15/14	7.01	21.9	688	21.4
		1/29/15	7.20	21.0	687	22.9
		7/21/15	7.38	21.2	619.6	23.2
		1/13/16	7.42	19.2	556.6	27.0
		7/19/16	7.24	20.6	590.7	31.4
		1/19/17	7.06	19.6	658.6	22.9
		1/19/17 DUP	7.06	19.6	658.6	23.1
		9/6/17	7.17	19.8	571.0	25.8
		1/17/18	7.13	19.6	532.6	38.6
		7/25/18	6.99	19.3	663.1	24.3
		1/16/19	6.99	19.4	706.8	20.7
		7/23/19	7.06	19.5	591.8	24.2
		1/13/20	7.38	19.5	715.2	22.5
		8/3/20	6.92	20.0	731.5	23.2
		2/9/21	7.01	19.1	732.1	23.9
		2/9/21 DUP	7.01	19.1	732.1	23.3
		7/20/21	6.87	19.1	720.7	25.8

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-05	590620	2/4/08	ND	ND	ND	13
		4/7/08	ND	ND	ND	14
		6/2/08	ND	ND	ND	14.3
		8/12/08	6.74	23.3	425	14.9
		10/23/08	7.45	21.0	422	15.4
		3/11/09	7.31	22.1	398	16.5
		6/3/09	7.33	22.0	418	12.1
		7/22/09	7.49	24.4	423	14.1
		10/21/09	7.37	21.1	433	16.5
		2/3/10	7.35	19.3	438	16.3
		4/23/10	7.62	18.9	443	17.6
		7/20/10	7.62	24.2	440	19.1
		11/4/10	7.92	20.7	427.1	18.4
		1/19/11	7.64	20.3	420	17
		4/7/11	7.22	20.8	438.3	17.6
		7/13/11	6.52	22.9	419.8	17.9
		10/13/11	6.82	26.0	427.5	19
		2/2/12	7.35	21.4	427.9	19.5
		4/24/12	7.18	21.4	430	15.4
		7/5/12	7.24	22.6	432.1	19.1
		10/18/12	7.66	22.6	436.1	20.1
		2/5/13	7.57	20.2	437.7	20.1
		4/11/13	7.54	21.2	444.5	20.3
		7/16/13	7.56	21.3	454.5	18.0
		7/16/13 DUP	7.56	21.3	454.5	17.7
		10/9/13	7.58	21.3	455.3	15.4
		5/14/14	7.54	21.2	442.3	19.8
		7/16/14	7.60	22.6	470.9	20.3
		10/15/14	7.38	23	452	20.8
		1/29/15	7.64	19.6	443	18.0
		7/21/15	7.67	21.9	457.9	17.0
		1/13/16	7.69	19.9	444.4	14.4
		7/19/16	7.40	22.2	443.1	20.7
		1/19/17	7.45	21.4	436.7	21.9
		9/6/17	7.38	20.9	447.4	19.7
		9/6/17 DUP	7.38	20.9	447.4	20.5
		1/17/18	7.34	20.5	437.0	20.2
		7/25/18	7.35	20.4	456.9	17.9
		1/16/19	7.39	21.0	441.6	19.3
		1/13/20	7.81	18.8	448.2	20.2
		8/3/20	7.41	21.6	446.8	19.4
		1/4/21	7.41	21.2	456.6	18.7
		1/4/21 DUP	7.41	21.2	456.6	18.4
		7/20/21	7.28	20.6	448.6	23.3
BANKS 986	647986	2/27/08	7.53	21.8	980	44
		5/12/08	7.40	22.1	1021	65.2
		7/21/08	7.43	22.9	1034	82.2
		10/13/08	7.28	21.7	980	53
		1/21/09	7.66	21.6	872	164
		4/8/09	7.56	22.7	933	47
		7/9/09	7.59	23.1	871	70.9
		10/7/09	7.50	22.2	838	67.7
		2/25/10	7.56	21.1	1020	50.5
		4/20/10	7.71	22.8	1013	53.9
		7/20/10	7.70	23.2	828.3	71.5
		10/20/10	7.60	22.4	948.7	73.4
		1/17/11	7.73	20.6	1038	53.5
		4/5/11	7.66	21.5	965.0	64.5
		7/11/11	7.72	25.4	890.0	68.8
		10/12/11	7.88	21.2	1551	172
		1/31/12	7.69	20.2	1017	64.3
		1/31/12 DUP	7.69	20.2	1017	64.9
		4/11/12	7.77	22.0	1025	64.0
		7/6/12	7.66	23.7	940	78.6
		7/6/12 DUP	7.66	23.7	940	77.9
		10/4/12	7.73	22.0	845.4	62.6
		1/18/13	7.82	21.9	832.4	70.5
		4/8/13	7.87	20.7	861.7	62.9
		7/9/13	8.04	22.9	769.1	67.9
		10/15/13	7.59	21.7	1158	79.6
		1/14/14	7.77	20.9	967.4	75.2
		4/8/14	7.47	21.4	1337	113
		7/8/14	7.58	22.3	1175	107
		7/8/14 DUP	7.58	22.3	1175	110
		10/21/14	7.37	22.7	1158	91.3
		7/24/15	7.67	22.6	1002	76.3
		7/12/16	7.59	22.2	1029	68.7
		7/26/17	7.45	20.9	1012	88.6
		7/30/18	7.40	21.0	987.6	66.6
		7/11/19	7.27	22.2	933.8	67.6
		8/13/20	7.34	21.8	931.5	66.1
		7/20/21	7.42	21.6	990.8	69.6

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BF-01	539783	5/23/08	6.41	18.3	2698	1450
		8/5/08	6.11	22.4	3095	1330
		11/5/08	6.33	19.9	3027	1490
		2/20/09	6.42	19.2	1477	1330
		5/6/09	5.98	23.9	2632	1280
		8/17/09	6.21	29.7	2948	1250
		11/4/09	6.24	23.0	2846	1280
		3/1/10	6.34	21.1	2945	1260
		4/7/10	5.83	20.4	1853	1450
		7/6/10	5.93	22.6	1403	1310
		7/13/11	6.26	21.3	2960	1350
		2/1/12	6.18	19.8	2910	1480
		8/14/12	6.00	21.5	3000	1500
BIMA	577927	2/6/08	6.69	22.2	1335	210
		4/25/08[1]	6.37	23.1	1521	190
		5/13/08[1]	6.58	22.7	1489	195
		6/23/08[1]	6.30	23.3	1572	225
		6/23/08 DUP	6.30	23.3	1572	196
		7/29/08[1]	6.44	23.0	1647	204
		8/28/08[1]	M	23.0	1776	256
		9/23/08[1]	6.29	23.0	1741	296
		10/22/08	6.41	22.3	1801	285
		1/20/09	6.40	21.7	1233	190
		1/20/09 DUP	6.40	21.7	1233	200
		4/7/09	6.45	23.4	1436	212
		7/8/09	6.31	23.4	1483	189
		10/5/09	6.34	22.7	1525	233
		1/20/10	6.88	17.0	M	222
		4/19/10	6.70	21.9	1533	256
		7/12/10	6.70	24.0	1577	273
		10/18/10	6.47	24.3	1702	296
		1/19/11	6.65	21.2	1672	283
		4/4/11	6.61	24.0	1643	282
		8/25/11	6.27	25.9	1460	300
		10/10/11	6.5	24.1	1520	322
		2/3/12	6.48	18.5	1540	312
		4/23/12	6.57	23.9	1790	303
		7/10/12	6.06	23.7	1200	301
		11/29/12	6.51	20.6	1664	310
		3/13/13	7.29	19.8	1175	317
		4/10/13	6.64	13.9	1569	308
		7/8/13	6.62	28.0	1580	301
		10/11/13	6.57	21.8	1749	301
		1/10/14	6.63	10.7	1664	297
		4/10/14	6.62	15.8	1685	300
		7/8/14	6.56	21.6	1653	297
		10/23/14	6.25	23.9	1704	227
		7/23/15	6.87	26.2	1627	271
		7/15/16	6.90	28.7	1602	271
		7/27/17	6.84	25.4	1553	304
		7/11/19	6.75	28.2	1514	240
		7/20/21	6.93	24.5	1396	200
BLOMMER	633472	2/5/08	7.43	20.2	714	206
		4/21/08[1]	7.06	21.9	753	201
		5/15/08[1]	7.16	22.2	845	211
		6/23/08[1]	6.93	21.5	903	193
		7/29/08[1]	7.21	22.2	921	203
		8/27/08[1]	7.12	22.1	864	189
		9/23/08[1]	7.16	22.3	818	193
		10/22/08	7.17	21.3	873	200

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-1G	909474	8/27/08	7.09	24.2	808	107
		11/11/08	7.00	20.8	721	143
		2/25/09	7.01	22.0	860	109
		4/28/09	7.04	22.2	762	198
		8/4/09	7.23	22.8	950	104
		10/27/09	7.11	21.9	922	103
		2/17/10	7.36	20.5	899.3	98.4
		4/15/10	7.04	22.2	711	95.2
		7/7/10	6.91	21.5	640	88.1
		7/7/10 DUP	6.91	21.5	640	87.1
		2/10/11	6.80	21.0	916	105
		7/12/11	7.2	26.6	1015	121
		2/8/12	7.02	20.2	869	116
		8/14/12	6.97	21.9	959	120
		2/14/13	7.09	21.2	986	112
		8/14/13	6.96	21.6	1009	120
		2/13/14	6.76	21.1	1010	114
		7/22/14	6.87	22.0	1010	117
		2/4/15	7.35	22.1	942	116
		9/10/15	7.21	21.8	953	109
		3/3/16	7.16	22.1	950	108
		8/17/16	7.05	22.2	986	121
		3/1/17	6.99	22.1	923	110
		7/24/17	7.11	22.2	925	112
		2/14/18	7.08	20.9	924	112
		7/10/18	7.24	22.2	920	115
		2/5/19	7.15	21.4	920	99.5
		7/31/19	7.15	22.2	907	100
		2/5/20	7.19	21.7	914	105
		8/12/20	7.26	22.1	897	93.2
		2/2/21	7.21	21.3	878	92.6
		7/14/21	7.18	21.9	875	91.7
BMO-2008-3B	909147	7/18/08	7.35	23.9	615	106
		11/4/08	7.36	21.4	599	179
		11/4/08 DUP	7.36	21.4	599	177
		2/19/09	7.24	21.4	664	155
		5/11/09	7.23	22.1	631	149
		8/6/09	7.33	21.4	718	151
		8/6/09 DUP	7.33	21.4	718	156
		10/26/09	7.32	21.8	684	153
		3/3/10	7.38	21.4	695	164
		4/8/10	6.47	21.3	585	162
		7/1/10	6.92	21.4	541	157
		2/14/11	6.98	20.6	698	169
		7/12/11	7.04	21.4	672	148
		2/23/12	6.92	21.0	695	173
		7/10/12	7.02	21.5	651	150
		2/15/13	6.63	20.4	692	163
		8/27/13	7.1	21.1	725	170
		2/11/14	7.01	20.7	729	162
		7/21/14	6.98	21.0	706	163
		2/5/15	7.11	21.2	652	145
		9/14/15	7.29	21.7	638	133
		3/3/16	7.29	21.8	637	136
		8/18/16	7.18	21.4	637	139
		3/1/17	6.99	21.0	618	135
		7/26/17	7.17	21.5	648	147
		2/8/18	7.46	21.0	653	150
		7/10/18	7.35	21.9	663	154
		2/5/19	7.41	21.2	703	169
		2/5/19 DUP	7.41	21.2	703	173
		8/6/19	7.29	22.2	727	165
		2/6/20	7.57	21.0	655	150
		8/12/20	7.39	21.6	647	132
		2/2/21	7.38	21.8	644	130
		7/27/21	7.29	21.6	670	147

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-4B	910096	12/11/08	7.34	22.8	374	9.4
		2/18/09	7.17	23.2	370	13.4
		4/30/09	7.33	24.5	376	11.4
		4/30/09 DUP	7.33	24.5	376	11.8
		8/6/09	7.53	24.6	397	11.5
		10/27/09	7.53	23.7	379	11.2
		2/24/10	7.48	21.8	362	9.7
		4/16/10	7.70	23.4	330	9.73
		7/2/10	7.25	23.6	323	10.10
		2/15/11	7.65	22.2	362	8.90
		7/22/11	7.33	23.7	371	10.2
		2/23/12	7.21	22.3	354	10.5
		8/15/12	6.96	23.6	380	9.5
		1/15/13	7.63	22.7	370.2	10.3
		1/15/13 DUP	7.63	22.7	370.2	9.5
		4/15/13	7.75	23.0	368.2	11.2
		9/18/13	7.69	23.4	384.6	9.8
		1/9/14	7.81	22.2	371.4	11.1
		7/18/14	7.78	23.3	379.1	11.6
		9/30/17	7.43	22.6	392.5	9.88
		7/26/18	7.43	22.6	386.1	10.9
		7/22/19	7.53	22.8	377.1	11.2
		7/22/19 DUP	7.53	22.8	377.1	11.2
		8/11/20	7.50	23.5	372.9	10.7
		7/22/21	7.53	22.7	378.1	12.0
BMO-2008-5B	909653	9/30/08	7.08	22.0	688	193
		2/18/09	7.03	21.5	691	192
		4/27/09	7.32	22.1	605	177
		8/4/09	7.35	22.3	724	174
		10/29/09	7.29	21.8	731	181
		10/29/09 DUP	7.29	21.8	731	185
		2/15/10	7.22	21.7	720	185
		4/15/10	7.21	23.0	571	194
		7/7/10	6.94	22.2	551	183
		10/5/10	6.85	22.3	722	201
		2/14/11	6.90	21.8	725	203
		5/12/11	7.06	21.5	722	195
		7/13/11	6.99	22.0	712	200
		12/7/11	6.95	19.9	730	213
		2/3/12	7.16	20.2	726	215
		4/18/12	6.96	21.7	712	192
		7/10/12	6.87	21.5	726	218
		10/16/12	6.69	21.4	712	207
		2/7/13	7.40	21.4	771.4	229
		2/12/13	6.49	20.7	752	227
		5/15/13	7.01	21.8	742	220
		8/20/13	7.00	21.7	792	226
		11/1/13	6.92	21.5	792	233
		2/11/14	6.88	21.5	804	230
		5/7/14	6.87	21.5	800	228
		8/19/14	6.99	21.6	795	221
		11/13/14	6.92	21.9	755	228
		2/3/15	7.05	21.8	755	227
		9/8/15	7.16	22.3	764	236
		3/14/16	7.06	21.5	774	237
		9/14/16	7.22	21.8	771	240
		3/1/17	7.07	21.5	756	243
		8/1/17	7.05	22	779	245
		2/8/18	7.28	21.4	798	267
		3/8/18	7.3	21.4	792	246
		3/8/18 DUP	7.3	21.4	792	246
		4/11/18	7.25	21.4	814	240
		5/29/18	7.31	22.1	811	262
		6/19/18	7.26	22.3	817	252
		7/25/18	7.02	23.0	794	250
		2/4/19	7.06	21.6	802	238
		8/7/19	7.09	22.3	814	239
		2/6/20	7.12	21.5	812	258
		8/11/20	7.07	23.0	785	240
		2/2/21	7.04	21.8	818	246
		7/12/21	7.12	22.2	849	257

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-5M	909552	10/2/08	7.13	23.6	551	107
		2/18/09	7.06	22.5	562	122
		4/27/09	7.50	22.9	501	111
		8/4/09	7.53	23.1	605	122
		10/29/09	7.35	22.4	610	123
		2/15/10	7.31	22.5	581	123
		4/16/10	7.28	22.6	509	125
		4/16/10 DUP	7.28	22.6	509	124
		7/7/10	7.02	23.5	482	123
		10/5/10	6.81	22.5	602	127
		2/14/11	6.95	22.2	591	124
		5/12/11	7.16	23.0	558	119
		7/12/11	7.22	22.7	590	126
		12/7/11	7.1	21.2	601	129
		2/3/12	6.99	21.5	589	130
		4/18/12	6.71	22.4	587	120
		7/10/12	6.82	22.4	592	135
		10/16/12	6.86	21.9	591	134
		2/12/13	6.65	21.6	610	139
		5/15/13	6.73	22.4	603	135
		8/20/13	7.18	22.5	640	138
		11/1/13	7.07	22.0	641	142
		2/11/14	6.84	22.1	646	138
		5/7/14	6.85	22.1	648	140
		8/19/14	6.97	22.1	645	143
		11/13/14	7.18	22.6	612	139
		2/3/15	7.26	22.5	612	143
		9/8/15	7.19	23.1	615	146
		3/14/16	7.26	22.5	618	142
		9/14/16	7.12	22.5	623	153
		3/1/17	6.97	22.4	621	157
		8/1/17	7.11	22.8	636	159
		2/8/18	7.26	22.4	646	168
		7/25/18	7.22	23.2	651	161
		2/4/19	7.40	22.1	654	155
		8/7/19	7.32	23.0	659	152
		2/6/20	7.32	22.2	662	169
		8/11/20	7.23	22.8	668	156
		2/2/21	7.17	22.6	672	164
		7/12/21	7.41	22.9	676	171
BMO-2008-6B	909146	7/16/08	7.36	24.1	475	53.3
		11/4/08	7.41	21.5	398	60.3
		2/19/09	7.23	21.1	444	54.3
		4/27/09	7.55	21.7	389	52.7
		8/4/09	7.48	23.4	470	48.5
		10/26/09	7.29	22.5	448	48.7
		2/15/10	7.53	21.2	391	33.5
		4/15/10	7.47	21.0	362	37.0
		7/1/10	7.24	22.2	361	40.1
		10/5/10	7.05	21.0	407	37.2
		2/14/11	7.27	21.8	397	40.2
		5/12/11	7.32	21.5	380	35.0
		7/12/11	7.27	21.1	390	37.8
		12/7/11	7.28	20.8	330	21.8
		2/3/12	7.28	20.1	346	23.0
		4/18/12	7.25	21.4	336	19.7
		7/10/12	6.86	21.2	328	21.9
		10/16/12	6.79	21.5	342	19.9
		2/12/13	6.87	20.7	339	16.2
		5/15/13	6.87	21.2	297	12.7
		8/20/13	7.36	21.5	310	10.6
		11/1/13	7.04	21.0	340	13.9
		2/11/14	7.38	21.6	290	20.1
		5/7/14	7.48	21.1	297	13.6
		8/19/14	7.08	21.6	298	13.4
		11/13/14	7.23	21.6	305	14.9
		2/3/15	7.24	20.6	272	12.1
		9/8/15	7.26	22.2	282	11.8
		3/14/16	7.47	21.9	267	12.4
		9/14/16	7.46	21.8	301	12.6
		3/1/17	7.37	21.4	271	12.1
		7/10/17	7.52	22.1	291	11.7
		2/8/18	7.26	20.9	284	13.3
		7/10/18	7.78	22.2	296	18.2
		2/4/19	7.38	21.6	280	10.7
		8/6/19	7.64	22.1	237	8.00
		2/3/20	7.25	21.3	264	8.60
		7/22/20	7.12	21.9	258	6.88
		2/2/21	7.39	21.6	264	<15.0
		7/12/21	7.22	22.0	282	7.55

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-6M	909019	7/10/08	M	22.1	702	182
		11/4/08	7.33	21.8	621	199
		2/20/09	7.11	22.0	702	193
		4/28/09	7.34	22.4	595	119
		8/4/09	7.40	23.3	750	189
		10/26/09	7.18	22.4	727	187
		2/15/10	7.29	20.8	733	193
		4/15/10	7.36	20.2	619	208
		7/1/10	7.15	22.0	571	198
		10/5/10	6.87	21.3	720	202
		2/14/11	6.80	21.3	731	202
		5/12/11	7.12	21.9	709	189
		7/12/11	7.06	21.8	709	194
		12/7/11	6.94	21.3	710	200
		2/3/12	7.03	21.2	720	206
		4/18/12	7.01	21.4	701	188
		7/10/12	6.67	21.4	702	208
		10/16/12	6.89	21.8	708	207
		2/12/13	6.71	20.5	740	204
		5/8/13	7.01	21.9	726	212
		8/20/13	6.99	21.7	772	213
		11/1/13	6.83	21.5	773	223
		2/11/14	6.81	21.8	786	217
		5/7/14	6.77	21.3	788	220
		8/19/14	6.9	21.9	774	210
		11/13/14	7.14	22.0	740	218
		2/3/15	7.20	21.9	741	216
		9/8/15	7.09	23.0	750	222
		3/14/16	7.16	22.1	768	229
		9/14/16	7.06	22.2	760	229
		3/1/17	6.92	21.9	745	237
		7/10/17	7.04	22.6	742	218
		2/8/18	7.3	21.8	775	244
		7/10/18	7.26	22.1	761	234
		2/4/19	7.35	22.0	753	209
		8/6/19	7.18	22.4	755	199
		2/3/20	7.25	21.8	751	216
		7/22/20	7.22	22.1	752	206
		2/2/21	7.16	22.0	740	199
		7/12/21	7.16	22.2	740	204
BMO-2008-7M	908794	7/14/08	7.63	25.2	500	31.4
		11/6/08	7.53	22.6	380	34.5
		2/18/09	7.31	23.3	452	27.6
		5/11/09	7.43	24.4	426	26.0
		8/6/09	7.81	24.1	486	25.1
		10/27/09	7.53	23.0	470	26.1
		2/17/10	7.57	23.4	452	25.4
		2/17/10 DUP	7.57	23.4	452	25.0
		4/15/10	7.52	23.2	415	26.0
		7/6/10	7.28	23.5	391	22.8
		2/14/11	7.18	22.0	465	27.5
		2/14/11 DUP	7.18	22.0	465	26.4
		7/15/11	7.1	22.8	466	26.5
		1/30/12	7.16	22.0	454	26.4
		7/11/12	7.18	22.7	455	28.1
		2/15/13	7.23	21.8	471	25.8
		8/28/13	7.15	22.9	494	27.7
		8/28/13 DUP	7.15	22.9	494	27.8
		2/13/14	7.09	22.6	494	27.8
		7/22/14	7.13	23.2	488	27.3
		9/14/15	7.51	23.4	469	30.6
		8/18/16	7.43	23.3	457	30.0
		7/10/17	7.36	23.5	464	33.1
		7/23/18	7.36	23.5	464	34.7
		8/8/19	7.77	23.6	478	35.5
		8/8/19 DUP	7.77	23.6	478	35.1
		7/23/20	7.61	23.0	483	37.2
		8/2/21	7.53	23.1	487	36.9

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-8B	910097	12/5/08	6.47	20.1	2480	1890
		2/19/09	6.19	21.0	2958	1570
		5/5/09	6.18	21.3	2888	1370
		8/10/09	6.42	21.5	2897	1250
		11/9/09	6.33	21.8	2889	1510
		11/9/09 DUP	6.33	21.8	2889	1520
		3/3/10	6.51	20.4	3016	1320
		4/16/10	6.06	21.4	1682	1470
		7/1/10	6.10	21.4	1594	1440
		7/15/11	6.21	21.2	2940	1380
		1/30/12	6.22	21.2	2880	1480
		1/30/12 DUP	6.22	21.2	2880	1480
		7/12/12	6.41	21.1	2860	1440
		2/13/13	6.25	20.7	2830	1330
		8/12/13	6.38	21.3	2780	1420
		7/24/14	6.26	21.2	2520	1380
		7/10/17	6.69	22.2	1540	1240
		8/8/19	6.50	22.2	2640	1130
		8/2/21	6.71	23.2	2550	1130
BMO-2008-8M	909711	12/9/08	7.16	23.4	852	197
		2/19/09	7.27	23.5	758	147
		2/19/09 DUP	7.27	23.5	758	149
		5/5/09	7.19	25.1	680	122
		8/10/09	7.49	24.8	673	107
		11/5/09	7.30	25.4	675	104
		3/3/10	7.70	24.1	641	99.5
		4/16/10	7.29	24.5	541	97.0
		7/1/10	6.99	25.0	502	94.7
		1/24/11	7.05	23.4	595	98.2
		7/15/11	6.89	22.1	590	79.9
		1/30/12	7.36	23.9	565	77.6
		7/12/12	7.15	24.2	554	73.1
		7/12/12 DUP	7.15	24.2	554	73.2
		2/14/13	7.1	24.3	565	64.9
		8/12/13	7.19	24.6	585	65.0
		2/19/14	7.07	24.3	579	63.3
		2/19/14 DUP	7.07	24.3	579	63.4
		7/24/14	7.07	24.7	569	66.8
		9/15/15	7.35	25.0	541	67.0
		9/15/16	7.52	24.6	535	63.5
		9/15/16 DUP	7.52	24.6	535	63.9
		7/10/17	7.28	24.7	542	74.1
		7/23/18	7.48	24.8	536	76.9
		7/23/18 DUP	7.48	24.8	536	74.5
		8/8/19	7.63	25.2	542	66.8
		7/23/20	7.48	24.8	547	74.3
		8/2/21	6.79	24.6	1908	795
		8/2/21 DUP	6.79	24.6	1908	797
BMO-2008-9M	909255	8/8/08	7.72	25.7	415	47.3
		11/5/08	7.89	21.4	444	54.4
		2/26/09	7.71	24.5	482	28.8
		5/12/09	7.76	24.8	449	51.7
		8/17/09	7.76	25.6	534	53.4
		11/3/09	7.82	24.9	552	56.9
		3/4/10	8.07	22.4	520	58.6
		4/6/10	6.74	23.8	484	60.1
		7/1/10	7.40	24.6	425	61.0
		2/10/11	6.79	24.0	520	64.2
		7/15/11	7.56	24.3	516	67.0
		2/1/12	7.54	22.4	516	67.4
		7/12/12	7.68	24.2	513	68.9
		2/13/13	7.37	23.8	531	68.2
		8/12/13	7.47	24.2	553	71.1
		2/18/14	7.26	23.8	569	74.1
		7/24/14	7.36	24.4	571	74.2
		9/14/15	7.68	24.7	550	85.6
		9/15/16	7.64	24.4	571	86.7
		7/11/17	7.57	24.5	572	92.0
		7/26/18	7.66	24.4	584	97.2
		8/12/19	7.59	24.5	584	91.7
		7/20/20	7.68	24.7	602	97.0
		8/18/21	7.66	24.9	602	105

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-10GL	909435	8/20/08	6.22	29.5	2924	1320
		11/5/08	6.47	25.3	2573	1290
		2/25/09	6.34	26.8	2646	1180
		5/12/09	6.35	26.2	2402	1120
		8/11/09	6.52	27.3	2661	1030
		11/2/09	6.52	26.7	2565	1100
		3/4/10	6.76	24.1	2937	1080
		4/8/10	6.03	25.6	1575	1260
		7/2/10	6.16	26.3	1338	1020
		7/13/11	6.32	24.8	1726	644
		2/2/12	6.45	24.8	1600	624
		7/13/12	6.71	25.7	1571	545
		2/18/13	6.45	25.4	1530	498
		2/18/13 DUP	6.45	25.4	1530	494
		8/13/13	6.57	25.5	1586	520
		8/7/14	6.56	25.8	1417	442
		7/11/17	6.14	25.6	3790	1810
		8/1/19	6.20	25.7	3860	1770
		8/17/21	6.20	25.3	3870	1960
BMO-2008-10GU	909272	8/4/08	6.41	23.6	3660	2210
		11/5/08	6.15	20.2	3343	1890
		2/25/09	5.96	22.7	3426	1740
		5/6/09	5.99	23.2	3359	1710
		8/11/09	6.28	22.5	3348	1690
		11/2/09	6.27	21.8	3157	1730
		3/10/10	6.67	19.1	3951	1700
		4/7/10	5.96	20.4	3210	1510
		7/6/10	5.90	21.8	1610	1670
		7/13/11	6.12	22.3	3890	1670
		2/1/12	6.09	19.2	3820	1870
		8/19/13	6.10	21.0	3630	1780
		8/9/17	6.06	20.4	3860	1990
		8/9/17 DUP	6.06	20.4	3860	1960
		8/1/19	6.11	21.3	3900	1830
		8/17/21	6.06	20.7	3920	2080
BMO-2008-11G	909434	8/22/08	8.02	28.2	359	14.2
		11/12/08	7.96	24.2	257	13.9
		2/26/09	7.92	25.1	319	12.3
		4/28/09	8.14	25.5	273	11.8
		8/12/09	8.24	25.3	365	11.2
		11/9/09	8.03	25.5	339	13.9
		3/1/10	8.37	23.2	338	13.0
		4/9/10	6.88	24.5	301	13.0
		7/1/10	6.97	25.4	298	12.3
		2/10/11	6.99	24.0	327	11.7
		7/22/11	7.26	24.6	331	12.1
		7/22/11 DUP	7.26	24.6	331	12.0
		1/31/12	7.41	24.1	328	11.9
		8/14/12	7.35	24.6	337	12.3
		2/13/13	7.54	24.2	343	11.9
		8/27/13	7.48	24.9	363	12.2
		2/19/14	7.51	24.2	363	12.2
		8/14/14	7.58	24.7	360	12.4
		2/5/15	7.87	24.8	334	12.5
		9/14/15	7.78	25.3	335	12.3
		9/14/15 DUP	7.78	25.3	335	12.4
		3/15/16	7.76	24.9	334	12.2
		8/17/16	7.96	25.6	332	12.6
		3/2/17	7.59	24.8	328	12.5
		7/11/17	7.85	25.4	333	12.4
		2/12/18	7.96	24.4	341	13.1
		7/12/18	7.89	25.4	339	13.3
		1/28/19	7.99	25.2	338	12.2
		8/6/19	7.88	25.4	338	12.2
		2/4/20	7.88	24.7	341	13.3
		8/13/20	7.92	25.3	340	11.9
		8/13/20 DUP	7.92	25.3	340	8.16
		2/2/21	7.91	24.7	338	12.5
		7/22/21	7.86	25.5	341	12.6

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-13B	909551	10/3/08	6.49	21.6	2180	980
		2/17/09	6.51	20.9	1941	1000
		5/6/09	6.55	22.0	1891	930
		8/5/09	6.63	21.5	2137	950
		10/28/09	6.81	19.7	2259	1010
		2/16/10	6.87	20.8	2093	997
		4/14/10	6.38	21.2	1346	974
		7/6/10	6.37	21.8	1208	972
		7/15/11	6.44	20.8	2160	1010
		2/9/12	6.68	20.3	2180	1060
		7/11/12	6.55	21.2	2190	1080
		2/27/13	6.54	20.3	2160	1090
		9/4/13	6.57	20.8	2070	1050
		8/19/14	6.63	21.2	1890	1070
		8/2/17	6.67	21.2	2130	1050
		8/20/19	6.68	21.5	2190	1050
		8/16/21	6.67	21.9	2220	1110
BMO-2008-13M	909760	12/3/08	7.73	24.1	1463	494
		2/17/09	8.21	22.7	1340	441
		4/29/09	8.04	24.8	1126	217
		8/5/09	8.04	25.4	1392	387
		10/28/09	8.12	21.4	1347	403
		2/16/10	8.07	24.9	1297	375
		4/13/10	8.06	23.2	1130	398
		7/2/10	8.30	23.9	1027	386
		7/15/11	8.4	23.4	1331	388
		2/6/12	8.47	23.2	1300	ND
		8/13/12	8.75	24.2	1311	397
		2/15/13	8.8	22.4	1280	383
		9/6/13	8.81	23.8	1300	402
		8/20/14	8.48	23.6	1362	410
		8/15/17	8.42	24.7	1305	386
		8/20/19	8.78	23.9	1299	388
		8/16/21	8.73	24.3	1326	418
BMO-2010-1M	219957	9/9/10	7.82	24.6	727.0	150
		11/11/10	8.68	19.9	570	98
		2/11/11	8.15	20.8	589	138
		5/12/11	7.74	23.0	710	129
		8/31/11	7.74	23.2	562	154
		12/13/11	7.63	21.3	713	149
		2/8/12	7.69	22.0	605	158
		4/24/12	7.08	23.4	701	150
		7/9/12	6.37	24.3	715	161
		10/17/12	7.40	23.9	699	154
		2/13/13	7.09	22.2	712	152
		5/8/13	7.12	22.5	725	160
		8/15/13	7.39	23.5	767	156
		11/4/13	7.38	22.6	774	163
		2/12/14	8.33	22.0	672	161
		6/2/14	7.55	23.3	771	165
		8/4/14	7.38	23.8	772	179
		11/12/14	7.43	23.4	733	165
		9/9/15	7.59	24.2	729	170
		8/25/16	7.93	23.3	646	169
		7/12/17	7.70	24.0	715	180
		8/7/18	7.85	23.8	751	169
		7/30/19	7.54	24.0	7.32	173
		7/20/20	7.75	24.0	771	187
		7/15/21	7.68	24.0	762	183
BMO-2010-2M	219958	9/15/10	6.66	22.6	2054	915
		11/11/10	6.97	20.6	1800	935
		2/10/11	6.53	20.8	2120	950
		5/13/11	6.54	21.1	2160	887
		7/14/11	6.62	21.5	2160	917
		12/13/11	6.59	20.3	2140	984
		1/30/12	6.41	21.4	2180	989
		4/18/12	6.48	21.2	2170	893
		7/9/12	6.41	21.8	2190	1030
		10/17/12	6.60	21.3	2200	998
		2/13/13	6.45	21.0	2190	962
		5/8/13	6.42	21.0	2160	996
		8/15/13	6.58	21.2	2157	978
		11/4/13	6.53	21.9	2120	998
		2/12/14	6.52	21.0	2160	1000
		5/8/14	6.46	21.0	1990	1010
		8/14/14	6.48	21.0	1940	1040
		8/14/14 DUP	6.48	21.0	1940	1030
		11/12/14	6.59	21.3	2210	939
		7/12/17	6.6	22.2	2160	967
		7/30/19	6.67	22.1	2190	894
		7/15/21	6.70	21.7	2150	927

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2010-3B	219970	7/29/10	7.48	23.1	420	16.0
		11/10/10	7.43	21.2	370	14.9
		1/20/11	7.44	20.9	416.1	14.4
		4/7/11	7.38	20.1	424.6	14.9
		7/13/11	7.68	22.3	404.5	13.8
		10/13/11	7.63	23.4	411.2	15.9
		2/2/12	7.52	20.4	400.2	16.9
		2/2/12 DUP	7.52	20.4	400.2	17.1
		4/24/12	7.30	21.8	390	16.0
		7/5/12	7.51	22.4	419.1	15.7
		10/18/12	7.58	21.6	411.9	17.0
		1/16/13	7.58	20.8	420.5	17.4
		4/16/13	7.65	21.2	415.1	17.5
		7/23/13	7.67	21.8	420	19.8
		10/8/13	7.72	20.9	420.3	16.8
		1/15/14	7.65	20.2	431.2	18.8
		5/13/14	7.66	21.0	421.2	18.0
		5/13/14 DUP	7.66	21.0	421.2	18.0
		7/15/14	7.63	21.8	419.1	19.0
		10/14/14	7.48	22.6	395	17.4
		10/14/14 DUP	7.48	22.6	395	18.1
		1/28/15	7.59	22.2	420	19.2
		7/22/15	7.67	21.8	420	20.7
		2/2/16	7.67	18.9	407.5	16.1
		7/12/16	7.59	21.0	424.9	16.8
		1/18/17	7.45	20.5	413.9	18.8
		7/11/17	7.40	20.7	424.6	16.5
		1/8/18	7.42	20.4	415.7	21.8
		1/8/18 DUP	7.42	20.4	415.7	21.1
		7/10/18	7.44	20.5	428.1	16.0
		1/8/19	7.42	20.2	418.6	19.5
		7/16/19	7.41	20.5	424.5	26.0
		7/16/19 DUP	7.41	20.5	424.5	25.8
		1/6/20	7.67	20.2	425.7	21.0
		8/4/20	7.45	21.4	427.1	19.3
		1/5/21	7.48	20.8	425.4	22.9
		7/13/21	7.43	20.4	433.4	20.9
		7/13/21 DUP	7.43	20.4	433.4	21.2
BMO-2010-3M	219969	7/31/10	7.73	24.3	390	14.8
		11/10/10	7.66	21.8	340	12.6
		11/10/10 DUP	7.66	21.8	340	12.7
		1/20/11	7.72	22.6	380.4	11.5
		4/7/11	7.38	23.5	376.5	12.3
		8/25/11	7.17	24.3	340	10.4
		10/13/11	7.73	23.6	375.8	10.5
		2/2/12	7.68	22.0	367.1	10.6
		4/24/12	7.49	23.9	370	10.1
		7/5/12	7.66	23.7	381.8	10.3
		10/18/12	7.71	23.3	379.9	10.4
		1/16/13	7.68	22.1	383.1	10.0
		4/16/13	7.83	22.3	383.7	10.2
		4/16/13 DUP	7.83	22.3	383.7	10.2
		7/23/13	7.80	23.4	386.0	10.7
		10/8/13	7.76	22.8	384.8	9.4
		1/15/14	7.76	22.1	389.8	9.1
		5/13/14	7.75	22.9	387.1	10.4
		7/15/14	7.74	23.1	386.9	10.2
		10/14/14	7.57	24.1	367.0	10.8
		1/28/15	7.70	24.1	391	10.6
		7/22/15	7.79	23.5	383.9	8.64
		7/22/15 DUP	7.79	23.5	383.9	9.25
		2/2/16	7.83	19.8	367.5	8.46
		7/12/16	7.75	22.7	383.3	10.1
		1/18/17	7.54	22.2	382.3	9.97
		7/11/17	7.52	22.6	384.8	8.97
		1/8/18	7.52	22.2	379.7	9.69
		7/10/18	7.55	22.1	389.2	9.17
		1/8/19	7.42	22.0	378.4	8.97
		7/16/19	7.53	22.4	385.6	8.97
		1/6/20	7.69	21.2	369.3	9.01
		1/6/20 DUP	7.69	21.2	369.3	9.07
		8/4/20	7.53	23.1	388.6	8.98
		1/5/21	7.54	22.7	384.1	9.23
		7/13/21	7.55	22.2	391.6	11.3

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2012-1M	221388	11/13/12	7.55	21.3	933.7	231
		2/27/13	6.97	22.4	793	205
		5/8/13	6.77	22.9	814	197
		8/14/13	7.09	22.9	858	202
		11/1/13	6.98	22.4	850	210
		2/13/14	7.00	22.2	883	214
		5/8/14	6.90	22.9	875	207
		7/22/14	6.99	22.6	857	210
		11/13/14	7.10	22.6	839	208
		2/4/15	7.40	22.5	843	214
		9/10/15	7.29	23.3	862	216
		3/3/16	7.32	23.4	888	222
		8/17/16	7.15	23.3	928	222
		3/2/17	6.98	23.1	922	236
		3/2/17 DUP	6.98	23.1	922	228
		7/24/17	7.08	23.0	938	250
		8/21/17	7.14	22.8	944	221
		2/13/18	7.24	22.7	960	237
		7/16/18	7.33	23.4	960	236
		1/29/19	7.25	22.6	956	215
		7/31/19	7.22	23.3	959	213
		2/4/20	7.25	22.8	954	223
		7/21/20	7.22	23.1	960	217
		2/18/21	7.13	22.9	960	213
		7/14/21	7.19	23.3	964	221
BMO-2014-1BL	917394	11/7/14	7.21	24.2	716	160
		1/29/15	7.46	22.2	686	167
		4/15/15	7.43	21.9	695.0	167
		7/29/15	7.57	22.8	695.0	149
		10/7/15	7.55	21.6	685.9	156
		10/7/15 DUP	7.55	21.6	685.9	156
		2/4/16	7.66	20.2	675.4	146
		4/6/16	7.43	21.7	696.3	152
		7/14/16	7.47	21.9	690.7	151
		11/2/16	7.28	21.6	689.9	143
		1/24/17	7.29	21.4	684.6	156
		7/13/17	7.26	21.6	687.5	158
		1/10/18	7.24	21.5	685.3	159
		7/12/18	7.25	21.7	693.4	163
		1/10/19	7.15	21.8	683.6	158
		7/18/19	7.15	22.5	691.5	150
		1/8/20	7.52	23.9	701.7	163
		3/9/21	7.3	21.8	719.3	160
		7/15/21	7.29	21.2	721.0	178
BMO-2014-1BU	917393	11/13/14	21.8	22.1	571	84
		1/28/15	7.45	21.6	694	170
		4/15/15	7.40	21.3	735.2	189
		7/29/15	7.55	22.3	729.7	165
		10/7/15	7.51	20.9	728.8	182
		2/4/16	7.51	20.1	715.7	163
		4/6/16	7.47	21.0	733.5	172
		7/14/16	7.45	21.6	724.8	170
		7/14/16 DUP	7.45	21.6	724.8	169
		11/2/16	7.29	20.9	719.5	155
		1/24/17	7.28	20.5	722.8	178
		7/13/17	7.27	20.8	736.4	184
		1/10/18	7.25	20.5	694.3	158
		7/12/18	7.24	20.7	730.3	181
		1/10/19	7.16	20.4	729.9	172
		1/10/19 DUP	7.16	20.4	729.9	175
		7/18/19	7.15	20.5	717.9	170
		1/8/20	7.36	19.2	703.5	169
		8/6/20	7.23	21.2	732.1	168
		1/7/21	7.24	21.0	718.1	185
		7/15/21	7.30	20.2	733.1	161
BMO-2014-2BL	917452	11/20/14	7.34	22.8	804	210
		1/29/15	7.36	20.8	1109	463
		4/15/15	7.27	21.2	1169	463
		7/29/15	7.34	22.5	1191	452
		10/7/15	7.41	20.8	1180	467
		2/4/16	7.38	19.7	1164	434
		2/4/16 DUP	7.38	19.7	1164	428
		4/6/16	7.43	21.2	1187	456
		7/14/16	7.27	21.9	1182	437
		11/2/16	7.18	20.8	1184	422
		1/24/17	7.11	21.3	1170	453
		9/6/17	7.08	20.7	1197	441
		1/10/18	7.10	20.5	1167	448
		7/12/18	7.12	20.4	1186	445
		1/10/19	7.07	20.4	1168	470
		7/18/19	7.01	20.4	1178	433
		1/8/20	7.37	18.1	1147	454
		8/6/20	7.08	21.1	1187	421
		1/7/21	7.09	20.8	1154	481
		7/15/21	7.15	20.3	1174	420

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2014-2BU	917453	12/1/14	7.35	20.8	819.2	230
		1/30/15	7.65	19.9	524	63.8
		4/15/15	7.56	20.7	536.1	64.8
		7/29/15	7.62	22.2	538.7	58.2
		10/7/15	7.74	20.6	541.1	62.0
		2/4/16	7.58	19.8	528.0	56.5
		4/6/16	7.58	21.7	539.3	58.6
		7/14/16	7.56	21.4	536.6	59.9
		11/2/16	7.39	20.2	535.9	55.8
		1/24/17	7.36	20.1	531.2	61.0
		7/13/17	7.38	20.1	536.9	60.1
		1/10/18	7.35	19.8	525.4	57.0
		7/12/18	7.37	20.1	537.5	55.6
		1/10/19	7.31	19.8	534.0	55.2
		7/18/19	7.27	19.8	544.3	54.9
		1/8/20	7.53	18.6	535.4	58.6
		8/6/20	7.35	20.6	551.0	56.4
		1/7/21	7.35	20.4	539.3	58.2
		7/15/21	7.40	19.8	545.4	84.9
BMO-2014-3BL	917527	2/13/15	7.34	22.4	384	7.84
		4/15/15	7.72	21.6	402.3	8.73
		7/29/15	7.72	23.1	413.7	7.92
		10/7/15	7.64	21.6	415.6	8.51
		2/4/16	7.62	20.9	409.8	8.36
		4/6/16	7.62	21.9	424.9	8.62
		7/14/16	7.62	22.7	419.4	8.77
		11/2/16	7.40	21.4	423.2	7.98
		1/25/17	7.38	21.4	406.4	8.37
		7/13/17	7.37	21.7	423.3	8.69
		1/12/18	7.31	21.3	402.0	8.25
		1/12/18	7.31	21.3	402.0	8.25
		7/12/18	7.42	21.5	423.0	7.71
		1/10/19	7.29	21.4	412.3	7.73
		7/18/19	7.31	21.5	413.5	7.45
		1/9/20	7.58	20.0	414.7	8.31
		8/6/20	7.33	22.3	415.1	7.59
		1/7/21	7.33	22.0	415.3	7.63
		7/15/21	7.36	21.3	412.6	10.0
BMO-2014-3BU	917494	2/24/15	7.64	18.2	471.4	8.22
		4/15/15	7.67	20.4	469.5	8.71
		7/29/15	7.62	21.9	471.9	7.46
		10/7/15	7.62	20.4	467.9	7.82
		2/4/16	7.64	19.7	466.4	7.68
		4/6/16	7.53	20.9	473.2	8.25
		7/14/16	7.56	21.3	465.9	8.57
		11/2/16	7.40	20.0	471.1	7.79
		1/25/17	7.36	20.0	458.1	8.06
		7/13/17	7.34	20.2	472.9	8.55
		1/12/18	7.28	20.0	457.5	8.06
		7/12/18	7.35	20.0	470.0	7.95
		1/10/19	7.28	19.9	470.2	7.54
		7/18/19	7.28	20.0	474.2	7.63
		1/9/20	7.57	17.8	471.2	8.00
		8/6/20	7.31	20.7	478.8	7.18
		1/7/21	7.31	20.6	478.1	7.04
		7/15/21	7.35	19.9	477.1	9.35

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2014-4B	917620	3/4/15	7.68	20.3	524.0	64.7
		4/14/15	7.61	20.9	494.7	61.7
		7/23/15	7.60	21.7	493.7	57.2
		10/6/15	7.70	20.5	481.9	52.7
		2/3/16	7.74	19.8	491.1	58.2
		4/5/16	7.61	20.9	491.9	53.2
		7/13/16	7.55	21.3	478.3	48.0
		7/13/16 DUP	7.55	21.3	478.3	48.3
		11/1/16	7.58	20.6	472.7	42.5
		11/1/16 DUP	7.58	20.6	472.7	42.1
		1/23/17	7.42	20.4	493.0	63.6
		7/12/17	7.41	20.5	483.0	56.7
		1/9/18	7.39	20.3	490.9	64.7
		7/11/18	7.38	20.3	467.7	47.4
		1/9/19	7.36	20.2	490.2	62.1
		7/17/19	7.36	20.3	494.9	62.8
		1/7/20	7.66	18.1	492.5	63.9
		8/5/20	7.26	21.2	487.7	56.2
		1/6/21	7.44	20.9	484.0	54.3
		7/14/21	7.38	20.2	472.9	80.1
BMO-2014-4BL	917619	3/1/15	7.63	21.1	671.9	165
		4/14/15	7.63	21.4	665.1	184
		7/23/15	7.66	21.9	669.7	185
		7/23/15 DUP	7.66	21.9	669.7	169
		10/6/15	7.71	20.9	660.4	176
		2/3/16	7.69	20.1	660.2	165
		4/5/16	7.53	21.2	671.7	171
		7/13/16	7.51	21.5	653.5	165
		11/1/16	7.47	20.9	665.8	160
		1/23/17	7.37	20.6	672.1	182
		7/12/17	7.42	20.7	674.4	178
		1/9/18	7.36	20.5	681.5	183
		7/11/18	7.32	20.6	687.8	187
		1/9/19	7.36	20.4	701.1	193
		7/17/19	7.30	20.5	720.3	192
		1/7/20	7.61	19.1	725.6	206
		8/5/20	7.21	21.4	687.8	166
		1/6/21	7.39	21.1	642.0	153
		7/14/21	7.34	20.3	612.8	182
BMO-2015-1B	917622	3/15/15	8.11	20.2	676.3	175
		4/14/15	7.59	20.9	680.1	187
		7/23/15	7.68	21.7	690.7	201
		10/6/15	7.66	20.6	681.9	190
		2/3/16	7.64	19.8	678.5	173
		4/5/16	7.57	20.5	691.4	181
		7/13/16	7.52	21.2	675.3	172
		11/1/16	7.44	20.4	683.6	163
		1/23/17	7.43	20.4	692.6	193
		7/12/17	7.44	20.5	697.6	190
		1/9/18	7.36	20.3	703.1	203
		7/11/18	7.39	20.3	705.9	194
		1/9/19	7.32	20.3	711.9	208
		7/17/19	7.32	20.3	726.4	203
		1/7/20	7.45	18.3	719.8	210
		8/5/20	7.34	21.0	725.0	206
		1/6/21	7.33	20.7	718.2	213
		7/14/21	7.36	20.0	728.2	192
BMO-2015-1BL	917621	3/12/15	7.70	20.8	708.2	221
		4/14/15	7.55	20.7	733.4	239
		7/23/15	7.62	22.3	747.3	259
		10/6/15	7.74	20.8	747.3	232
		2/3/16	7.71	19.2	736.1	219
		2/3/16 DUP	7.71	19.2	736.1	215
		4/5/16	7.58	21.0	767.1	231
		7/13/16	7.49	21.6	763.8	231
		11/1/16	7.41	20.6	770.0	221
		1/23/17	7.39	20.5	769.1	249
		7/12/17	7.37	20.6	780.5	253
		1/9/18	7.38	20.5	784.5	251
		7/11/18	7.35	20.5	791.5	253
		1/9/19	7.30	20.4	800.5	259
		7/17/19	7.29	20.4	797.7	255
		1/7/20	7.38	19.6	787.0	261
		8/5/20	7.31	21.2	820.1	266
		1/6/21	7.30	21.7	818.6	277
		3/9/21	7.35	20.8	839.6	260
		7/14/21	7.32	20.2	840.4	268

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2015-2B	917827	3/19/15	7.43	20.0	795.2	288
		4/14/15	7.41	20.7	832.4	271
		7/23/15	7.47	22.2	847.5	292
		10/6/15	7.60	20.9	844.3	262
		2/3/16	7.48	20.4	823.2	247
		4/5/16	7.44	21.4	849.8	258
		7/13/16	7.33	21.8	837.2	250
		11/1/16	7.26	20.6	848.1	247
		1/23/17	7.26	20.5	849.6	268
		7/12/17	7.27	20.4	847.9	273
		1/9/18	7.25	20.2	841.9	276
		7/11/18	7.17	20.4	856.9	261
		1/9/19	7.19	20.1	873.3	277
		7/17/19	7.16	20.3	875.0	270
		1/7/20	7.45	17.4	864.6	277
		8/5/20	7.22	21.1	884.1	299
		1/6/21	7.18	20.7	877.4	289
		7/14/21	7.15	20.1	895.6	270
BMO-2015-2BL	917828	3/26/15	7.29	22.3	887.1	280
		4/14/15	7.38	20.9	860.0	305
		7/23/15	7.43	22.1	902.3	323
		10/6/15	7.54	21.2	890.3	304
		2/3/16	7.45	20.5	884.7	278
		4/5/16	7.42	21.3	903.9	296
		4/5/16 DUP	7.42	21.3	903.9	292
		7/13/16	7.33	21.8	903.7	296
		11/1/16	7.24	20.8	905.7	282
		1/23/17	7.25	20.6	909.8	315
		7/12/17	7.23	20.7	921.0	317
		1/9/18	7.19	20.5	915.5	320
		7/11/18	7.14	20.5	923.8	307
		1/9/19	7.15	20.3	924.6	320
		7/17/19	7.11	20.5	942.6	318
		1/7/20	7.14	17.1	918.0	323
		8/5/20	7.13	21.2	946.2	327
		8/5/20 DUP	7.13	21.2	946.2	333
		1/6/21	7.13	20.9	941.5	336
		7/14/21	7.11	20.3	957.5	307
BOOTH	914931	1/5/13	7.67	18.5	574.3	91.4
		6/14/13	7.61	51.1	604.2	95
		6/14/13 DUP	7.61	51.1	604.2	92.5
		7/17/13	7.75	23.2	497.6	75
		10/18/13	7.66	19.3	597.6	92.6
BURKE	212268	2/7/08	7.17	23.0	411	29.5
		4/22/08	7.13	27.0	423	26
		8/5/08	7.06	26.8	496	21.9
		10/20/08	7.57	26.0	466	20.5
		2/11/09	7.23	25.0	363	23.9
		4/28/09	7.16	26.1	369	24.2
		8/19/09	7.36	26.7	486	22.5
		12/16/09	7.28	25.7	488	26
		3/2/10	7.56	12.3	432	23.8
		4/22/10	7.49	16.4	452	24.8
		7/21/10	7.56	25.6	423.7	33.1
		10/10/13	7.87	21.9	469.6	27.5
		1/8/14	8.17	10.9	464.9	28.6
		4/16/14	7.80	21.1	471.0	28.3
		7/21/14	8.19	27.8	448.8	29.6
		10/21/14	8.06	22.2	456.0	29.1
		8/3/15	7.72	27.4	479.3	27.2
		7/21/16	7.98	26.4	478.0	28.6
		7/21/16 DUP	7.98	26.4	478.0	28.5
		7/25/17	7.91	23.5	475.3	31.7
		7/26/18	7.51	27.4	480.8	30.5
		7/9/19	7.48	26.2	487.1	30.8
		8/11/20	7.57	28.0	491.2	34.3
		7/29/21	7.77	23.8	483.3	31.5

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
CHAMBERS	629807	3/6/08	7.73	17.8	408	7.7
		5/5/08	7.15	22.1	421	6
		7/14/08	7.43	23.2	434	5.8
		10/15/08	7.41	22.5	420	4
		1/27/09	7.57	21.5	312	5.3
		4/14/09	7.42	22.4	384	6.8
		7/15/09	7.83	23.4	414	4.3
		10/13/09	7.41	22.6	410	6.5
		1/26/10	7.31	21.3	416	5.7
		4/23/10	7.47	20.9	427.5	8.34
		7/21/10	7.49	23.1	430	7.75
		10/19/10	8.00	23.0	440	7.04
		1/18/11	7.47	22.4	390	7.30
		4/11/11	7.18	22.0	427.3	7.74
		7/18/11	7.18	23.8	420.2	8.18
		10/12/11	7.33	22.6	425.8	7.8
		2/6/12	7.43	21.8	434.6	9.08
		4/23/12	7.46	22.7	460	8.84
		7/17/12	7.31	22.4	410	8.41
		10/8/12	7.44	22.4	430.0	10.1
		1/10/13	7.57	21.5	440.8	9.64
		4/18/13	7.49	21.7	434.1	9.78
		7/15/13	7.40	22.7	434.6	9.81
		7/15/13 DUP	7.40	22.7	434.6	10.2
		10/10/13	7.51	21.8	439.7	10.3
		1/13/14	7.56	21.0	431.3	10.7
		4/14/14	7.48	22.2	435.9	10.9
		7/10/14	7.50	22.9	436.4	11.0
		10/17/14	7.31	22.5	456.0	10.8
		7/21/15	7.48	22.7	447.7	11.4
		7/14/16	7.49	22.8	459.8	13.2
		7/25/17	7.34	21.3	450.4	13.2
		7/10/19	7.27	28.0	417.7	6.88
COB MW-1	903992	2/22/08	6.93	21.2	1401	720
		5/20/08	6.88	22.0	2050	980
		7/30/08	6.88	21.7	1780	730
		10/23/08	6.95	21.2	1690	750
		2/12/09	6.92	21.1	1313	750
		4/21/09	7.15	22.7	1366	720
		7/22/09	6.94	21.6	1570	680
		7/22/09 DUP	6.94	21.6	1570	730
		10/22/09	6.81	22.3	1582	820
		2/4/10	7.04	21.1	1653	680
		4/20/10	6.92	21.8	1836	783
		7/13/10	7.02	22.3	2004	919
		7/14/11	6.78	21.4	1924	927
		7/12/12	6.74	23.4	1760	805
		2/5/13	6.95	21.5	1773	877
		7/11/13	7.17	21.4	1858	842
		7/9/14	6.95	21.5	2000	1000
		7/9/14 DUP	6.95	21.5	2000	1020
		7/27/15	6.96	21.6	1993	902
COB MW-1B	225906	7/20/16	6.63	21.8	2405	1210
		7/19/17	6.51	20.9	2474	1160
		7/24/19	6.70	20.6	1793	827
		7/21/21	6.75	20.8	1790	918
		7/21/21 DUP	6.75	20.8	1790	844

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COB MW-2	903984	5/20/08	7.32	21.2	490	40.5
		7/30/08	7.34	20.8	511	37.6
		10/23/08	7.36	20.3	498	34.9
		2/12/09	7.35	20.2	379	35.6
		4/23/09	7.33	21.8	431	34
		7/22/09	7.36	21.3	483	33.5
		10/22/09	7.24	21.0	454	32.2
		3/3/10	7.55	19.7	450	33.5
		4/26/10	7.28	21.3	479.6	34.8
		7/13/10	6.91	21.2	479.5	30.4
		7/13/10 DUP	6.91	21.2	479.5	30.6
		1/20/11	7.47	20.7	440	29.6
		7/14/11	7.11	21.1	472.6	29.8
		1/31/12	7.53	20.3	466.6	30.0
		7/12/12	7.36	21.2	630	29.2
		1/9/13	7.48	20.0	473.5	35.8
		7/25/13	7.34	20.9	485.4	40.6
		1/6/14	7.58	19.9	487.8	40.5
		7/9/14	7.52	20.5	503.5	43.7
		2/4/15	7.38	20.3	619	40.5
		7/27/15	7.57	20.8	514.6	40.3
		7/27/15 DUP	7.57	20.8	514.6	41.6
		1/11/16	7.54	19.5	510.6	41.2
		7/20/16	7.52	20.0	523.7	41.6
		1/19/17	7.40	19.5	525.8	41.5
		7/19/17	7.29	19.5	548.6	39.6
		1/11/18	7.26	19.3	552.3	36.1
		7/17/18	7.28	19.4	572.5	32.6
		1/15/19	7.26	19.2	578.3	26.0
		7/24/19	7.19	19.2	598.4	24.6
		1/14/20	7.53	18.7	578.3	24.8
		8/11/20	7.25	19.9	600.6	23.2
		1/12/21	7.21	19.7	591.2	23.6
		7/21/21	7.15	19.3	599.7	26.4
COB MW-3	906823	2/28/08	7.39	21.0	416	57.8
		3/27/08	ND	ND	ND	57.7
		4/30/08	ND	ND	ND	37
		5/20/08	7.56	22.3	473	35.8
		7/24/08	ND	ND	ND	64.9
		7/30/08	7.64	22.3	541	67.3
		10/9/08	ND	ND	ND	52.5
		10/23/08	7.43	20.8	507	76.6
		2/12/09	7.35	21.1	432	112
		4/23/09	7.35	22.6	407	43.7
		7/22/09	7.38	21.5	460	52.3
		10/22/09	7.40	21.3	466	74.2
		10/22/09 DUP	7.40	21.3	466	73.9
		3/3/10	7.36	21.1	480	102
		4/26/10	7.35	22.0	497.9	77.6
		7/13/10	7.41	21.7	456.7	46.5
		7/14/11	7.19	21.8	440.0	40.1
		7/12/12	7.34	21.4	450	39.5
		2/5/13	7.60	20.4	476.4	65.1
		2/5/13 DUP	7.60	20.4	476.4	64.7
		7/25/13	7.42	21.4	485.0	66.6
		7/9/14	7.61	21.4	525.3	90.9
		7/27/15	7.56	21.6	560.3	105
		7/20/16	7.48	20.4	507.4	72.7
		7/19/17	7.34	20.2	529.5	84.1
		7/17/18	7.37	20.0	528.5	92.7
		7/24/19	7.38	19.7	498.8	68.5
		8/11/20	7.48	20.4	485.8	59.0
		7/21/21	7.33	19.7	534.5	95.8

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COB WL	593116	2/22/08	6.99	20.6	919	90
		3/24/08	ND	ND	ND	98.2
		4/28/08	ND	ND	ND	98.7
		5/20/08	7.30	21.9	1053	98
		7/30/08	7.17	22.0	1098	97.1
		7/30/08	ND	ND	ND	100
		10/15/08	ND	ND	ND	107
		10/23/08	7.23	21.4	1075	104
		2/12/09	6.98	20.6	814	94
		4/23/09	7.29	22.2	923	98
		7/22/09	7.17	22.5	1037	97.3
		10/22/09	7.17	22.4	988	96.1
		3/3/10	7.48	21.1	1030	97.1
		4/26/10	7.36	21.9	1038	97.7
		4/26/10 DUP	7.36	21.9	1038	97.9
		7/13/10	7.18	22.3	1013	88.7
		7/14/11	6.91	21.6	1019	87.3
		7/12/12	7.07	23.2	1060	92.0
		2/5/13	7.91	21.5	1057	98.3
		7/25/13	7.23	22.7	1074	97.6
		7/9/14	7.42	21.8	1132	81.5
		2/4/15	6.90	23.3	1488	73.7
		7/27/15	7.25	22.9	1221	69.6
		1/11/16	7.25	20.4	1195	73.5
		7/20/16	7.12	22.5	1184	74.4
		1/25/17	7.07	21.5	1167	79.8
		7/14/17	7.07	21.9	1162	80.4
		1/11/18	7.07	21.7	1169	77.3
		7/9/18	7.21	21.8	1165	73.0
		7/9/18 DUP	7.21	21.8	1165	74.5
		1/7/19	6.97	21.5	1163	73.1
		1/7/19 DUP	6.97	21.5	1163	74.0
		7/15/19	7.10	22.2	1154	71.2
		1/7/20	7.21	20.5	1122	76.1
		8/4/20	7.06	23.4	1108	84.8
		1/6/21	7.09	22.8	1102	77.0
		7/12/21	7.13	22.7	1082	89.9
COLLINS	565260	2/12/08	6.88	21.6	1470	520
		5/29/08	7.01	22.0	1459	520
		7/31/08	6.86	21.6	1502	536
		10/20/08	8.44	24.7	1510	518
		2/11/09	6.68	21.4	1147	567
		4/21/09	6.92	22.5	1150	499
		7/22/09	7.00	22.4	1413	460
		10/20/09	6.60	21.9	1432	513
		2/2/10	6.98	21.2	1439	471
		4/23/10	6.99	20.6	1472	561
		7/20/10	6.69	25.0	1420	569
		7/17/13	6.97	21.6	1409	519

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COOPER	623564	2/14/08	7.02	20.8	371	33
		5/14/08	8.08	22.1	419	34.2
		7/31/08	7.81	28.4	455	33.7
		10/20/08	8.44	24.7	448	31.2
		2/11/09	7.32	19.2	333	34.3
		4/21/09	8.19	24.9	346	33.4
		7/20/09	8.45	29.8	430	32.3
		10/14/09	7.85	24.6	423	33.6
		2/1/10	7.83	13.6	433	32.4
		4/22/10	7.82	17.9	433	34.5
		7/19/10	7.98	29.3	420	35.0
		10/18/10	7.12	73.1	450	33.1
		1/19/11	8.83	18.4	410	32.1
		4/11/11	7.65	21.0	442.6	34.3
		7/11/11	7.45	24.2	426.5	32.1
		11/22/11	7.86	20.6	426.1	33.7
		2/1/12	7.97	21.8	429.2	34.1
		4/10/12	7.41	22.4	426.8	32.5
		7/18/12	7.45	22.9	430	33.4
		10/9/12	7.70	22.1	432.8	34.3
		1/11/13	7.76	21.5	434.1	32.7
		4/10/13	7.72	21.1	427.5	31
		7/11/13	7.65	23.2	432.5	31.9
		10/7/13	7.68	22.7	430.5	31.4
		1/16/14	7.65	21.6	431.7	30.8
		4/10/14	7.66	22.3	433.1	31.5
		7/10/14	7.68	22.4	428.8	32.2
		10/8/14	7.37	23.5	408	31.1
		1/27/15	7.67	20.5	411	29.8
		8/3/15	7.67	22.7	421.3	27.1
		3/31/16	7.52	22.4	410	28.8
		7/25/16	7.62	22.4	420.2	27.3
		1/25/17	7.56	20.8	412.8	26.2
		7/17/17	7.48	21.6	417.1	35.6
		1/16/18	7.45	20.8	402.8	26.1
		7/16/18	7.45	21.8	415.8	25.5
		1/16/19	7.45	20.5	412.0	23.7
		7/8/19	7.50	22.3	417.1	23.4
		1/21/20	7.08	21.2	418.9	20.9
		1/21/20 DUP	7.08	21.2	418.9	21.2
COOPER 988	232988	7/16/21	7.97	24.1	414.0	18.5
		7/16/21 DUP	7.97	24.1	414.0	18.5
COOPER C	637069	3/20/08	6.93	21.3	2081	880
		5/5/08	6.78	22.4	2139	990
		7/15/08	6.86	22.3	2162	1040
		7/15/08 DUP	6.86	22.3	2162	960
		10/16/08	6.80	21.4	2078	1020
		1/27/09	6.92	20.5	1489	950
		4/14/09	6.85	21.6	1833	930
		7/14/09	6.75	22.1	1972	910
		10/12/09	6.70	21.8	1858	830
		1/27/10	7.27	19.6	1930	620
		4/22/10	6.76	19.5	1921	884
		7/21/10	6.84	22.9	1761	921
		10/20/10	7.16	20.9	1980	829
		1/17/11	6.95	20.5	1880	756
		4/11/11	6.82	21.0	1942	834
		8/26/11	6.84	21.8	1800	847
		2/1/12	7.13	20.5	2024	867
		4/25/12	6.83	21.5	1960	817
		7/11/12	6.48	22.8	2030	834
		10/10/12	6.98	21.2	1985	863
		2/27/13	6.58	20.9	1805	821
		5/8/13	6.41	20.7	1744	798
		8/13/13	6.69	21.2	1739	756
		11/1/13	6.61	21.2	1624	738
		2/10/14	6.69	21.6	1616	715
		5/7/14	6.48	22.5	1612	686
		7/21/14	6.63	23.1	1548	671
		11/13/14	6.87	22.4	1520	638
		9/10/15	6.84	22.8	1997	641
		8/18/16	6.92	25.2	1468	647
		7/13/17	6.99	23.0	1461	639
		7/25/18	6.95	22.2	1545	661
		8/19/19	7.01	21.3	1568	623
		8/17/20	6.97	21.9	1546	599
		7/27/21	6.88	22.5	1523	657

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
DODSON	644927	2/20/08	7.61	17.3	857	54
		5/12/08	7.11	21.1	1118	34.2
		7/24/08	7.25	21.6	1233	49.3
		10/13/08	7.15	20.5	1095	56.9
		1/22/09	7.20	20.4	892	51.8
		4/9/09	7.09	21.4	1103	50.1
		7/8/09	7.18	21.1	1153	55.9
		10/6/09	7.07	21.1	1140	49.3
		1/21/10	7.15	18.9	1227	44.6
		4/19/10	7.46	19.9	1261	48.8
		4/19/10 DUP	7.46	19.9	1261	48.6
		7/20/10	7.16	22.7	1260	47.5
		10/18/10	6.43	21.2	1260	49.3
		1/19/11	7.88	19.5	1120	57.9
		4/5/11	7.03	20.9	1300	49.0
		7/12/11	6.86	23.7	1352	52.9
		10/10/11	6.79	20.9	1280	50.9
		10/10/11 DUP	6.79	20.9	1280	49.6
		1/31/12	7.17	20.3	1454	50.4
		4/12/12	7.06	20.6	1492	45.4
		7/11/12	7.10	21.5	1790	54.0
		10/4/12	7.27	20.6	1626	48.7
		1/18/13	7.27	20.2	1743	51.8
		1/18/13 DUP	7.27	20.2	1743	51.6
		4/9/13	7.33	19.6	1886	74.4
		7/9/13	7.39	21.0	1825	53.6
		10/9/13	7.24	20.2	1612	63.3
		1/9/14	7.31	19.7	1586	61.4
		4/15/14	7.24	20.7	1636	58.5
		7/14/14	7.27	21.9	1651	54.4
		10/16/14	7.12	21.3	1706	53.2
		1/26/15	7.46	20.2	1650	59.5
		1/26/15 DUP	7.46	20.2	1650	59.9
		7/23/15	7.34	21.1	1716	60.8
		1/12/16	7.41	18.6	1749	49.2
		7/18/16	7.28	20.7	2233	49.1
		1/26/17	7.06	19.8	2049	45.9
		7/17/17	7.07	19.9	1920	46.1
		1/17/18	7.01	19.6	1922	45.4
		7/30/18	7.05	19.4	2408	39.1
		1/15/19	6.49	19.5	2322	38.9
		7/9/19	6.94	20.8	2362	35.3
		1/15/20	7.27	19.1	2275	42.3
		8/13/20	6.87	20.6	2215	45.2
		1/11/21	7.07	20.2	2153	48.7
		7/21/21	7.07	20.7	2101	48.4
DURAZO	NR	2/10/09	7.22	18.8	848	386
		4/20/09	7.37	22.7	901	367
		7/15/09	7.57	22.8	1102	332
		10/14/09	7.17	21.9	1048	377
		2/1/10	7.30	21.1	1105	344
		4/26/10	7.22	23.1	1099	388
		7/20/10	7.28	23.0	1070	405
		10/19/10	7.28	21.9	1112	398
		1/19/11	7.94	21.6	1050	360
		4/4/11	7.20	21.9	1119	383
		7/14/11	7.01	23.6	1101	409
		10/12/11	7.23	24.9	1000	396
		2/7/12	7.26	25.3	1152	404
		4/12/12	7.41	21.8	1101	407

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
EAST	599796	2/8/08	7.45	19.9	423	10.6
		5/14/08	7.31	20.9	595	14.8
		7/23/08	7.34	20.8	605	11.8
		10/14/08	7.33	20.3	531	8.9
		1/20/09	7.33	20.0	482	12.5
		4/8/09	7.32	20.6	555	15.9
		7/13/09	7.33	21.2	613	13.8
		10/8/09	7.29	20.8	593	13.4
		1/25/10	7.08	19.0	585	10.7
		4/21/10	7.42	20.5	616	14.4
		4/21/10 DUP	7.42	20.5	616	13.9
		7/14/10	7.45	22.2	577.1	12.1
		10/20/10	7.64	21.2	650	12.1
		1/18/11	7.44	21.0	615.9	13.1
		4/5/11	7.19	20.8	612.5	13.8
		7/12/11	7.23	21.7	595.1	12.7
		10/12/11	7.31	21.4	599.7	15.1
		10/12/11 DUP	7.31	21.4	599.7	15.1
		1/31/12	7.24	20.0	610	12.8
		4/11/12	7.53	20.6	609.3	14.6
		7/9/12	7.20	21.1	580	14.2
		10/4/12	7.49	20.4	623.8	15.0
		1/17/13	7.46	20.0	613.0	13.1
		4/9/13	7.54	19.6	597.7	12.2
		7/9/13	7.46	21.2	603.6	12.1
		10/15/13	7.51	20.2	622.6	17.2
		1/14/14	7.54	20.2	632.2	15.5
		1/14/14 DUP	7.54	20.2	632.2	15.5
		4/8/14	7.44	20.5	634.7	15.3
		7/8/14	7.43	20.7	618.8	13.1
		10/22/14	7.23	22.8	601.0	20.7
		7/24/15	7.5	21.0	626.5	13.1
		7/12/16	7.30	21.3	615.9	14.7
		7/27/17	7.22	19.8	620.9	14.2
		7/30/18	7.26	19.8	605.9	12.4
		7/17/19	7.25	19.6	603.8	11.8
		8/13/20	7.17	20.3	612.3	12.2
		7/23/21	7.22	20.6	603.0	12.7
ECHAVE	219449	2/1/12	7.39	20.7	390.0	26.7
		4/23/12	7.50	22.5	440.0	26.4
		7/17/12	7.44	22.2	430	26.1
		10/9/12	7.69	21.9	404.7	26.1
		10/9/12 DUP	7.69	21.9	404.7	26.0
		1/18/13	7.61	21.7	408.5	25.4
		5/14/13	7.74	22.2	400.2	25.2
		7/17/13	7.81	22.1	406.4	24.3
		10/8/13	7.66	21.4	404.3	24.5
		1/13/14	7.68	21.0	412.4	25.7
		4/10/14	7.67	21.4	409.3	26.4
		7/17/14	7.68	21.6	405.0	26.7
		10/22/14	7.43	21.4	406.0	25.9
		8/3/15	7.88	28.7	406.8	24.6
		7/22/16	7.86	27.5	391.5	24.7
		7/28/17	7.59	25.1	403.2	25.7
		7/17/18	7.68	24.3	397.5	24.1
		7/23/19	7.54	26.3	398.3	23.0
		8/10/20	7.74	30.4	397.0	22.2
		7/21/21	7.70	26.1	390.3	22.7

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
EPPELE 641	805641	3/11/08	7.98	21.4	646	21.7
		5/12/08	7.21	21.7	667	24.7
		7/21/08	7.49	23.9	605	19
		10/14/08	7.56	20.4	642	21.8
		1/21/09	7.60	21.1	500	22.7
		4/8/09	7.56	22.4	538	19.7
		7/9/09	7.43	24.3	550	17.5
		7/20/10	7.58	23.3	529.2	21.1
		10/20/10	7.66	21.0	572.1	17.2
		1/17/11	7.43	21.0	576.4	17.3
		4/5/11	7.43	21.5	569.2	16.7
		7/11/11	7.27	23.5	563.1	18.6
		7/11/11 DUP	7.27	23.5	563.1	18.3
		10/12/11	7.38	20.9	500.0	19.6
		1/31/12	7.68	19.9	560.8	18.2
		4/11/12	7.74	20.6	563.8	19.5
		4/11/12 DUP	7.74	20.6	563.8	19.6
		7/6/12	7.60	21.7	560	18.8
		10/3/12	7.84	20.7	558.8	19.5
		1/17/13	7.76	19.1	559.6	18.8
		4/8/13	7.71	20.4	564.1	17.5
		4/8/13 DUP	7.71	20.4	564.1	17.4
		7/9/13	7.66	21.9	570.1	17.5
		10/15/13	7.86	21.1	682.5	31.9
		1/14/14	7.97	19.1	602.8	29.0
		4/8/14	7.60	19.4	600.2	21.5
		7/8/14	7.65	21.0	596.9	21.6
		10/21/14	7.22	22.2	659	32.2
		7/24/15	7.60	21.2	638.1	22.6
		7/12/16	7.84	24.6	576.6	18.9
		7/12/16 DUP	7.84	24.6	576.6	18.9
		7/27/17	7.70	21.4	563.1	18.8
		7/31/18	7.78	21.6	558.9	17.8
FLEMING	218386	7/15/10	6.98	24.2	1390	573
FRANCO 101	500101	2/6/08	7.47	19.6	1301	670
		5/5/08	6.93	23.1	1557	680
		7/14/08	7.00	22.7	1586	680
		10/15/08	7.20	20.5	1560	680
		1/22/09	7.19	20.1	1178	740
		4/14/09	7.24	23.1	1416	690
		7/13/09	7.30	27.3	1532	670
		10/12/09	7.16	24.2	1493	650
		1/26/10	6.91	18.5	1529	640
		4/23/10	7.43	15.8	1559	699
		7/13/10	7.48	28.6	901.6	188
FRANCO 383	221383	9/13/12	7.66	25.0	1005	318
		10/5/12	7.63	24.4	1002	324
		11/13/12	7.67	19.8	988.2	349
		12/3/12	7.54	19.4	1001	332
		1/15/13	7.52	13.5	1010	333
		2/6/13	7.55	18.9	1004	353
		3/7/13	7.4	20.5	979.9	338
		4/10/13	7.7	20.4	1000	335
		7/10/13	7.69	25.7	1018	335
		10/16/13	7.63	21.9	1018	350
		1/14/14	7.68	20.1	1039	345
		4/8/14	7.68	24.3	1044	351
		4/8/14 DUP	7.68	24.3	1044	330
		7/14/14	7.63	26.5	1030	349
		10/8/14	7.47	23.5	954	335
		7/27/15	7.68	27.3	1047	322
		7/18/16	7.63	26.0	1040	339
		7/20/17	7.36	24.9	1056	337
		7/27/18	7.42	25.8	1063	371
		7/24/19	7.42	24.9	1085	349
		8/12/20	7.40	26.5	1105	367
		7/22/21	7.36	26.3	1101	392

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
FULTZ	212447	2/27/08	6.76	21.1	1827	152
		4/21/08[1]	6.74	22.0	1739	137
		5/14/08[1]	6.88	22.3	1532	131
		6/23/08[1]	6.74	22.0	1788	111
		7/29/08[1]	6.74	22.2	1989	152
		8/28/08[1]	M	21.6	1889	137
		9/23/08[1]	6.82	21.9	1821	137
		10/22/08	6.80	21.4	1940	145
		1/21/09	6.74	21.2	1481	82
		4/9/09	6.78	21.5	1695	138
		7/13/09	7.04	23.4	1452	81
		10/8/09	7.00	21.6	1262	72
		10/8/09 DUP	7.00	21.6	1262	71.8
		1/25/10	7.11	21.8	1282	66.7
		4/20/10	7.32	21.2	1202	68.3
		7/14/10	7.75	22.2	1132	57.0
		10/20/10	7.27	20.5	1091	54.7
		1/18/11	7.23	20.4	1136	56.9
		4/5/11	7.08	22.1	1082	49.5
		4/5/11 DUP	7.08	22.1	1082	51.7
		8/25/11	6.45	23.3	940	50.6
		10/12/11	7.22	21.7	870	48.5
GALLANT	502527	2/11/08	7.46	20.2	604	17.9
		7/23/08	7.26	21.2	925	20.9
GARNER 635	587635	2/4/08	7.61	22.7	479	37.8
		5/5/08	7.26	24.9	468	35.8
		7/15/08	7.63	25.6	480	37.4
		10/15/08	7.65	24.1	472	36
		1/28/09	7.69	23.4	368	37.4
		4/15/09	7.83	24.1	412	36.9
		7/16/09	7.56	25.1	445	35.7
		10/14/09	7.58	25.2	446	36.1
		2/2/10	7.79	22.8	465	35.1
		4/22/10	7.84	23.7	464.1	36.9
		7/20/10	7.57	25.3	458.2	38.8
		10/19/10	8.23	25.4	510	37.9
		1/19/11	7.82	24.1	463.4	35.7
		1/19/11 DUP	7.82	24.1	463.4	35.7
		4/6/11	7.76	23.4	467.4	35.8
		7/15/11	7.19	25.0	457.40	37.7
		10/11/11	7.57	24.2	400.0	38
		2/2/12	7.38	22.7	469.5	39.2
		4/13/12	7.62	24.0	460.0	33.5
		7/11/12	7.52	24.9	520	37.7
		7/11/12 DUP	7.52	24.9	520	37.2
		10/5/12	8.09	23.1	472.9	39.1
		1/11/13	7.83	23.7	470.8	38.7
		4/15/13	7.79	23.4	471.5	40
		7/10/13	7.9	25.0	469.5	36.7
		10/11/13	7.78	24.0	476.7	38.8
		1/17/14	7.81	23.2	473.6	41
		4/15/14	7.74	23.7	470.7	40.4
		7/26/17	7.46	23.4	474.1	40.6
		7/24/18	7.48	23.9	468.1	41.7
		7/15/19	7.49	23.4	473.6	41.2
		8/6/20	7.51	24.2	473.6	36.3
		7/21/21	7.52	24.1	471.9	38.0
GGOOSE 547	628547	5/21/08	7.08	22.7	856	199
		8/15/08	7.02	24.8	915	178
		10/29/08	7.27	22.6	897	216
		2/24/09	7.06	23.8	851	186
		5/14/09	7.15	23.9	743	174
		8/19/09	7.20	23.8	887	175
		11/11/09	7.15	23.1	897	188
GL-03	539782	3/4/08	7.43	25.7	417	20.3
		5/22/08	7.06	25.3	647	43.3
		8/4/08	7.10	26.8	673	36.1
		11/12/08	7.21	25.2	478	34.9
		2/26/09	7.05	26.5	603	54.8
		5/5/09	6.91	28.1	682	43.9
		8/1/09	7.12	27.4	768	43.1
		11/10/09	6.96	27.0	692	49
		3/2/10	7.36	24.9	693	43.4
		3/2/10 DUP	7.36	24.9	693	45.1
		4/9/10	6.17	25.6	556	48.1
		7/7/10	6.48	26.3	546	44.4
		2/1/12	6.57	24.1	559	42.0
HARDT	NR	2/5/13	7.15	17.5	670.6	17.7

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
HOBAN	805290	2/27/08	6.93	22.1	1359	510
		5/7/08	6.88	22.3	1532	670
		7/14/08	6.88	23.1	1719	690
		10/16/08	6.98	22.4	1624	692
		1/28/09	6.82	21.3	1220	580
		4/15/09	7.07	21.7	1423	700
		7/14/09	6.78	22.6	1551	670
		10/15/09	6.75	22.7	1487	670
		10/15/09 DUP	6.75	22.7	1487	780
		3/2/10	7.12	19.8	1575	580
		8/31/11	6.64	22.3	1772	893
		12/14/11	6.68	20.2	1870	944
		2/1/12	6.74	20.9	1900	993
		4/19/12	6.81	21.5	1805	868
		7/11/12	6.86	21.4	1906	1110
		10/17/12	6.74	22.0	1846	1040
		2/15/13	6.64	20.7	1934	954
		5/8/13	6.6	21.4	1903	1060
		8/13/13	6.85	21.6	1925	1030
		11/1/13	6.74	21.0	1920	1070
		2/10/14	6.64	21.0	1950	991
		5/7/14	6.69	21.1	1958	1030
		7/21/14	6.69	21.6	1903	1030
		11/13/14	6.88	21.7	1965	1020
		9/10/15	6.82	22.1	1922	1030
		8/18/16	6.77	22.0	1922	1050
		7/13/17	6.77	21.7	1924	1270
		7/13/17 DUP	6.77	21.7	1924	1050
		7/25/18	7.01	22.2	1907	998
		8/7/19	6.90	22.2	1798	923
		9/8/20	7.15	24.4	1487	637
		9/20/21	6.91	21.7	1182	477
HOWARD 312	221312	8/14/12	8.35	26.3	629.3	69.2
		10/16/12	8.18	26.6	648.3	68.1
		2/6/13	8.18	24.1	650.3	71.9
		4/9/13	8.2	24.3	621	67.5
		7/12/13	8.25	26.8	624.9	67.9
		10/16/13	8.12	25.6	623.7	70.2
		1/8/14	8.22	24.8	620.1	70.8
		4/10/14	8.14	26	621.7	66.1
		4/10/14 DUP	8.14	26	621.7	68.2
		7/14/14	8.16	26.6	618.3	69.1
		10/10/14	7.99	26.4	621.0	66.8
		7/31/15	8.17	27.4	618.8	67.5
		7/27/16	8.12	26.3	612.6	67.9
		7/21/17	8.00	26.0	616.4	65.8
		7/23/18	8.05	26.1	614.7	70.7
		7/9/19	7.96	25.9	607.8	65.6
		7/21/20	8.07	26.7	611.7	75.7
		7/21/20 DUP	8.07	26.7	611.7	73.1
		7/28/21	7.97	25.9	609.2	63.1
HOWARD NR	NR	3/4/08	7.06	20.4	1280	571
		5/8/08	6.95	21.0	1494	673
		7/14/08	7.00	21.1	1566	610
		10/15/08	7.00	20.6	1598	683
		1/28/09	6.82	21.0	1203	640
		1/28/09 DUP	6.82	21.0	1203	640
		4/15/09	7.02	21.5	1397	620
		7/15/09	7.16	21.5	1539	640
		10/12/09	6.89	21.4	1414	600
		1/27/10	7.35	20.0	1714	440
		1/27/10 DUP	7.35	20.0	1714	520
		4/21/10	7.16	20.8	1490	710
		7/19/10	6.94	24.6	1350	548
		10/18/10	6.47	21.4	1420	568
		1/17/11	7.12	19.8	1370	520
		4/11/11	7.20	20.6	1489	616
		8/26/11	7.11	23.2	1160	498
		10/11/11	7.1	21.0	1220	545
		10/11/11 DUP	7.1	21.0	1220	538
		2/1/12	7.29	20.6	1367	630
		4/13/12	6.99	21.2	1508	632
		9/13/12	7.12	21.9	1576	699
		10/16/12	7.06	21.1	1417	576
		2/6/13	7.06	20.3	1499	679
		4/9/13	7.38	19.4	1319	521
		7/12/13	7.40	21.6	1430	590
		10/16/13	7.15	20.3	1319	522
		1/8/14	7.24	20.3	1267	462
		4/10/14	7.23	20.6	1262	471
		7/14/14	7.18	21.1	1300	496
		7/14/14 DUP	7.18	21.1	1300	495
		10/10/14	6.93	23.2	1339	413
		7/31/15	7.16	21.9	1316	484
		7/21/17	6.98	20.1	1278	447
		7/9/19	6.90	20.1	1304	480
		7/28/21	6.98	19.9	1238	496

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
KEEFER	209744	2/6/08	7.70	19.0	378	6.8
		5/6/08	7.19	20.3	512	9
		7/16/08	7.21	21.4	539	8
		10/28/08	7.32	20.1	534	21.2
		1/28/09	7.42	19.5	356	6.1
		4/16/09	7.29	20.0	452	7.7
		7/14/09	7.35	22.1	533	7
		10/13/09	7.24	20.7	516	8.7
		1/26/10	7.15	18.8	483	7.3
		4/20/10	7.44	20.5	540.9	8.77
		7/15/10	7.50	22.2	535.8	8.84
		10/19/10	6.72	20.2	470	7.89
		1/18/11	7.45	20.6	450	7.24
		4/6/11	7.48	19.1	546.2	8.04
		7/18/11	7.19	23.2	492.3	7.79
		10/11/11	7.39	20.7	486.9	7.98
		2/6/12	7.36	20.3	482.0	6.84
		4/23/12	7.23	21.6	500	7.14
		7/17/12	7.40	21.0	500	7.29
		10/9/12	7.58	20.1	506.6	8.47
		1/10/13	7.55	19.3	466.3	6.37
		4/18/13	7.58	20	475.9	7.3
		7/11/13	7.67	20.8	485.1	7.23
		7/11/13 DUP	7.67	20.8	485.1	7.24
		10/7/13	7.53	20.6	458.9	6.39
		1/7/14	7.61	19.7	464.8	6.54
		4/9/14	7.59	20.2	473.3	6.61
		7/10/14	7.49	21.6	460.5	6.66
		10/8/14	7.32	22.3	429	6.35
		7/21/15	7.62	22.1	462.2	6.09
		7/25/16	7.42	22.2	477.9	6.81
		7/25/17	7.31	19.4	499.5	7.23
		2/23/18	7.31	19.5	472.7	6.60
		7/9/18	7.35	19.9	494.4	6.25
		1/11/19	7.26	18.4	466.2	6.59
		7/10/19	7.23	19.4	495.1	7.03
		1/17/20	7.56	18.0	486.5	7.07
		7/22/20	7.35	20.2	496.3	7.19
		1/12/21	7.30	20.1	495.8	7.04
		7/13/21	7.30	20.4	505.3	9.24
MARCELL	NR	8/26/11	7.12	25.1	1390	669
		9/26/11	6.63	22.1	1502	638
		11/22/11	7.29	21.0	1536	687
		2/1/12	7.42	20.8	1557	705
		4/13/12	7.15	21.8	1560	668
		7/13/12	6.86	22.3	1730	650
		10/17/12	7.18	21.3	1546	660
		10/17/12 DUP	7.18	21.3	1546	657
		2/6/13	7.25	19.8	1553	714
		2/6/13 DUP	7.25	19.8	1553	714
		4/10/13	7.07	19.9	1578	695
		7/15/13	7.09	21.4	1617	724
MCCONNELL 265	539265	2/20/08	7.21	21.1	1435	720
		5/6/08	6.77	21.6	1668	737
		7/15/08	6.91	22.3	1775	700
		10/15/08	6.82	21.3	1686	703
		1/28/09	6.85	21	1274	660
		4/15/09	7.04	21.3	1472	657
		7/15/09	7.01	22.2	1607	662
		10/12/09	6.77	21.7	1594	666
		1/26/10	6.71	21.5	1641	685
		4/22/10	6.95	20.1	1691	811
		7/21/10	6.86	23.5	1560	805
		10/18/10	6.97	22.0	1704	775
		1/19/11	7.38	20.6	1610	711
		4/8/11	7.04	19.8	1775	810
		7/12/11	6.60	23.7	1702	790
		10/11/11	7.18	21.8	1590	845
		2/7/12	7.14	20.6	1842	847
		4/11/12	6.82	21.4	1781	833
		7/6/12	6.88	22.4	1827	851
		10/8/12	7.07	20.9	1862	934
		1/10/13	6.89	20.9	1854	902
		1/10/13 DUP	6.89	20.9	1854	889
		4/18/13	7.11	20.4	1889	884
		7/10/13	7.14	22.1	1897	898
		10/14/13	7.00	21.0	1911	908
		1/8/14	7.23	20.9	1942	985
		4/14/14	6.99	20.7	1913	963
		7/14/14	6.95	21.8	1941	975
		10/7/14	6.84	22.2	1976	968
		7/31/15	7.04	21.9	1970	949
		7/20/17	6.73	20.6	1964	905

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
MCCONNELL 459	221459	7/27/12	8.25	26.5	510.0	41
		10/8/12	8.12	25.3	517.3	43.4
		1/15/13	8.06	24.5	512.6	37.4
		4/10/13	8.14	23.5	487.0	35.5
		7/10/13	8.10	25.5	480.7	34.5
		10/14/13	8.04	24.9	486.7	34.6
		1/8/14	8.20	23.7	489.4	37.1
		4/14/14	8.08	24.6	474.3	35.9
		9/9/14	8.12	25.1	465.7	33.0
		10/7/14	7.94	25.7	478.0	34.1
		7/31/15	8.13	25.9	453.6	28.5
		7/26/16	8.08	25.6	455.3	30.4
		7/20/17	7.93	24.9	449.8	32.3
		7/17/18	7.93	24.8	446.7	28.6
		7/10/19	7.90	25.0	447.9	27.2
		8/10/20	8.01	25.5	450.9	28.6
		7/27/21	7.92	24.7	447.2	28.1
METZLER	35-71891	3/5/08	7.27	21.6	1055	317
		5/15/08	7.12	22.8	1051	329
		7/31/08	7.16	22.5	1078	317
		10/20/08	7.24	22.2	1080	305
		10/20/08 DUP	7.24	22.2	1080	326
		2/11/09	7.12	21.3	818	321
		4/20/09	7.22	23.2	845	313
		7/15/09	7.41	22.9	1031	293
		7/15/09 DUP	7.41	22.9	1031	309
		10/14/09	7.1	22.7	989	315
		2/1/10	7.22	21.7	1021	286
		5/18/10	7.56	21.0	1053	330
		7/16/10	7.20	24.1	1007	330
		10/19/10	7.15	22.6	1006	319
		1/19/11	7.55	21.1	930	298
		4/4/11	7.03	23.3	1018	323
		7/12/11	7.07	22.3	993.0	312
		10/12/11	7.27	22.1	910	301
		2/7/12	7.36	21.5	1019	326
		4/12/12	7.34	21.1	1009	320
MOORE	538847	2/20/08	7.69	22.2	362	7.1
		5/8/08	7.09	22.4	432	7.5
		7/16/08	7.34	23.0	482	9.8
		10/29/08	7.32	22.4	452	19.2
		1/29/09	7.11	21.7	328	6.6
		4/16/09	7.40	22.1	374	6.4
		7/15/09	7.44	23.3	439	5.8
		10/13/09	7.36	22.6	429	7.1
		1/26/10	7.54	19.6	423	6.3
		4/22/10	7.47	20.6	433	7.40
		7/15/10	7.44	24.1	431.3	7.54
		7/15/10 DUP	7.44	24.1	431.3	7.11
		10/19/10	6.79	22.1	430	7.14
		1/18/11	7.48	21.1	390	6.42
		4/6/11	7.39	21.4	426.3	6.70
		7/13/11	6.91	23.2	423.4	7.62
		10/11/11	7.31	22.5	419.0	7.31
		1/31/12	7.35	21.7	430	7.21
		4/23/12	7.34	22.8	470	6.99
		4/23/12 DUP	7.34	22.8	470	7.05
		7/17/12	7.36	22.9	430	7.01
		7/17/12 DUP	7.36	22.9	430	6.99
		10/8/12	7.64	21.4	433.2	7.51
		1/10/13	7.50	20.8	439.9	7.16
		4/19/13	7.68	21.6	434.7	7.25
		7/11/13	7.56	22.9	442.2	7.14
		10/7/13	7.59	21.5	431.8	6.99
		10/13/14	7.47	22.0	433	6.72
		8/3/15	7.61	22.9	446.7	7.12
		7/14/16	7.55	23.0	445.8	7.86
		7/25/17	7.28	21.1	455.5	7.98
		8/1/18	7.24	26.9	436.8	8.10
		7/9/19	6.97	22.7	443.9	6.26
		7/22/20	7.35	21.9	447.0	8.03
		7/28/21	7.31	21.1	445.6	8.51

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NESS	509127	7/24/08	7.35	26.5	563	50.2
		10/16/08	7.47	21.4	542	48.9
		1/26/09	7.39	17.2	422	52.3
		5/11/09	7.52	28.8	472	45.9
		8/11/09	7.56	28.7	525	39.8
		11/12/09	7.53	24.5	537	51.3
		2/2/10	7.67	19.7	535	48.7
		4/21/10	7.70	23.5	518.9	42.1
		7/19/10	7.58	28.9	524.7	48.1
		1/18/11	7.49	21.8	536.6	50.1
		7/12/11	7.48	26.3	520.0	43.5
		2/3/12	7.58	21.1	538.2	49.0
		7/10/12	7.20	26.8	380	40.1
		7/10/12 DUP	7.20	26.8	380	39.2
		1/9/13	7.57	19.1	549.6	53.9
		7/8/13	7.84	27.9	539.2	46.8
		1/6/14	7.61	20.3	542.4	53.4
		7/7/14	7.60	25.3	536.6	48.3
		7/20/15	7.75	27.4	560.8	54.3
		7/11/16	7.60	28.5	545.2	49.6
		7/27/17	7.39	26.4	545.8	55.2
		7/31/18	7.42	26.4	550.7	54.1
		7/11/19	7.03	27.1	517.3	30.5
		8/14/20	7.73	28.0	538.1	46.5
		7/19/21	7.82	26.8	583.1	47.9
NOTEMAN	212483	2/5/08	6.70	19.9	1317	310
		5/13/08	6.67	23.0	1445	272
		7/24/08	6.68	24.2	1539	274
		10/23/08	6.57	23.2	1643	356
		1/19/09	6.38	22.9	1098	322
		4/7/09	6.56	23.8	1375	303
		7/8/09	6.55	24.6	1405	260
		10/5/09	6.48	24.1	1442	281
		1/20/10	6.79	20.3	1450	289
		4/19/10	6.81	22.4	1446	307
		7/19/10	6.77	24.6	1438	309
		10/18/10	6.08	24.6	1430	280
		1/19/11	6.84	22.3	1446	266
		4/4/11	6.72	22.9	1446	276
		4/4/11 DUP	6.72	22.9	1446	279
		7/11/11	6.78	23.9	1406	272
		10/11/11	6.96	23.4	1250	286
		2/3/12	6.68	21.3	1370	301
		4/23/12	6.68	24.0	1580	291
		7/9/12	6.57	24.7	1360	265
		7/9/12 DUP	6.57	24.7	1360	265
		10/4/12	6.80	23.6	1412	287
		1/17/13	6.69	23.3	1417	288
		4/8/13	6.90	22.3	1409	280
		7/9/13	6.89	24.3	1400	278
		10/14/13	6.75	23.2	1528	355
		1/10/14	6.83	22.2	1440	311
		4/10/14	6.84	23.2	1426	301
		7/7/14	6.80	23.2	1423	289
		12/10/14	6.66	22.8	1528	366
		7/23/15	6.87	24.1	1424	287
		7/15/16	6.79	23.9	1412	257
		7/27/17	6.57	22.9	1383	265
		7/24/19	6.61	22.6	1359	235
		7/20/21	6.53	23.5	1328	211
NOTEMAN HOUSE	212483	2/3/12	7.06	13.5	1520	324
NSD-02	527587	2/5/08	ND	ND	ND	43
		7/7/08	8.02	21.0	609.00	44
NSD-03	527586	2/5/08	ND	ND	ND	70.7
		7/7/08	7.64	21.0	570.00	58.9

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-02	562944	10/27/08	7.47	22.2	438	5.1
		2/12/09	7.58	21.6	330	6.6
		4/23/09	7.39	23.8	373	6.4
		7/21/09	7.62	23.9	408	5
		10/21/09	7.32	22.6	436	6.8
		2/3/10	7.68	19.6	423	8.5
		4/21/10	7.57	22.1	413	7.26
		7/20/10	7.36	23.7	412.5	6.87
		10/19/10	7.42	22.5	416.2	7.39
		1/18/11	7.47	23.2	390	6.43
		4/6/11	7.27	22.9	413.5	6.4
		7/15/11	7.03	22.5	416.3	7.24
		10/13/11	7.45	21.9	370	7.31
		1/30/12	7.39	21.2	431.3	7.78
		4/25/12	7.42	22.4	370	8.42
		7/18/12	7.33	22.5	430	6.99
		10/10/12	7.58	21.7	423.9	7.46
		1/10/13	7.58	21.8	396.4	9.02
		4/17/13	7.64	21.2	426.2	7.52
		7/12/13	7.65	22.0	429.3	6.91
		10/10/13	7.49	21.2	433.4	7.05
		10/10/13 DUP	7.49	21.2	433.4	7.14
		1/13/14	7.6	21.2	426.7	7.03
		4/7/14	7.59	21.3	432.9	7.34
		7/10/14	7.57	22.0	431.6	7.65
		10/13/14	7.48	23.1	424	7.04
		2/12/15	7.42	21.0	436	7.11
		7/30/15	7.62	22.2	436.2	6.31
		1/12/16	7.81	20.2	421.5	6.17
		7/26/16	7.54	21.4	434.4	6.81
		1/26/17	7.41	21.0	421.2	6.81
		7/18/17	7.29	21.0	435.8	7.15
		1/16/18	7.39	20.8	427.3	6.76
		7/18/18	7.34	20.7	435.3	6.50
		1/7/19	7.39	20.6	430.6	7.07
		7/9/19	7.14	21.4	442.2	5.75
		1/16/20	7.55	20.5	430.6	7.83
		7/22/20	7.47	21.3	437.9	8.15
		1/12/21	7.42	21.3	422.1	8.55
		7/22/21	7.36	20.6	442.6	9.64
NWC-03	203321	3/4/08	ND	ND	ND	560
		6/9/08	ND	ND	ND	524
		10/27/08	7.07	21.9	1374	489
		2/12/09	7.06	20.2	1023	412
		4/23/09	6.98	21.9	1129	466
		4/23/09 DUP	6.98	21.9	1129	460
		7/21/09	7.21	22.9	1194	458
		10/21/09	6.94	21.8	1224	444
		2/3/10	7.24	20.7	1214	444
		4/21/10	7.22	21.6	1178	433
		7/20/10	7.04	22.8	1229	477
		10/19/10	7.22	21.3	1172	432
		1/18/11	7.09	22.8	1120	386
		4/6/11	7.19	21.7	1114	361
		7/15/11	6.91	21.8	1094	386
		10/13/11	7.23	21.6	960	353
		1/30/12	7.15	21.5	1061	379
		4/25/12	7.17	21.6	920	346
		4/25/12 DUP	7.17	21.6	920	347
		7/18/12	7.05	22.1	1080	354
		10/10/12	7.31	21.1	1029	354
		10/10/12 DUP	7.31	21.1	1029	353
		1/10/13	7.18	20.8	1051	370

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-04	551849	3/4/08	ND	ND	ND	240
		6/9/08	ND	ND	ND	231
		10/27/08	7.32	25.0	856	162
		1/22/09	7.23	22.9	688	184
		2/12/09	7.20	19.8	699	181
		2/12/09 DUP	7.20	19.8	699	198
		3/11/09	7.15	23.4	846	197
		4/23/09	7.21	24.1	797	188
		5/28/09	7.01	24.1	933	210
		6/24/09	6.93	25.6	792	169
		7/21/09	7.48	24.3	859	193
		8/19/09	7.12	24.5	906	183
		9/23/09	7.16	23.8	953	202
		10/21/09	7.18	24.3	875	191
		11/18/09	7.24	22.9	909	191
		12/16/09	7.28	22.3	926	193
		2/3/10	7.49	22.3	844	167
		3/8/10	7.33	22.5	880	182
		4/21/10	7.34	22.8	913	218
		5/18/10	7.68	25.8	901.3	210
		6/15/10	7.31	24.5	917.5	212
		7/20/10	7.28	28.3	873.2	188
		8/25/10	7.55	24.8	820.9	196
		9/29/10	7.38	24.5	920.2	205
		10/19/10	7.34	23.6	870.2	195
		11/4/10	7.53	23.9	853.2	197
		12/14/10	7.41	23.6	856.8	182
		1/18/11	7.31	24.1	860	194
		2/17/11	7.46	22.3	848.6	169
		3/17/11	7.44	24.1	888.1	182
		4/5/11	7.32	23.4	878.7	196
		5/11/11	7.32	23.1	868.1	175
		6/17/11	7.28	23.7	856.3	204
		7/15/11	7.06	23.5	875.1	202
		8/25/11	7.32	25.1	780	195
		9/26/11	6.56	26.2	875.4	198
		9/26/11 DUP	6.56	26.2	875.4	199
		10/13/11	7.46	23.3	770	198
		11/22/11	7.36	22.9	853.5	201
		12/8/11	7.33	22.3	872.2	207
		1/30/12	7.34	23.4	914.4	217
		2/17/12	7.45	22.9	898.1	203
		3/15/12	7.39	23.9	888.2	207
		4/25/12	7.16	23.4	870	204
		5/22/12	7.25	23.9	970	178
		5/22/12	7.25	23.9	970	178
		6/6/12	7.27	24.4	1040	195
		7/18/12	7.25	23.7	880	205
		8/28/12	7.49	24.2	893.3	208
		9/13/12	7.40	23.9	883.7	205
		10/10/12	7.48	23.2	883.6	207
		11/13/12	7.56	21.7	849.8	211
		12/3/12	7.40	23.0	898.6	208
		1/10/13	7.37	22.2	903.1	210
		2/7/13	7.54	23.0	917.5	228
		3/7/13	7.49	22.4	892.4	222
		4/17/13	7.43	22.6	903.8	223
		5/14/13	7.53	23.2	881.7	214
		6/5/13	7.29	33.9	862.7	201
		7/12/13	7.29	23.5	897.2	211
		7/12/13 DUP	7.29	23.5	897.2	200
		8/9/13	7.43	23.5	898.6	207
		9/5/13	7.56	23.8	893.6	214
		10/10/13	7.39	22.6	873.7	197
		11/6/13	7.58	21.8	852.3	202
		12/3/13	7.50	23.1	843.4	199
		1/13/14	7.12	21.9	885.6	197
		2/5/14	7.46	22.4	833.3	198
		3/5/14	7.59	22.8	813.3	168
		4/7/14	7.49	22.9	834.2	187
		5/13/14	7.56	23.4	819.8	186
		6/23/14	7.62	24.5	806.7	188
		7/10/14	7.57	23.8	826.2	187

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-04	551849	8/11/14	7.59	23.5	824.0	187
		9/9/14	7.50	24.0	789.5	163
		10/13/14	7.39	24.5	802	175
		11/14/14	7.46	22.9	835.4	183
		12/10/14	7.33	23.3	840.7	189
		2/12/15	7.81	20.3	856.4	177
		4/9/15	7.41	24.6	823.2	182
		7/30/15	7.60	24.5	935.6	195
		10/6/15	7.54	23.2	866.8	225
		1/12/16	7.57	22.7	811.2	188
		4/5/16	7.47	23.9	847.7	192
		7/26/16	7.45	23.8	907.3	187
		11/2/16	7.32	23.0	900.6	181
		1/26/17	7.41	23.1	851.9	195
		4/6/17	7.33	23.2	846.8	176
		7/18/17	7.23	23.9	844.7	201
		11/14/17	7.31	23.3	860.1	193
		1/16/18	7.30	23.4	809.6	181
		5/2/18	7.41	23.7	854.1	192
		7/18/18	7.32	23.2	863.5	195
		10/16/18	7.40	23.6	850.1	210
		10/16/18 DUP	7.40	23.6	850.1	210
		1/7/19	7.38	24.0	848.3	196
		5/14/19	7.39	23.9	845.5	190
		5/14/19 DUP	7.39	23.9	845.5	190
		7/9/19	7.06	24.9	857.2	195
		10/15/19	7.38	24.3	855.4	195
		1/16/20	7.59	23.3	863.1	199
		7/22/20	7.34	25.0	861.3	200
		11/23/20	7.49	24.1	913.5	182
		1/12/21	7.41	24.2	840.4	198
		4/1/21	7.38	23.6	839.3	194
		7/22/21	7.29	23.5	862.5	190
		12/14/21	7.34	23.6	864.3	195
NWC-06	575700	6/9/08	ND	ND	ND	7.2
		10/27/08	7.35	23.3	414	6.4
		2/12/09	7.54	21.8	306	8
		4/23/09	7.30	24.5	354	7.3
		7/21/09	7.63	23.5	388	6.4
		10/21/09	7.26	23.2	413	8
		2/3/10	7.61	20.5	404	7.5
		2/3/10 DUP	7.61	20.5	404	7.4
		4/21/10	7.54	22.4	387	8.49
		7/20/10	7.33	26.0	388.6	8.59
		10/19/10	7.49	22.7	394.5	8.32
		1/18/11	7.45	23.4	380	8.24
		4/6/11	7.42	23.1	388.3	7.76
		4/6/11 DUP	7.42	23.1	388.3	7.73
		7/15/11	7.09	22.9	394.3	8.36
		10/13/11	7.51	22.3	340	8.48
		1/30/12	7.47	22.1	402.7	8.44
		4/25/12	7.34	22.5	410	7.11
		7/18/12	7.39	22.8	380	8.60
		10/10/12	7.62	21.9	393.6	9.33
		1/10/13	7.47	21.3	429.2	7.55
		4/17/13	7.66	21.1	404.1	8.82
		7/12/13	7.59	22.4	404.1	8.40
		10/10/13	7.56	21.6	403.3	8.38
		1/13/14	7.64	21.3	401.8	8.78
		4/7/14	7.65	21.7	403.7	8.62
		7/10/14	7.68	22.4	405.9	8.97
		7/10/14 DUP	7.68	22.4	405.9	8.99
		10/13/14	7.59	23.4	393	8.51
		2/12/15	7.60	21.2	405	8.12
		2/12/15 DUP	7.60	21.2	405	8.09
		7/30/15	7.66	22.6	406.5	8.20
		1/12/16	7.74	20.7	397.5	8.50
		7/26/16	7.58	21.8	409.1	8.69
		1/26/17	7.42	21.3	394.0	8.64
		7/18/17	7.35	21.4	405.6	8.35
		1/16/18	7.45	21.1	400.4	8.85
		7/18/18	7.38	21.2	407.2	8.35
		1/7/19	7.42	21.0	405.1	8.54
		7/9/19	7.09	22.0	411.3	6.99
		1/16/20	7.51	20.8	403.5	8.74
		7/22/20	7.47	21.9	412.0	8.75
		1/12/21	7.40	21.7	374.9	8.83
		7/22/21	7.35	21.1	412.0	9.46
OLMOS	224745	1/13/16	7.61	20.4	421.0	8.04
		7/14/16	7.58	22.5	445.9	7.97
		7/25/17	7.29	20.6	434.7	8.25
		7/13/18	7.31	20.6	446.1	7.58
		7/13/18 DUP	7.31	20.6	446.1	7.46
		7/8/19	7.07	21.5	429.7	6.55
		7/8/19 DUP	7.07	21.5	429.7	7.78
		8/5/20	7.20	21.3	438.3	7.52
		7/29/21	7.35	20.4	428.1	7.93

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
OSBORN	643436	2/25/08	7.35	22.4	508	16.4
		5/13/08	7.22	22.2	576	17.2
		7/22/08	7.24	22.9	618	17.7
		7/22/08 DUP	7.24	22.9	618	17.5
		10/16/08	7.39	22.4	595	15.9
		1/20/09	7.33	22.4	469	16
		4/7/09	7.25	24.0	542	17
		8/18/09	7.16	24.6	643	17.4
		10/5/09	7.14	22.9	599	17.9
		1/21/10	7.47	19.5	591	15.6
		4/19/10	7.60	21.5	601.9	19.3
		7/12/10	7.69	24.2	594.0	18.4
		7/12/11	7.87	29.8	575.9	19.5
		2/3/12	8.15	15.3	390	19.2
		1/8/13	7.88	10.5	544.4	20.4
		7/8/13	7.56	39.2	510.3	19.2
		1/10/14	7.89	18.1	580.5	18.7
		7/7/14	7.84	29.2	496.3	18.0
		7/11/16	7.56	37.8	515.4	18.6
		7/31/17	7.74	25.6	548.4	19.3
		7/31/17 DUP	7.74	25.6	548.4	18.7
PALMER	578819	2/14/08	7.91	17.5	435	15.9
		5/13/08	7.92	22.9	508	16.6
		7/22/08	7.64	25.8	548	16.2
		10/16/08	7.61	17.0	527	15.9
		1/20/09	7.33	19.4	441	14.3
		4/8/09	7.65	19.1	475	15.4
		7/8/09	7.47	27.2	521	14.3
		10/5/09	7.81	22.2	538	16.2
		1/20/10	7.72	11.9	510	13.8
		4/22/10	7.97	13.6	520	16.7
		7/12/10	7.62	30.2	518.8	15.7
		10/18/10	8.13	22.1	511.9	16.5
		1/18/11	7.24	17.1	517.0	15.7
		4/5/11	8.04	19.0	499.2	15.8
		7/12/11	7.65	26.6	517.6	16.4
		10/11/11	7.85	22.0	510.4	17
		2/3/12	7.94	10.0	521.4	17.1
		4/11/12	7.52	18.7	519.8	17.3
		7/10/12	7.30	27.9	390	16.6
		10/3/12	8.09	25.7	526.7	17.6
		10/3/12 DUP	8.09	25.7	526.7	17.5
		1/9/13	7.9	17.5	532.8	16.8
		4/8/13	8.07	18.4	534.1	17
		7/17/13	7.74	22.3	531.0	17.2
		10/14/13	8.03	20.1	533.1	16.9
		1/6/14	7.82	11.9	517.4	17.4
		4/7/14	7.96	18.3	534.8	17.3
		7/7/14	8.07	23.9	534.4	18.3
		10/23/14	7.86	19.6	536.0	17.5
		7/20/15	7.95	25.9	540.1	17.6
		7/31/18	7.65	29.6	534.8	17.1
		7/11/19	8.16	28.0	538.6	16.7
		8/14/20	7.75	26.5	534.8	16.3
		8/14/20 DUP	7.75	26.5	534.8	16.3
		7/20/21	8.41	27.2	488.7	16.8

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
PANAGAKOS	35-76413	4/21/08	6.80	20.5	1228	410
		7/21/08	6.95	21.9	1390	444
		10/13/08	6.86	21.2	1386	480
		10/13/08 DUP	6.86	21.2	1386	500
		1/22/09	6.92	19.7	997	397
		4/9/09	6.81	21.7	1228	431
		4/9/09 DUP	6.81	21.7	1228	426
		7/9/09	6.89	22.3	1469	490
		10/6/09	6.83	21.1	1328	472
		1/21/10	7.06	18.8	1291	318
		4/20/10	7.25	21.0	1528	608
		7/20/10	6.90	24.0	1560	706
		10/18/10	6.38	22.1	1530	568
		7/14/11	6.93	23.3	1070	223
		8/25/11	7.17	23.4	1170	222
		2/6/12	6.98	20.8	1017	166
		2/29/12	7.09	20.3	1080	362
		3/15/12	7.02	21.4	1138	282
		4/12/12	6.90	20.9	1265	346
		4/12/12 DUP	6.90	20.9	1265	352
		7/9/12	6.82	22.2	1140	292
		11/27/12	7.51	20.1	1164	274
		2/6/13	7.05	19.9	1054	212
		4/9/13	7.24	19.7	1105	232
		7/10/13	7.26	21.4	1218	329
		10/15/13	7.14	20.5	1109	240
		1/10/14	7.23	19.6	1079	227
		4/16/14	7.17	20.4	1103	228
		7/17/14	7.13	21.4	1357	467
		10/16/14	6.9	22.1	1104	193
		1/26/15	7.11	19.6	1349	428
		7/27/15	7.03	22.2	1445	469
		1/11/16	7.18	18.9	1402	443
		1/11/16 DUP	7.18	18.9	1402	452
		2/24/17	7.19	19.1	1270	218
		2/24/17 DUP	7.19	19.1	1270	217
		7/17/17	7.13	20.2	1219	232
		1/18/18	7.08	19.0	1151	223
		1/18/18 DUP	7.08	19.0	1151	226
		7/30/18	6.96	20.5	1389	384
		1/15/19	6.91	18.5	1464	444
		7/8/19	6.90	21.4	1480	467
		7/8/19 DUP	6.90	21.4	1480	476
		1/14/20	7.29	17.7	1450	457
		1/14/20 DUP	7.29	17.7	1450	461
		8/13/20	7.21	20.6	1254	231
		1/11/21	7.20	20.2	1189	227
		7/22/21	7.12	21.4	1126	185
PARRA	576415	2/11/08	7.08	21.8	1067	360
		5/15/08	7.10	21.8	1200	405
		7/31/08	7.00	22.4	1248	423
		7/31/08 DUP	7.00	22.4	1248	404
		10/20/08	7.07	22.9	1246	387
		2/13/09	7.24	22.1	965	405
		4/20/09	7.10	22.6	971	372
		7/20/09	7.17	23.9	1174	375
		10/20/09	6.80	22.5	1188	388
		2/1/10	7.07	21.5	1197	353
		4/22/10	6.91	20.3	1219	417
		7/14/10	7.13	22.2	1201	403
		7/14/10 DUP	7.13	22.2	1201	391
		10/20/10	7.51	21.4	1270	411
		1/19/11	7.49	20.8	1130	391
		4/4/11	6.90	22.6	1207	382
		7/12/11	6.76	23.7	1156	404
		10/12/11	7.44	22.3	1070	406
		2/7/12	7.64	21.4	1212	428
		4/13/12	7.49	21.1	1204	402
		4/13/12 DUP	7.49	21.1	1204	390
		7/18/12	7.03	22.6	1210	418
		7/18/12 DUP	7.03	22.6	1210	419
		10/9/12	7.30	21.3	1209	428
		1/11/13	7.64	20.3	1217	413
		4/11/13	7.29	21.2	1206	427
		7/17/13	7.21	21.9	1212	411
		10/18/13	7.18	21.3	1212	406
		1/8/14	7.21	20.8	1221	437
		4/15/14	7.18	21.5	1213	416
		7/21/14	7.30	22.4	1193	432
		10/6/14	7.12	21.5	1133	413
		8/3/15	7.24	22.3	1193	391
		7/22/16	7.17	22.6	1151	392
		7/25/17	6.98	20.9	1194	426
		7/10/19	6.83	21.6	1170	382
		7/22/21	7.00	21.2	1137	360

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
PIONKE 395	613395	2/6/08	7.53	19.9	910	394
		5/7/08	7.08	21.4	1100	391
		7/17/08	6.99	21.9	1209	420
		10/27/08	7.03	20.8	1175	460
		1/29/09	7.13	19.9	847	385
		4/14/09	7.58	20.7	1053	411
		7/13/09	7.35	21.5	1165	472
		10/7/09	7.43	21.1	1100	403
		3/8/10	7.72	18.6	1201	406
		4/26/10	7.22	21.9	1224	438
		7/15/10	7.32	22.3	1158	474
		10/18/10	7.33	21.3	1277	473
		10/18/10 DUP	7.33	21.3	1277	487
		1/19/11	7.32	19.9	1222	471
		4/8/11	7.13	19.2	1232	467
		7/12/11	7.30	23.8	1226	500
		10/11/11	6.98	20.8	1100	502
		2/1/12	7.25	17.5	1230	481
		2/1/12 DUP	7.25	17.5	1230	495
		4/12/12	7.17	22.1	1218	508
		7/11/12	6.59	22.9	1280	439
		10/17/12	7.16	22.3	1136	419
PIONKE 517	221517	9/18/12	7.91	23.4	395.8	14
		10/11/12	7.75	22.8	394.7	14.9
		1/9/13	7.79	22.6	389.9	14.3
		4/17/13	7.74	22.1	391.9	14.6
		7/16/13	7.84	22.9	391.5	13.9
		10/17/13	7.73	22.7	391.5	13.8
		2/5/14	7.75	21.5	394.2	14.9
		4/9/14	7.71	22.9	400.9	14.0
		7/11/14	7.76	23.7	388.9	14.6
		10/7/14	7.46	25.8	406	14.0
		7/22/15	7.79	23.3	392.1	13.9
		7/26/16	7.67	23.2	389.2	14.1
		7/18/17	7.44	22.5	388.7	13.2
		7/24/18	7.53	22.3	385.7	13.4
		7/11/19	7.19	23.0	393.7	13.4
		8/12/20	7.48	22.8	393.1	13.2
		7/23/21	7.46	22.0	388.9	14.7
POOL	509518	2/20/08	7.95	20.9	497	134
		5/19/08	7.40	22.2	585	122
		7/31/08	7.47	22.3	599	117
		10/21/08	7.51	21.4	598	120
		2/13/09	7.62	20.8	473	141
		4/21/09	7.73	22.6	470	124
		7/20/09	7.76	22.9	579	122
		10/20/09	7.22	21.2	577	122
		2/24/10	7.56	22.4	577	110
		4/22/10	7.75	20.2	606.5	130
		7/14/10	7.38	21.7	580.9	117
		10/20/10	7.79	21.3	620	115
		1/20/11	7.71	20.5	530	112
		1/20/11 DUP	7.71	20.5	530	114
		4/6/11	7.37	21.6	567.4	114
		8/1/18	7.47	24.2	580.9	113
		7/10/19	6.78	29.1	588.6	118
		8/10/20	7.40	25.6	581.5	108
		7/20/21	7.55	24.2	562.8	109
POWER	624535	2/12/08	7.11	18.9	428	15.5
		7/22/08	7.10	21.7	795	20.2
POWER 639	222639	1/16/14	7.38	20.9	1004	234
		2/5/14	7.35	20.8	1004	328
		3/5/14	7.39	21.3	991.4	187
		4/15/14	7.38	21.6	999.4	249
		5/13/14	7.40	21.4	990.9	206
		6/23/14	7.44	21.9	886.4	117
		7/17/14	7.40	22.1	861.3	168
		8/11/14	7.50	21.8	864.9	136
		9/9/14	7.49	21.7	850.4	105
		1/27/15	7.27	22.0	922	291
		3/10/15	7.35	21.9	1032	265
		4/28/15	7.43	20.6	1002	308
		5/14/15	7.32	21.3	991.4	269
		6/11/15	7.26	22.0	1019	308
		7/30/15	7.33	22.3	1014	287
		1/14/16	7.46	19.7	985.7	298
		7/27/16	7.27	22.2	992.0	301
		1/26/17	7.14	20.9	989.9	317
		7/12/17	7.16	20.8	1010	244
		1/10/18	7.25	20.7	856.9	191
		7/25/18	7.35	20.8	814.9	205
		1/14/19	7.20	20.6	828.4	174
		7/12/19	7.16	21.7	510.4	90.8
		1/15/20	7.47	20.5	748.9	180
		8/13/20	7.37	21.7	753.5	173
		1/13/21	7.29	21.4	836.8	218
		7/19/21	7.35	20.7	807.2	185

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
RAMIREZ	216425	2/4/08	7.47	21.7	408	7.6
		5/6/08	7.19	22.7	405	8.3
		7/17/08	7.32	24.5	439	8.8
		10/27/08	7.41	22.2	412	7.3
		1/29/09	7.24	22.2	301	8.3
		4/16/09	7.49	22.4	344	7.6
		7/10/09	7.52	23.9	411	6.4
		10/6/09	7.30	23.8	388	8.4
		1/25/10	7.48	22.4	390	7.8
		4/21/10	7.45	22.6	397	9.04
		7/21/10	7.38	25.1	420	8.98
		10/19/10	7.91	23.7	450	10.8
		1/18/11	7.52	23.1	380	8.18
		4/11/11	7.24	23.2	408.5	8.65
		7/18/11	7.27	25.4	402.6	8.44
		10/12/11	7.40	23.3	412.7	8.55
		1/30/12	7.38	22.3	412.2	8.80
		4/10/12	7.40	23.2	404.5	8.70
		7/6/12	7.32	24.2	415.7	8.97
		10/8/12	7.61	22.5	412.0	9.14
		10/8/12 DUP	7.61	22.5	412.0	9.07
		1/17/13	7.52	22.2	409.6	8.82
		4/19/13	7.6	22.1	413.9	8.63
		7/15/13	7.58	23.6	416.2	8.19
		10/7/13	7.68	22.6	412.7	8.37
		1/13/14	7.63	21.9	409.8	8.79
		4/14/14	7.55	22.2	417.5	8.67
		7/10/14	7.58	23.2	413.5	8.92
		10/17/14	7.36	23	422.0	8.67
		7/21/15	7.54	23.7	414.6	8.46
		7/14/16	7.55	23.6	420.5	8.57
		7/26/17	7.37	22.0	414.5	9.00
		7/25/18	7.35	22.1	420.2	8.35
		7/9/19	6.95	22.8	432.8	6.67
		8/6/20	7.31	22.6	423.1	7.96
		7/29/21	7.30	21.6	409.2	8.82
		7/29/21 DUP	7.30	21.6	409.2	8.68
RAY	803772	2/15/08	7.30	19.1	1540	159
		4/21/08[1]	6.92	21.3	1418	125
		5/13/08[1]	7.05	20.9	1418	123
		6/23/08[1]	6.87	21.1	1593	130
		7/29/08[1]	6.98	21.8	1411	120
		8/28/08[1]	M	21.1	1519	129
		9/23/08[1]	6.90	22.2	1519	125
		10/22/08	6.96	20.8	1604	145
		1/20/09	6.92	20.6	1355	88
		4/8/09	6.85	21.4	1759	178
		7/9/09	6.93	22.3	1434	126
		10/7/09	6.98	21.3	1288	127
		1/26/10	6.82	20.6	1352	125
		4/20/10	7.14	21.5	1318	134
		7/14/10	7.11	23.8	1313	137
		10/20/10	7.14	19.6	1368	127
		1/17/11	7.04	20.8	1451	132
		1/17/11 DUP	7.04	20.8	1451	125
		4/5/11	7.03	20.8	1387	132
		7/11/11	7.07	22.8	1345	126
		10/12/11	7.06	21.6	1250	130
		1/31/12	7.28	20.5	1360	131
		4/11/12	7.03	20.6	1359	131
		7/6/12	7.11	22.1	1430	129
		10/3/12	7.12	21.1	1464	130
		1/17/13	7.05	19.5	1527	126
		1/17/13 DUP	7.05	19.5	1527	140
		4/8/13	7.32	20	1476	131
		7/9/13	7.18	21.4	1451	128
		10/15/13	7.13	20.8	1487	135
		1/14/14	7.25	19.2	1433	133
		4/8/14	7.09	20.8	1502	146
		7/8/14	7.14	21.4	1409	147
		10/22/14	6.88	21.6	1422	147
		8/3/15	7.22	21.4	1360	133
		7/12/16	7.03	21.6	1419	133
		7/26/17	6.93	19.8	1288	142
		7/31/18	6.89	19.8	1493	138
		7/31/18 DUP	6.89	19.8	1493	139
		7/19/19	6.86	19.7	1465	132
		8/13/20	6.80	20.5	1362	136
		7/23/21	6.88	20.5	1701	209
		7/23/21 DUP	6.88	20.5	1701	209

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
ROGERS 596	573596	10/19/09	6.89	23.3	1360	590
		11/5/09	6.79	21.9	1418	540
		2/25/10	6.99	19.6	1603	520
		4/22/10	7.21	18.2	1641	710
		1/18/18	6.85	18.9	1431	655
		7/26/18	6.85	22.9	1644	735
		1/14/19	6.83	17.9	1651	757
		7/22/19	6.84	25.9	1714	835
		1/22/20	6.68	19.4	1621	831
		8/11/20	6.86	23.1	1518	666
		7/22/21	6.90	22.3	1439	651
ROGERS 803	641803	2/7/08	7.45	18.6	601	138
		4/21/08[1]	7.32	21.4	552	128
		5/8/08[1]	7.14	21.2	622	141
		6/23/08[1]	7.06	22.9	660	129
		7/29/08[1]	6.78	23.1	339	134
		8/28/08[1]	7.18	21.6	635	128
		9/23/08[1]	7.24	21.9	599	133
		10/22/08	7.36	21.3	650	144
		2/10/09	7.42	17.9	475	141
		4/29/09	7.52	21.9	506	211
		8/3/09	7.39	24.2	674	150
		7/16/10	7.46	23.9	643.4	169
		10/19/10	7.32	21.1	643.8	154
		10/19/10 DUP	7.32	21.1	643.8	154
		1/20/11	7.44	18.1	610	143
		4/8/11	7.30	20.2	658.2	160
		7/14/11	7.12	23.5	653.5	166
		10/12/11	7.41	21.8	665.3	175
		1/30/12	7.40	20.0	580	171
		4/23/12	7.32	23.9	720	166
		7/13/12	7.26	24.0	820	171
		7/13/12 DUP	7.26	24.0	820	166
		10/10/12	7.41	24.3	671.4	177
		1/15/13	7.37	16.9	681.1	174
		4/15/13	7.57	23.8	698	190
		7/15/13	7.39	23.6	697.8	184
		10/16/13	7.47	25.4	710.6	185
		1/9/14	7.46	21.4	701.8	190
		4/11/14	7.52	26.1	711.3	190
		7/18/14	7.48	24.9	709.2	192
		9/30/17	7.03	21.5	1396	572
ROGERS E	216018	2/4/08	7.40	21.0	435	4.6
		5/7/08	7.18	22.2	415	5.9
		7/17/08	7.28	23.0	446	7.1
		10/27/08	7.38	21.4	434	15.7
		2/10/09	7.51	20.7	322	5.4
		4/16/09	7.48	22.0	361	4.9
		7/13/09	7.34	22.6	420	3.8
		10/6/09	7.31	22.3	407	5.8
		1/25/10	7.52	20.6	414	5.1
		4/21/10	7.44	21.1	421	6.04
		7/21/10	7.37	23.8	430	6.47
		10/19/10	7.80	22.8	460	5.92
		1/18/11	7.39	21.5	390	5.50
		4/11/11	7.19	22.7	427.2	6.13
		7/18/11	7.12	24.3	418.5	6.00
		10/13/11	7.52	22.2	370	5.99
		1/30/12	7.38	20.8	427.2	6.22
		4/10/12	7.37	22.1	421.8	6.31
		7/17/12	7.32	22.7	420	5.85
		10/17/12	7.55	21.7	429.0	6.04
		1/17/13	7.46	21.5	431.5	6.01
		4/18/13	7.63	21.3	433.5	6.26
		7/17/13	7.59	22.1	427.7	6.05
		7/17/13 DUP	7.59	22.1	427.7	6.28
		10/10/13	7.51	21.9	436.9	5.8
		1/7/14	7.49	21.0	434.0	6.24
		4/14/14	7.59	21.4	431.2	6.11
		7/10/14	7.54	22.4	428.5	6.41
		10/17/14	7.31	22.6	452	5.81
		7/30/15	7.57	22.9	430.3	5.90
		7/14/16	7.58	22.7	430.2	6.71
		7/26/17	7.31	21.3	429.3	6.86
		2/23/18	7.32	21.0	423.0	6.20
		7/13/18	7.33	20.8	430.3	6.32
		1/11/19	7.27	20.6	418.5	6.51
		7/12/19	7.31	20.8	429.5	6.76
		1/20/20	6.77	21.1	432.8	6.30
		8/7/20	7.35	21.5	431.2	6.62
		1/12/21	7.33	21.3	437.8	6.79
		7/14/21	7.34	20.6	446.7	8.94

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
RUIZ	531770	2/5/08	7.73	18.2	445	263
		5/15/08	7.23	25.9	965	265
		7/30/08	6.99	22.1	999	243
		10/20/08	7.04	22.0	995	238
		2/12/09	6.94	20.9	748	254
		4/21/09	7.18	22.3	759	227
		8/3/09	7.05	22.9	1029	221
		10/28/09	7.09	20.6	920	227
		2/1/10	7.08	20.9	934	236
		4/26/10	7.01	22.5	920.1	240
		7/20/10	7.08	22.5	880	240
		10/20/10	7.52	20.7	970	231
		1/18/11	7.19	20.2	860	213
		4/8/11	7.09	19.8	923.3	236
		8/26/11	6.85	22.6	800	220
		10/13/11	7.19	21.5	810	230
		2/7/12	7.28	20.7	915.6	230
		2/7/12 DUP	7.28	20.7	915.6	228
		4/13/12	7.04	21.1	896.5	203
		7/18/12	6.87	21.6	900	214
		10/9/12	7.18	21.4	890.6	229
		1/11/13	7.21	20.7	895.8	219
		1/11/13 DUP	7.21	20.7	895.8	211
		4/11/13	7.26	21.9	876.8	229
		7/25/13	7.13	21.4	887.3	228
		10/17/13	7.23	20.8	891.9	210
		1/8/14	7.32	20.5	886.8	220
		4/15/14	7.26	21.2	873.5	215
		8/11/14	7.32	21.2	869.2	221
		10/21/14	7.09	21.4	886	209
		10/21/14 DUP	7.09	21.4	886	212
		1/27/15	7.14	21.4	853	215
		7/30/15	7.2	21.9	865.8	191
		1/12/16	7.29	19.9	831.3	190
		7/25/16	7.17	21.2	854.5	183
		1/26/17	7.09	20.4	844.2	194
		7/25/17	7.06	20.5	850.8	190
		1/16/18	7.03	20.1	829.4	185
		7/24/18	7.02	20.7	827.2	180
		1/15/19	7.00	19.8	824.6	170
		7/10/19	6.86	20.9	828.4	169
		1/16/20	7.20	19.6	809.9	176
RUIZ 146	232146	8/12/20	7.12	22.1	673.5	117
		1/12/21	7.22	21.1	632.6	103
		7/21/21	7.29	20.9	635.0	102

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
SCHWARTZ	210865	2/8/08	7.52	21.5	506	158
		4/21/08[1]	7.23	21.7	563	122
		5/19/08[1]	7.38	22.4	629	130
		6/23/08[1]	7.02	22.1	674	129
		7/29/08[1]	7.25	22.4	955	245
		8/28/08[1]	M	22.3	669	131
		9/23/08[1]	7.27	22.2	607	124
		10/22/08[1]	7.31	22.0	653	135
		11/19/08[1]	7.38	21.1	612	140
		12/17/08[1]	6.78	21.6	472	144
		1/29/09[1]	7.08	22.0	475	124
		2/23/09[1]	7.33	22.1	610	123
		4/17/09	7.46	22.2	520	120
		7/10/09	7.52	22.8	651	116
		7/10/09 DUP	7.52	22.8	651	117
		10/6/09	7.27	22.5	613	120
		1/22/10	7.79	19.5	664	133
		4/21/10	7.50	20.9	638	129
		7/21/10	7.43	22.0	650	134
		10/19/10	7.76	21.2	710	147
		1/17/11	7.15	21.2	620	116
		4/11/11	7.20	21.5	656.9	128
		7/18/11	7.36	23.7	612.4	116
		10/12/11	7.35	22.4	635.8	124
		2/6/12	7.32	21.3	629.7	116
		2/6/12 DUP	7.32	21.3	629.7	114
		4/10/12	7.48	21.6	626.1	120
		7/16/12	7.31	21.9	710	117
		10/17/12	7.48	21.6	645	121
		3/13/13	7.57	20.7	623.6	118
		5/14/13	7.61	21.5	629.7	112
		7/15/13	7.49	22.1	770.2	198
		10/14/13	7.55	20.9	633.3	109
		1/13/14	7.61	20.6	663.1	125
		4/9/14	7.48	21.5	635.9	110
		7/18/14	7.45	21.8	790.5	216
		10/22/14	7.28	22	646.0	119
		2/3/15	7.35	22.4	714	125
		2/3/15 DUP	7.35	22.4	714	126
		8/4/15	7.49	22.5	641.8	109
		1/14/16	7.55	20.6	678.3	134
		7/27/16	7.51	22.3	621.3	103
		7/27/16 DUP	7.51	22.3	621.3	102
		1/24/17	7.33	20.3	650.6	120
		7/11/17	7.29	20.6	627.0	103
		7/11/17 DUP	7.29	20.6	627.0	102
		1/9/18	7.26	20.5	619.5	97.2
		7/11/18	7.33	20.4	622.9	96.2
		1/9/19	7.24	20.4	671.2	131
		1/22/20	6.86	21.0	721.7	155
		7/22/20	7.26	21.2	686.1	138
		1/8/21	7.28	21.0	709.3	156
		1/8/21 DUP	7.28	21.0	709.3	148
		7/20/21	7.30	20.4	726.5	156
SRC	211345	4/23/08	7.57	25.8	380	19
		8/5/08	7.40	27.2	452	15.4
SWAN	NR	2/13/08	7.28	20.7	467	24.1
		5/14/08	7.24	21.2	479	23.7
		7/24/08	7.35	22.4	506	18
		10/16/08	7.32	20.7	488	19
		1/20/09	7.05	20.4	391	19.8
		4/7/09	7.21	21.5	447	19.9
		7/8/09	7.18	23.1	473	18.5
		10/5/09	7.18	21.4	496	19.7
		1/21/10	7.49	19.5	501	18.4
		4/21/10	7.42	20.3	512.1	20.9
		7/19/10	7.13	23.8	518.6	22.2
		1/18/11	7.19	17.8	483.6	18.7
		7/12/11	7.05	22.4	478.2	19.1
		2/3/12	7.40	20.5	484.5	20.1
		2/3/12 DUP	7.40	20.5	484.5	19.5
		7/10/12	7.00	22.7	370	19.4
		1/11/13	7.38	20.0	489.0	19.3
		7/8/13	7.45	22.8	489.7	19.4
		1/10/14	7.65	19.7	428.6	19.2
		7/714	7.44	21.8	464.7	19.4
		7/20/15	7.45	23.0	491.2	18.8
		7/20/15 DUP	7.45	23.0	491.2	18.9
		7/11/16	7.30	22.6	504.7	18.6
		7/27/17	7.13	20.9	500.8	18.5
		7/31/18	7.10	20.9	557.7	20.1
TERRY	229470	3/18/19	7.46	20.6	419.4	6.63
		7/19/19	7.31	20.1	447.3	6.25
		8/13/20	7.38	21.6	453.6	6.76
		7/28/21	7.38	20.0	457.8	7.08
TERRY 101	234101	9/3/21	7.41	20.6	413.0	10.7

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
THOMPSON 341	218341	5/29/13	7.22	24.4	415.9	7.32
		8/9/13	7.57	22.2	420.0	7.62
		10/9/13	7.49	21.6	425.2	7.54
		1/16/14	7.53	21.5	432.7	7.48
		4/14/14	7.50	21.6	425.8	7.68
		7/21/14	7.48	22.3	414.2	8.02
		10/22/14	7.23	22.3	430	8.02
		8/3/15	7.50	23.1	425.7	7.52
		7/15/16	7.45	22.4	420.8	8.46
		7/28/17	7.24	21.2	422.4	8.33
		7/26/18	7.34	21.0	420.6	8.27
		7/10/19	7.15	21.7	418.3	6.44
		8/12/20	7.29	21.6	420.3	7.85
		7/29/21	7.23	20.8	417.6	8.21
TM-02A	522574	3/4/08	8.67	22.6	302	12.3
		5/23/08	7.75	22.9	321	14.7
		8/15/08	7.84	26.4	369	14.4
		10/30/08	8.07	23.9	375	21.9
		2/24/09	8.10	24.8	340	20.3
		5/6/09	8.06	26.7	320	18.7
		8/12/09	8.34	26.9	398	20
		11/4/09	8.16	26.3	381	21.8
		3/10/10	8.13	25.2	351	21.4
		3/10/10 DUP	8.13	25.2	351	21.3
		4/6/10	6.96	24.6	363	25.6
		7/6/10	7.38	24.6	343	22.1
		2/10/11	6.93	20.2	359	22.9
		7/13/11	7.92	24.8	349	22.5
		2/2/12	7.89	22.2	360	23.0
		8/14/12	7.65	24.6	366	23.4
		2/15/13	7.72	22.2	369	22.1
		8/27/13	7.72	24.7	414	23.5
		2/18/14	7.54	24.3	388	24.5
		8/12/14	7.62	24.7	395	25.6
		8/1/17	7.84	24.7	333	21.5
		8/8/19	8.02	24.4	359	19.4
		7/15/21	8.14	24.9	359	20.1
TM-03	522575	5/20/08	7.51	22.2	778	110
		8/6/08	7.08	21.6	828	97
		11/12/08	7.47	20.5	590	128
		2/26/09	7.21	21.8	737	107
		2/26/09 DUP	7.21	21.8	737	102
		5/13/09	7.47	22.2	695	109
		8/18/09	7.48	22.4	822	98
		11/10/09	7.55	21.8	761	106
		3/2/10	7.56	21.6	748	99
		4/14/10	7.55	20.6	635	103
		7/7/10	7.19	21.4	566	103
		2/1/12	7.48	21.1	744	112
TM-06 MILLER	522695	2/27/08	7.44	19.6	457	13.9
		5/20/08	7.50	20.7	506	32.7
		8/4/08	7.41	20.7	529	31.3
		10/29/08	7.55	20.2	531	34.5
		2/26/09	7.18	20.4	574	32.7
		5/13/09	7.35	20.9	465	30.6
		8/18/09	7.50	20.9	560	30.9
		8/18/09 DUP	7.50	20.9	560	29.9
		11/12/09	7.53	20.4	530	31.1
		4/14/10	7.35	19.4	461	29.0
		7/2/10	7.24	20.1	438	29.8
		7/21/11	7.1	20.1	516	31.7
		7/9/12	6.82	20.8	505	33.5
		2/14/13	6.92	19.6	527	31.1
		8/19/13	7.21	19.9	556	32.5
		7/21/14	7.17	19.9	551	33.0
		7/26/17	7.27	20.4	521	34.5
		7/31/19	7.40	20.5	531	35.6
		7/21/21	7.49	20.5	536	37.3

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TM-07	522576	3/6/08	7.54	20.8	726	22.5
		5/22/08	6.96	20.1	385	22.9
		8/6/08	7.04	22.8	519	22.2
		11/4/08	7.76	20.6	347	31.2
		2/20/09	7.77	19.9	376	22.5
		5/13/09	7.30	22.9	559	130
		8/17/09	7.60	22.6	442	134
		11/3/09	7.85	21.8	441	134
		3/2/10	7.67	21.6	422	124
		5/25/10	7.77	21.2	398	42.6
		7/6/10	7.58	22.0	350	44.7
		2/11/11	6.87	20.1	393	24.9
		7/21/11	6.90	21.4	402	41.7
		2/9/12	7.15	23.0	670	171
		8/13/12	6.83	21.7	415	25.4
		2/27/13	6.81	19.9	380	25.6
		8/28/13	7.36	21.2	369	25.0
		2/13/14	6.99	20.4	372	27.4
		8/21/14	7.35	20.6	358	48.5
		2/4/15	7.58	21.0	375	102
		9/15/15	7.36	21.5	411	91.3
		3/14/16	7.46	21.4	419	130
		9/15/16	7.47	21.2	638	123
		3/1/17	7.59	20.8	581	129
		8/2/17	7.56	21.5	563	129
		2/12/18	7.78	20.4	544	133
		8/6/18	7.52	21.8	586	116
		2/5/19	7.71	20.7	568	114
		8/19/19	7.50	21.1	619	94.1
		2/10/20	7.61	20.8	614	117
		3/17/21	7.39	20.8	621	109
		8/16/21	7.32	22.0	612	114
TM-08 SWAN	522817	2/13/08	7.63	24.1	511	24.1
		5/14/08	7.44	24.4	480	12.6
		7/23/08	7.76	28.1	522	12.6
TM-10 USBP	522696	12/8/11	6.95	19.6	381	16.8
		3/15/12	7.85	20.2	382.3	15.1
		4/24/12	7.88	21.0	280	13.4
		4/24/12 DUP	7.88	21.0	280	13.3
		9/13/12	8.09	21.1	407	13.3
		10/19/12	8.17	21.0	428.2	12.8
		3/7/13	8.33	21.2	415.1	12.7
		4/17/13	8.27	20.3	423.9	12.8
		7/23/13	8.16	21.4	426.1	13.2
		11/6/13	7.90	21.3	386.5	4.81
		11/6/13 DUP	7.90	21.3	386.5	4.64
		1/15/14	7.91	21.1	424.4	3.98
		5/15/14	7.98	20.4	410.6	5.12
		7/15/14	7.86	21.4	421.9	5.46
		10/16/14	7.51	22.0	439	4.16
		1/28/15	7.75	23.0	413	3.96
		7/24/15	7.87	22.6	478.8	4.38
		2/2/16	7.95	19.8	493.5	5.32
		7/13/16	7.73	22.0	514.9	6.67
		1/27/17	7.75	21.3	418.4	4.81
		7/17/17	7.77	23.5	409.5	8.01
		1/8/18	7.60	20.8	387.3	6.80
		7/9/18	7.92	23.5	391.4	8.65
		1/8/19	7.54	20.6	381.8	12.8
		7/16/19	7.67	21.5	378.6	15.0
		1/6/20	7.78	20.1	376.0	14.9
		8/3/20	7.62	21.4	374.5	14.1
		1/5/21	7.75	22.5	369.5	14.5
		7/12/21	7.66	20.5	365.5	15.6
TM-15 MILLER	522699	2/27/08	7.66	21.9	344	14
		5/23/08	7.54	22.1	371	14.4
		8/5/08	7.42	23.3	413	13.7
		10/28/08	7.63	22.6	387	18.6
		10/28/08 DUP	7.63	22.6	387	18.8
		2/26/09	7.57	22.0	373	14.6
		5/13/09	7.61	23.1	344	13.7
		8/17/09	7.73	23.2	398	14.2
		11/3/09	7.73	23.4	414	14.8
		2/24/10	7.66	22.8	381	14.4
		4/27/10	7.71	23.0	383.6	14.9
		7/20/10	7.77	23.0	324	14.3
		7/12/11	7.36	23.2	380	14.2
		7/10/12	7.04	23.7	379	14.9
		2/12/13	6.96	21.7	393	14.6
		9/4/13	7.2	22.8	412	14.8
		7/22/14	7.18	23.2	407	14.6
		9/8/15	7.19	23.0	411	14.7
		9/14/16	7.45	23.1	381	14.5
		8/1/17	7.38	22.9	384	14.8
		7/18/18	7.46	23.1	386	14.8
		8/19/19	7.59	22.7	387	14.6
		8/24/20	7.61	22.9	386	14.9
		7/12/21	7.73	23.3	387	14.8

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TM-16	522578	3/5/08	7.17	20.6	1351	497
		5/22/08	7.05	20.5	1304	522
		8/6/08	6.67	20.9	1410	466
		11/5/08	7.14	19.8	1162	547
		2/20/09	6.90	21.1	1292	492
		5/13/09	6.93	21.1	1179	484
		8/19/09	7.08	21.2	1354	468
		11/10/09	7.02	21.0	1310	505
		3/2/10	7.13	20.4	1313	451
		4/14/10	6.90	19.9	987	484
		7/2/10	6.81	20.8	858	474
		7/14/11	6.97	20.5	1285	511
		7/16/11	6.97	20.5	1285	513
		7/9/12	6.95	21.0	1292	544
		8/15/13	6.86	20.3	1374	539
		8/4/14	6.79	20.6	1368	550
		7/12/17	6.87	20.9	1321	536
		7/30/19	7.15	21.0	1310	479
		7/15/21	7.06	21.2	1302	499
TM-19A	522581	3/6/08	8.02	22.2	240	56.1
		5/22/08	7.36	24.0	501	64.5
		8/6/08	7.32	22.6	494	55.3
		11/18/08	7.79	24.3	365	66.3
		3/3/09	7.41	24.5	489	66.2
		4/22/09	7.44	24.3	494	62.5
		8/12/09	7.61	24.4	554	61.3
		11/4/09	7.47	24.2	522	63
		3/10/10	7.54	22.9	511	60.6
		4/9/10	6.49	23.0	435	66.5
		7/7/10	6.93	23.8	428	63.2
		2/14/11	6.69	21.4	511	61.9
		7/15/11	7.11	24.1	499	62.1
		2/2/12	7.13	22.5	498	62.2
		7/10/12	7.12	23.5	505	63.7
		2/15/13	6.74	23.2	522	60.1
		9/4/13	7.11	23.8	538	61.3
		2/12/14	6.93	23.6	548	62.8
		7/21/14	7.06	24.2	542	63.3
		9/10/15	7.31	24.0	502	61.4
		8/18/16	7.27	24.1	505	64.7
		7/26/17	7.27	24.1	505	64.6
		7/25/18	7.49	24.3	511	71.4
		8/7/19	7.41	24.1	510	56.6
		8/17/20	7.52	23.5	515	59.2
		8/18/21	7.47	24.1	504	62.0
TM-42	562554	3/5/08	7.10	20.8	1342	482
		5/22/08	7.05	21.4	1270	483
		8/6/08	6.69	22.0	1388	467
		11/6/08	6.90	21.0	1025	477
		2/18/09	6.72	22.3	1245	429
		5/7/09	6.88	24.5	1155	430
		5/7/09 DUP	6.88	24.5	1155	445
		8/18/09	7.04	24.4	1336	428
		11/3/09	7.07	23.1	1266	430
		2/24/10	7.13	22.7	1236	390
		4/19/10	6.87	21.5	985	444
		7/2/10	6.81	23.9	827	407
		7/12/11	6.83	22.0	1205	441
		2/9/12	6.76	20.5	1172	444
		7/11/12	6.72	21.1	1155	449
		2/12/13	6.69	20.2	1185	400
		8/28/13	6.89	21.3	1212	416
		7/21/14	6.85	21.4	1205	418
		7/26/17	6.98	21.6	1234	485
		8/7/19	6.99	21.7	1371	527
		7/21/21	6.93	21.8	1500	676
TM-43	564729	3/3/08	8.57	21.0	341	2.1
		8/4/08	8.14	25.7	436	<5
TM-43A	564726	3/3/08	6.17	19.9	2788	1420
		8/4/08	6.03	21.6	3149	1320
TM-43B	565004	3/3/08	6.79	20.6	514	0.7
		8/5/08	6.89	21.0	507	31.8
		8/5/08 DUP	6.89	21.0	507	32.5

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TVI 236	802236	3/20/08	7.48	20.0	488	31.3
		5/7/08	7.13	20.4	494	32.6
		7/15/08	7.39	21.9	532	37.6
		10/15/08	7.45	22.3	490	36.6
		2/11/09	7.32	20.1	391	27.6
		4/17/09	7.36	19.3	418	28.1
		4/17/09 DUP	7.36	19.3	418	28.3
		7/21/09	7.59	22.9	484	31.3
		10/19/09	7.31	22.1	513	33.2
		2/2/10	7.39	20.4	497	26
		4/23/10	7.46	20.0	504.6	30.9
		7/15/10	7.37	21.5	499.4	39.3
		7/15/11	6.80	22.4	499.6	42.9
		7/16/12	7.30	21.1	500	36.3
		10/9/12	7.56	20.4	513.7	40.9
		7/18/13	7.38	20.9	514.4	42.4
		7/16/14	7.41	21.1	517.3	43.9
		7/30/15	7.43	20.5	529.1	16.5
		1/12/16	7.57	19.5	505.8	44.1
		9/26/16	7.42	19.0	511.4	15.1
		1/27/17	7.32	19.3	519.5	47.0
		7/31/17	7.04	19.0	532.5	15.8
		1/17/18	7.30	18.6	531.3	29.5
		7/27/18	7.22	19.3	535.8	17.5
		1/16/19	7.41	18.5	530.8	29.0
TVI 875	568875	2/21/08	7.28	21.1	739	244
		5/7/08	7.09	21.2	833	250
		7/15/08	7.27	22.4	925	274
		10/15/08	7.26	22.1	878	245
		2/11/09	7.20	20.7	738	312
		4/17/09	7.31	21.5	690	251
		7/21/09	7.47	22.2	812	236
		10/19/09	7.23	21.9	822	247
		2/2/10	7.32	20.8	939	250
		4/23/10	7.34	20.2	930.4	294
		7/15/10	7.46	21.8	842.5	262
		10/20/10	7.79	21.9	890	242
		1/20/11	7.39	21.0	780	226
		4/11/11	7.20	21.1	820.6	235
		7/15/11	6.75	22.2	791.9	239
		10/12/11	7.35	22.7	868.5	262
		2/3/12	7.20	20.5	850	299
		4/25/12	7.19	21.3	840	267
		7/16/12	7.13	22.2	860	261
		7/16/12 DUP	7.13	22.2	860	267
		10/9/12	7.39	20.9	882.8	281
		2/6/13	7.23	20.8	946.1	335
		4/10/13	7.35	20.9	907.6	296
		7/18/13	7.31	21.4	994.2	355
		10/8/13	7.35	21.0	894.6	275
		1/9/14	7.23	20.3	917.4	305
		4/9/14	7.31	20.9	910.7	296
		7/16/14	7.30	21.6	940.2	328
		10/9/14	7.12	21.2	963	245
		7/30/15	7.35	22.1	915.4	277
		7/14/16	7.28	21.6	919.1	271
		7/13/17	7.19	20.1	920.0	303
		7/12/18	7.16	20.0	928.8	309
		7/18/19	7.09	19.8	972.2	325
WALKER	200393	2/13/08	7.05	20.2	650	20
		7/23/08	7.25	20.7	740	45.4

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
WEED	544535	2/14/08	7.74	21.7	323	11.1
		5/15/08	7.22	22.7	365	12.6
		7/30/08	7.42	32.0	407	11.5
		10/20/08	8.10	31.6	405	10.2
		2/13/09	7.66	21.0	303	12.6
		4/22/09	7.46	22.2	368	11.6
		7/16/09	7.50	21.9	365	10.8
		10/20/09	7.34	21.6	381	12.7
		2/1/10	7.60	20.8	382	12.2
		4/26/10	7.69	22.1	366	13.4
		7/21/10	7.36	22.1	354.9	13.6
		7/21/10 DUP	7.36	22.1	354.9	13.5
		10/19/10	7.63	21.2	378.8	11.7
		1/19/11	7.62	21.1	383.6	12.2
		4/11/11	7.44	21.5	386.6	13
		7/18/11	7.56	22.0	379.3	12.7
		10/12/11	7.02	21.7	382.8	13.3
		2/6/12	7.60	21.4	385.0	13.5
		4/25/12	7.60	22.1	360	12.7
		7/5/12	7.64	21.7	385.8	12.9
		10/9/12	7.66	21.5	385.1	14.0
		2/7/13	7.7	21.4	389.7	14.0
		2/7/13 DUP	7.7	21.4	389.7	13.2
		4/10/13	7.76	20.6	383.9	13.0
		7/19/13	7.63	21.3	386.6	14.2
		10/18/13	7.72	21.1	387.3	13.1
		1/15/14	7.73	20.7	388.4	13.4
		4/10/14	7.85	21.5	387.1	13.5
		7/18/14	7.79	21.4	386.7	14.1
		10/22/14	7.5	22.7	394	13.7
		1/30/15	7.81	20.7	381	14.2
		8/4/15	7.72	22	386.7	13.1
		1/14/16	7.79	20.2	376.9	13.7
		7/22/16	7.89	22.9	376.2	13.2
		1/23/17	7.58	20.4	387.5	13.3
		7/24/17	7.52	20.5	386.8	13.9
		1/16/18	7.51	20.3	384.2	14.0
		7/16/18	7.49	20.4	385.1	13.3
		1/8/19	7.52	20.3	388.2	13.1
		7/8/19	7.02	21.3	393.5	11.1
		1/22/20	7.10	20.8	387.1	13.5
		7/21/20	7.63	21.2	384.2	13.7
		1/7/21	7.55	21.2	383.1	12.8
		7/21/21	7.63	20.2	384.3	14.7
WEISKOPF 802	641802	2/15/08	7.48	20.0	1072	500
		5/7/08	7.10	21.8	1251	483
		7/16/08	7.07	22.2	1399	560
		10/28/08	6.98	20.8	1401	602
		1/29/09	6.79	20.7	1014	503
		4/15/09	7.53	21.1	1164	503
		7/15/09	7.84	22.1	1317	486
		10/15/09	6.89	21.4	1216	484
		2/2/10	7.22	20.4	1319	451
		4/22/10	7.30	19.3	1329	572
		7/19/10	7.06	23.1	1330	573
		10/20/10	7.64	21.6	1360	515
		10/20/10 DUP	7.64	21.6	1360	529
		1/17/11	7.16	22.0	1270	481
		4/11/11	6.88	22.4	1365	557
		8/26/11	6.83	23.5	1200	549
		10/13/11	7.07	22.8	1299	539
		2/3/12	7.35	21.5	1363	583
		4/25/12	7.07	23.5	1300	575
		7/13/12	6.83	22.2	1530	552
		10/11/12	7.26	21.3	1369	572
		10/11/12 DUP	7.26	21.3	1369	577
		1/16/13	7.14	20.5	1298	523
		4/17/13	7.22	20.1	1337	558
		7/18/13	7.45	21.3	1131	420
		10/17/13	7.29	22.5	1131	437
		1/16/14	7.28	22.7	1323	563
		4/11/14	7.29	23.0	1304	558
		7/18/14	7.17	23.3	1375	608
		10/9/14	7.08	24.5	1094	405
		8/4/15	7.07	24.5	1571	699
		8/4/15 DUP	7.07	24.5	1571	701
		7/26/16	7.00	22.8	1483	702
		7/24/17	6.85	22.8	1524	698
		7/23/19	6.90	21.8	1520	657

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
WEISKOPF 897	220897	12/6/12	7.93	23.6	398.3	18.5
		1/16/13	7.88	23.1	398.9	18.2
		1/16/13 DUP	7.88	23.1	398.9	18.2
		4/17/13	7.86	22.6	394.4	19.0
		7/18/13	7.84	24.3	393.2	18.0
		10/17/13	7.90	23.3	392.2	18.3
		1/16/14	7.90	23	395.8	18.4
		4/11/14	7.92	23.5	390.5	17.9
		7/18/14	7.87	23.9	387.4	18.4
		10/9/14	7.69	22.8	392	17.7
		8/4/15	7.89	24.9	385.7	17.3
		7/26/16	7.81	23.8	387.0	17.8
		7/24/17	7.58	23.1	386.7	17.0
		7/16/18	7.60	22.9	383.3	16.7
		7/23/19	7.57	22.9	383.1	16.1
		7/23/20	7.59	23.7	381.5	16.9
		7/26/21	7.57	22.9	380.8	16.5
WMD-2011-03M	913037	2/2/12	6.66	22.0	1190	391
ZANDER	205126	2/4/08	7.24	19.7	392	5.7
		5/6/08	7.26	21.2	404	6.3
		7/16/08	6.92	22.9	441	6.9
		10/28/08	7.40	21.2	415	15
		2/10/09	7.50	20.4	317	6
		4/16/09	7.47	21.7	352	5.5
		7/14/09	7.36	22.9	418	4.5
		10/13/09	7.41	21.7	407	6.3
		1/26/10	7.49	20.3	411	5.7
		4/2/10	7.55	20.0	416	6.70
		7/21/10	7.38	22.7	388.2	6.78
		10/19/10	6.78	21.3	430	6.56
		1/18/11	7.59	18.9	380	6.14
		1/18/11 DUP	7.59	18.9	380	6.06
		4/6/11	7.20	19.7	425.8	6.12
		7/13/11	7.29	22.9	410.10	6.43
		10/12/11	7.35	22.2	426.2	6.38
		1/31/12	7.29	20.3	420	6.59
		4/10/12	7.49	21.9	420.1	6.90
		4/10/12 DUP	7.49	21.9	420.1	6.65
		7/17/12	7.34	22.2	430	6.38
		10/8/12	7.58	20.8	431.4	7.03
		1/10/13	7.58	20.7	436.1	6.52
		4/18/13	7.65	20.8	436.7	6.66
		7/15/13	7.55	21.8	431.1	6.49
		10/7/13	7.59	21.5	430.2	6.41
		1/7/14	7.50	20.9	435.4	6.77
		4/9/14	7.57	21.5	434.4	6.57
		7/17/14	7.61	21.5	432.0	6.99
		10/13/14	7.52	23.8	422.0	6.24
		8/3/15	7.61	22.5	430.3	6.54
		7/15/16	7.53	22.4	434.1	7.12
		7/24/17	7.26	20.5	430.2	7.21
		7/24/18	7.28	20.7	427.0	7.12
		7/16/19	7.23	20.4	426.5	6.49
		8/11/20	7.29	21.2	426.3	6.99
		7/27/21	7.37	20.4	423.8	7.96

Notes:
35-71891 = ADWR 35 Database
ADWR = Arizona Department of Water Resources
deg C = degrees Celsius
DUP = Blind duplicate
M = Multi-Meter Malfunction
mg/L = milligrams per liter
ND = No Data
NR = No Record
SC = Specific Conductance
SU = Standard Units
µS/cm = microsiemens per centimeter
[1] Verified drinking water supply well, sample collected for sulfate trend analysis and interim action evaluation

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ANDERSON 396	613396	601134.729	3468816.065	4588.51	3/20/08	145.46	4443.05
					5/5/08	145.84	4442.67
					7/14/08	146.16	4442.35
					10/15/08	146.21	4442.30
					1/27/09	145.97	4442.54
					4/14/09	146.21	4442.30
					7/14/09	146.88	4441.63
					10/12/09	147.31	4441.20
					1/27/10	147.31	4441.20
					4/21/10	147.57	4440.94
					7/19/10	148.34	4440.17
					10/19/10	147.75	4440.76
					1/17/11	148.63	4439.88
					4/11/11	149.46	4439.05
					7/14/11	149.92	4438.59
					10/11/11	150.19	4438.32
					2/1/12	150.19	4438.32
					4/25/12	150.69	4437.82
					7/12/12	151.34	4437.17
					10/10/12	151.50	4437.01
					1/17/13	151.24	4437.27
					4/15/13	152.08	4436.43
					7/18/13	152.19	4436.32
					10/16/13	152.41	4436.10
					1/9/14	152.14	4436.37
					4/7/14	152.56	4435.95
					7/11/14	152.02	4436.49
					10/6/14	152.70	4435.81
					2/2/15	152.09	4436.42
					5/18/15	152.22	4436.29
					7/22/15	152.63	4435.88
					10/8/15	152.39	4436.12
					1/12/16	152.00	4436.51
					7/19/16	154.43	4434.08
					1/16/17	153.34	4435.17
					7/18/17	153.99	4434.52
					1/16/18	153.89	4434.62
					7/18/18	154.61	4433.90
					1/7/19	155.18	4433.33
					7/11/19	155.70	4432.81
					1/6/20	155.94	4432.57
					7/22/20	156.05	4432.46
					1/5/21	156.67	4431.84
					7/27/21	157.41	4431.10
ANDERSON 458	221458	601118.690	3468826.284	4585.37	9/7/12	173.76	4411.61
					10/10/12	151.82	4433.55
					1/17/13	152.17	4433.20
					4/15/13	158.42	4426.95
					7/18/13	157.56	4427.81
					10/16/13	156.24	4429.13
					1/9/14	152.58	4432.79
					4/7/14	153.54	4431.83
					7/11/14	156.66	4428.71
					10/6/14	157.31	4428.06
					5/18/15	156.79	4428.58
					7/22/15	157.03	4428.34
					7/19/16	153.02	4432.35
					7/18/17	155.93	4429.44
					7/18/18	158.55	4426.82
					7/11/19	185.21	4400.16
					7/22/20	178.36	4407.01
					7/27/21	161.26	4424.11

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ASLD 435	616435	593496.865	3468879.791	4471.34	6/27/13	250.85	4220.49
					9/24/13	250.85	4220.49
					12/3/13	250.79	4220.55
					2/25/14	250.75	4220.59
					6/4/14	250.93	4220.41
					9/10/14	250.97	4220.37
					11/20/14	250.66	4220.68
					3/24/15	250.25	4221.09
					9/17/15	250.17	4221.17
					3/24/16	250.17	4221.17
					9/28/16	250.21	4221.13
					3/20/17	250.55	4220.79
					8/10/17	250.94	4220.40
					3/8/18	251.30	4220.04
					8/22/18	251.57	4219.77
					2/14/19	251.93	4219.41
					9/9/19	252.42	4218.92
					2/27/20	252.73	4218.61
					8/25/20	253.10	4218.24
					3/23/21	253.47	4217.87
					9/20/21	253.99	4217.35
AWC-02	616586	598907.911	3468549.357	4547.64	4/8/08	116	4431.64
					8/27/08	121.12	4426.52
					10/23/08[1]	115	4432.64
					4/22/09[1]	118	4429.64
					10/9/09[1]	117	4430.64
					4/23/10[1]	119	4428.64
					4/11/13	127.64	4420.00
					7/25/13	128.89	4418.75
					10/7/13[1]	125.00	4422.64
					1/7/14	125.36	4422.28
					5/14/14	124.89	4422.75
					7/16/14	124.49	4423.15
					10/15/14	122.52	4425.12
					1/29/15	120.00	4427.64
					5/18/15	162.60	4385.04
					7/21/15	129.08	4418.56
					10/2015[1]	128.00	4419.64
					1/13/16	128.80	4418.84
					7/19/16	125.40	4422.24
					1/19/17	119.69	4427.95
					9/6/17	131.56	4416.08
					1/17/18	131.93	4415.71
					7/25/18	129.03	4418.61
					1/16/19	121.92	4425.72
					7/23/19	130.58	4417.06
					1/13/20	123.78	4423.86
					8/3/20	128.44	4419.20
					1/4/21	128.06	4419.58
					7/20/21	129.77	4417.87

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
AWC-03	616585	599090.322	3468681.898	4539.52	4/8/08	112	4427.52
					8/27/08	119.40	4420.12
					10/23/08[1]	106	4433.52
					4/22/09[1]	114	4425.52
					10/9/09[1]	116	4423.52
					4/23/10[1]	116	4423.52
					4/11/13[1]	125	4414.52
					7/16/13[1]	126	4413.52
					10/7/13[1]	122	4417.52
					1/7/14[1]	121	4418.60
					5/14/14[1]	121.50	4418.02
					7/16/14[1]	123.50	4416.02
					10/15/14	119.60	4419.92
					1/29/15	120.20	4419.32
					5/19/15	186.20	4353.32
					7/21/15	118.00	4421.52
					10/2015[1]	115.00	4424.52
					1/13/16[1]	118.00	4421.52
					7/19/16	125.50	4414.02
					1/19/17[1]	123.00	4416.52
					9/6/17[1]	121.30	4418.22
					1/17/18[1]	113.60	4425.92
					7/25/18[1]	125.7	4413.82
					1/16/19[1]	123.0	4416.52
					7/23/19[1]	126.50	4413.02
					1/13/20[1]	123.50	4416.02
					8/3/20[1]	129.00	4410.52
					1/4/21[1]	126.50	4413.02
					7/20/21[1]	129.00	4410.52
AWC-04	616584	598949.929	3468717.084	4540.48	4/8/08	108	4432.48
					8/27/08	112.56	4427.92
					10/23/08[1]	111.31	4429.17
					4/22/09[1]	110	4430.48
					10/9/09[1]	110	4430.48
					4/23/10[1]	109	4431.48
					4/11/13	120.93	4419.55
					7/16/13	123.76	4416.72
					10/7/13[1]	116.00	4424.48
					1/7/14	115.98	4424.50
					5/14/14	115.32	4425.16
					7/16/14	118.44	4422.04
					10/15/14	114.29	4426.19
					1/29/15	112.20	4428.28
					5/19/15	113.90	4426.58
					7/21/15	131.70	4408.78
					10/2015[1]	129	4411.48
					1/13/16	130.33	4410.15
					7/19/16	119.70	4420.78
					1/19/17	113.15	4427.33
					9/6/17	127.92	4412.56
					1/17/18	125.86	4414.62
					7/25/18	120.27	4420.21
					1/16/19	115.33	4425.15
					7/23/19	126.48	4414.00
					1/13/20	115.84	4424.64
					8/3/20	119.42	4421.06
					2/9/21	118.99	4421.49
					7/20/21	121.31	4419.17

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
AWC-05	590620	599269.904	3468541.692	4542.51	4/8/08	284	4258.51
					8/27/08	299.65	4242.86
					10/23/08	284	4258.51
					4/22/09	286	4256.51
					6/3/09	125	4417.51
					10/9/09[1]	289	4253.51
					4/23/10[1]	278	4264.51
					4/11/13	229.56	4312.95
					7/16/13	203.17	4339.34
					10/7/13[1]	142.00	4400.51
					1/7/14	123.09	4419.42
					5/14/14	346.75	4195.76
					7/16/14	346.34	4196.17
					10/15/14	316.16	4226.35
					1/29/15	133.98	4408.53
					5/18/15	148.05	4394.46
					7/21/15	120.84	4421.67
					10/2015[1]	116	4426.51
					1/13/16	116.22	4426.29
					7/19/16	329.30	4213.21
					1/19/17	318.24	4224.27
					9/6/17	322.50	4220.01
					1/17/18	194.14	4348.37
					7/25/18	132.92	4409.59
					1/16/19	147.85	4394.66
					7/23/19	195.46	4347.05
					1/13/20	143.20	4399.31
					8/3/20	156.45	4386.06
					1/4/21	140.31	4402.20
					7/20/21	188.07	4354.44

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BANKS 987	647987	606981.921	3469206.175	4648.18	2/27/08	208.00	4440.18
					5/12/08	216.30	4431.88
					7/21/08	228.95	4419.23
					10/13/08	228.20	4419.98
					1/21/09	206.64	4441.54
					4/8/09	205.50	4442.68
					7/9/09	235.68	4412.50
					10/7/09	236.71	4411.47
					2/25/10	216.98	4431.20
					4/20/10	219.35	4428.83
					7/20/10	235.60	4412.58
					10/20/10	230.24	4417.94
					1/17/11	215.28	4432.90
					4/5/11	221.68	4426.50
					7/11/11	237.39	4410.79
					10/12/11	237.34	4410.84
					1/31/12	228.95	4419.23
					4/11/12	219.39	4428.79
					7/6/12	232.59	4415.59
					10/4/12	237.16	4411.02
					1/18/13	237.81	4410.37
					4/8/13	237.92	4410.26
					7/9/13	238.32	4409.86
					10/15/13	239.48	4408.70
					1/14/14	239.53	4408.65
					4/8/14	231.49	4416.69
					7/8/14	228.85	4419.33
					10/21/14	233.96	4414.22
					1/26/15	230.87	4417.31
					7/24/15	237.53	4410.65
					1/11/16	237.42	4410.76
					7/12/16	232.54	4415.64
					1/17/17	221.90	4426.28
					7/26/17	233.25	4414.93
					1/15/18	237.31	4410.87
					7/30/18	237.12	4411.06
					1/15/19	237.21	4410.97
					7/11/19	237.42	4410.76
					1/14/20	237.42	4410.76
					8/13/20	237.29	4410.89
					1/13/21	235.12	4413.06
					7/20/21	237.31	4410.87
BARTON 919	644919	606243.850	3469076.689	4692.36	5/12/08	113.71	4578.65
					7/23/08	113.56	4578.80
					10/16/08	113.20	4579.16
					3/11/09	112.92	4579.44
					4/10/09	112.89	4579.47
					7/7/09	112.86	4579.50
					7/17/13	114.18	4578.18
					1/14/14	113.96	4578.40
					7/17/14	113.42	4578.94
					7/20/15	113.22	4579.14
					1/11/16	113.33	4579.03
					7/19/16	113.35	4579.01
					1/17/17	113.47	4578.89
					7/14/17	113.52	4578.84
					1/15/18	113.88	4578.48
					7/17/18	113.95	4578.41
					1/15/19	114.27	4578.09
					7/11/19	113.72	4578.64
					1/21/20	113.72	4578.64

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BF-01	539783	604169.077	3472151.593	4835.23	3/4/08	348.99	4486.24
					5/23/08	348.80	4486.43
					8/5/08	348.66	4486.57
					11/5/08	348.94	4486.29
					2/20/09	348.78	4486.45
					5/6/09	348.73	4486.50
					8/17/09	348.73	4486.50
					11/4/09	348.65	4486.58
					3/1/10	348.84	4486.39
					4/7/10	348.70	4486.53
					7/6/10	348.69	4486.54
					7/13/11	348.67	4486.56
					2/1/12	347.84	4487.39
					8/13/12	343.95	4491.28
BIMA	577927	606001.245	3471852.804	4802.05	5/13/08	367.31	4434.74
					8/18/08	370.24	4431.81
					10/23/08	353.96	4448.09
					1/20/09	353.07	4448.98
					4/7/09	357.76	4444.29
					7/8/09	365.44	4436.61
					10/5/09	370.11	4431.94
					4/19/10	382.25	4419.80
					7/21/10	386.89	4415.16
					10/18/10	387.39	4414.66
					1/19/11	391.47	4410.58
					4/4/11	395.22	4406.83
BMO-2008-1G	909474	606467.681	3471723.644	4805.10	8/27/08	62.05	4743.05
					11/11/08	60.95	4744.15
					2/25/09	61.43	4743.67
					4/28/09	62.01	4743.09
					8/4/09	62.96	4742.14
					10/27/09	63.61	4741.49
					2/17/10	64.51	4740.59
					4/15/10	65.05	4740.05
					7/7/10	65.83	4739.27
					2/10/11	67.74	4737.36
					7/12/11	69.37	4735.73
					2/8/12	70.33	4734.77
					8/14/12	71.73	4733.37
					2/14/13	72.95	4732.15
					8/14/13	73.82	4731.28
					2/13/14	73.79	4731.31
					7/22/14	74.14	4730.96
					2/4/15	73.70	4731.40
					9/10/15	74.12	4730.98
					3/3/16	74.30	4730.80
					8/17/16	75.02	4730.08
					3/1/17	75.62	4729.48
					7/24/17	76.16	4728.94
					2/14/18	76.97	4728.13
					7/10/18	77.70	4727.40
					2/5/19	78.44	4726.66
					7/31/19	78.42	4726.68
					2/5/20	77.75	4727.35
					8/12/20	76.38	4728.72
					2/3/21	76.88	4728.22
					7/14/21	78.06	4727.04

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-3B	909147	602012.923	3467919.582	4583.97	7/18/08	138.05	4445.92
					11/4/08	137.95	4446.02
					2/19/09	138.19	4445.78
					5/11/09	138.46	4445.51
					8/6/09	139.02	4444.95
					10/26/09	139.60	4444.37
					3/3/10	140.03	4443.94
					4/8/10	140.07	4443.90
					7/1/10	140.70	4443.27
					2/14/11	141.41	4442.56
					7/12/11	142.21	4441.76
					2/23/12	143.90	4440.07
					7/10/12	143.70	4440.27
					2/15/13	144.53	4439.44
					8/27/13	145.10	4438.87
					2/11/14	145.08	4438.89
					7/21/14	145.36	4438.61
					2/5/15	144.79	4439.18
					5/28/15	144.90	4439.07
					9/14/15	145.24	4438.73
					10/21/15	145.39	4438.58
					3/3/16	145.18	4438.79
					8/18/16	145.94	4438.03
					3/1/17	146.32	4437.65
					7/26/17	146.84	4437.13
					2/8/18	147.16	4436.81
					7/10/18	147.92	4436.05
					2/5/19	148.88	4435.09
					8/6/19	149.47	4434.50
					2/6/20	149.99	4433.98
					8/12/20	150.17	4433.80
					2/3/21	151.16	4432.81
					7/27/21	151.74	4432.23
BMO-2008-4B	910096	601099.405	3468383.430	4573.17	12/11/08	130.77	4442.40
					2/18/09	130.58	4442.59
					4/30/09	131.24	4441.93
					8/6/09	131.96	4441.21
					10/27/09	132.04	4441.13
					2/24/10	131.82	4441.35
					4/16/10	132.65	4440.52
					7/2/10	133.20	4439.97
					2/15/11	133.78	4439.39
					7/22/11	134.80	4438.37
					2/23/12	134.64	4438.53
					9/17/12	136.15	4437.02
					1/15/13	136.13	4437.04
					4/15/13	136.78	4436.39
					9/18/13	137.04	4436.13
					1/9/14	136.96	4436.21
					7/18/14	137.49	4435.68
					1/12/16	136.54	4436.63
					9/30/17	138.68	4434.49
					1/18/18	138.71	4434.46
					7/26/18	139.42	4433.75
					1/14/19	139.96	4433.21
					7/22/19	140.40	4432.77
					1/22/20	140.66	4432.51
					8/11/20	140.89	4432.28
					7/22/21	142.25	4430.92

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-5B	909653	600438.159	3468994.715	4585.10	9/30/08	145.10	4440.00
					2/18/09	144.35	4440.75
					4/27/09	144.78	4440.32
					8/4/09	145.36	4439.74
					10/29/09	145.88	4439.22
					2/15/10	145.42	4439.68
					4/15/10	145.80	4439.30
					7/7/10	146.59	4438.51
					10/5/10	147.00	4438.10
					2/14/11	147.56	4437.54
					5/12/11	148.04	4437.06
					7/13/11	148.31	4436.79
					12/7/11	148.45	4436.65
					2/3/12	148.47	4436.63
					4/18/12	149.02	4436.08
					7/10/12	148.65	4436.45
					10/16/12	149.91	4435.19
					2/7/13	149.94	4435.16
					2/12/13	150.06	4435.04
					5/15/13	150.55	4434.55
					8/20/13	150.82	4434.28
					11/1/13	150.77	4434.33
					2/11/14	150.33	4434.77
					5/7/14	150.83	4434.27
					8/19/14	151.13	4433.97
					11/13/14	150.78	4434.32
					2/3/15	150.10	4435.00
					5/28/15	150.47	4434.63
					9/8/15	150.38	4434.72
					10/21/15	150.23	4434.87
					3/14/16	149.76	4435.34
					9/14/16	151.31	4433.79
					3/1/17	151.56	4433.54
					8/1/17	151.95	4433.15
					2/8/18	151.97	4433.13
					3/8/18	152.04	4433.06
					4/11/18	152.27	4432.83
					5/29/18	152.32	4432.78
					6/19/18	152.74	4432.36
					7/25/18	152.96	4432.14
					2/4/19	153.41	4431.69
					8/7/19	153.76	4431.34
					2/6/20	153.99	4431.11
					8/11/20	154.37	4430.73
					2/2/21	155.00	4430.10
					7/12/21	155.61	4429.49

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-5M	909552	600445.071	3468994.282	4585.02	10/2/08	146.65	4438.37
					2/18/09	145.97	4439.05
					4/27/09	146.46	4438.56
					8/4/09	147.13	4437.89
					10/29/09	147.68	4437.34
					2/15/10	147.07	4437.95
					4/16/10	147.34	4437.68
					7/7/10	148.28	4436.74
					10/5/10	148.68	4436.34
					2/14/11	148.74	4436.28
					5/12/11	149.66	4435.36
					7/12/11	150.20	4434.82
					12/7/11	150.30	4434.72
					2/3/12	150.05	4434.97
					4/18/12	150.70	4434.32
					7/10/12	151.65	4433.37
					10/16/12	151.77	4433.25
					2/12/13	152.00	4433.02
					5/15/13	152.42	4432.60
					8/20/13	152.76	4432.26
					11/1/13	152.53	4432.49
					2/11/14	151.78	4433.24
					5/7/14	152.26	4432.76
					8/19/14	152.78	4432.24
					11/13/14	152.27	4432.75
					2/3/15	151.61	4433.41
					5/19/15	151.58	4433.44
					9/8/15	151.63	4433.39
					3/14/16	150.87	4434.15
					9/14/16	152.68	4432.34
					3/1/17	152.84	4432.18
					8/1/17	153.27	4431.75
					2/8/18	153.03	4431.99
					7/25/18	154.19	4430.83
					2/4/19	154.54	4430.48
					8/7/19	155.00	4430.02
					2/6/20	155.20	4429.82
					8/11/20	155.85	4429.17
					2/2/21	156.20	4428.82
					7/12/21	157.05	4427.97

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-6B	909146	600366.523	3469820.644	4627.44	7/16/08	190.13	4437.31
					11/4/08	190.23	4437.21
					2/19/09	189.71	4437.73
					4/27/09	189.99	4437.45
					8/4/09	190.80	4436.64
					10/26/09	191.04	4436.40
					2/15/10	190.82	4436.62
					4/15/10	190.75	4436.69
					7/1/10	191.43	4436.01
					10/5/10	192.50	4434.94
					2/14/11	192.19	4435.25
					5/12/11	192.70	4434.74
					7/12/11	193.30	4434.14
					12/7/11	193.85	4433.59
					2/3/12	193.60	4433.84
					4/18/12	193.90	4433.54
					7/10/12	194.75	4432.69
					10/16/12	195.71	4431.73
					2/12/13	195.42	4432.02
					5/15/13	195.91	4431.53
					8/20/13	196.23	4431.21
					11/1/13	195.77	4431.67
					2/11/14	195.24	4432.20
					5/7/14	195.47	4431.97
					8/19/14	196.36	4431.08
					11/13/14	195.74	4431.70
					2/3/15	195.12	4432.32
					5/19/15	195.00	4432.44
					9/8/15	195.48	4431.96
					10/21/15	195.37	4432.07
					3/14/16	195.00	4432.44
					9/14/16	196.36	4431.08
					3/1/17	196.33	4431.11
					7/10/17	196.88	4430.56
					2/8/18	197	4430.44
					7/10/18	197.57	4429.87
					2/4/19	197.89	4429.55
					8/6/19	198.57	4428.87
					2/3/20	198.70	4428.74
					7/22/20	199.04	4428.40
					2/2/21	199.74	4427.70
					7/12/21	200.29	4427.15

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-6M	909019	600367.943	3469813.885	4626.90	7/10/08	191.63	4435.27
					11/4/08	190.25	4436.65
					2/20/09	190.70	4436.20
					4/28/09	190.98	4435.92
					8/4/09	191.77	4435.13
					10/26/09	192.14	4434.76
					2/15/10	191.78	4435.12
					4/15/10	191.64	4435.26
					7/1/10	192.53	4434.37
					10/5/10	192.96	4433.94
					2/14/11	193.14	4433.76
					5/12/11	193.68	4433.22
					7/12/11	194.47	4432.43
					12/7/11	194.92	4431.98
					2/3/12	194.65	4432.25
					4/18/12	195.00	4431.90
					7/10/12	196.10	4430.80
					10/16/12	196.53	4430.37
					2/12/13	196.45	4430.45
					5/15/13	196.90	4430.00
					8/20/13	197.43	4429.47
					11/1/13	196.53	4430.37
					2/11/14	196.18	4430.72
					5/7/14	196.33	4430.57
					8/19/14	197.40	4429.50
					11/13/14	196.32	4430.58
					2/3/15	195.90	4431.00
					5/19/15	195.64	4431.26
					9/8/15	196.32	4430.58
					3/14/16	195.87	4431.03
					9/14/16	197.37	4429.53
					3/1/17	197.24	4429.66
					7/10/17	197.92	4428.98
					2/8/18	197.96	4428.94
					7/10/18	198.63	4428.27
					2/4/19	198.78	4428.12
					8/6/19	199.61	4427.29
					2/3/20	199.52	4427.38
					7/22/20	200.02	4426.88
					2/2/21	200.75	4426.15
					7/12/21	201.43	4425.47

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-7M	908794	603099.165	3470029.283	4688.33	7/14/08	238.31	4450.02
					11/6/08	239.69	4448.64
					2/18/09	238.90	4449.43
					5/11/09	239.03	4449.30
					8/6/09	239.17	4449.16
					10/27/09	239.55	4448.78
					2/17/10	239.98	4448.35
					4/15/10	240.13	4448.20
					7/6/10	240.28	4448.05
					2/14/11	241.26	4447.07
					7/15/11	241.81	4446.52
					1/30/12	242.44	4445.89
					7/11/12	243.0	4445.33
					2/15/13	243.8	4444.53
					8/28/13	244.32	4444.01
					2/13/14	244.31	4444.02
					7/22/14	244.66	4443.67
					2/5/15	243.91	4444.42
					9/14/15	244.59	4443.74
					3/16/16	244.91	4443.42
					8/18/16	245.23	4443.10
					3/7/17	245.44	4442.89
					7/10/17	245.73	4442.60
					2/1/18	245.82	4442.51
					7/23/18	246.18	4442.15
					2/11/19	246.46	4441.87
					8/8/19	246.80	4441.53
					2/18/20	247.28	4441.05
					7/23/20	247.68	4440.65
					3/17/21	248.40	4439.93
					8/2/21	248.81	4439.52
BMO-2008-8B	910097	604171.347	3471141.719	4753.25	12/5/08	297.94	4455.31
					2/19/09	297.63	4455.62
					5/5/09	297.37	4455.88
					8/10/09	297.53	4455.72
					11/9/09	297.85	4455.40
					3/3/10	298.37	4454.88
					4/16/10	298.46	4454.79
					7/1/10	298.64	4454.61
					2/11/11	299.56	4453.69
					5/13/11	299.78	4453.47
					7/15/11	300.00	4453.25
					1/30/12	300.52	4452.73
					7/12/12	301.15	4452.10
					2/13/13	302.05	4451.20
					8/12/13	302.48	4450.77
					7/24/14	301.86	4451.39
					2/5/15	299.56	4453.69
					9/15/15	300.14	4453.11
					3/16/16	300.76	4452.49
					9/15/16	301.26	4451.99
					3/7/17	301.61	4451.64
					7/10/17	301.89	4451.36
					2/1/18	301.83	4451.42
					7/23/18	302.83	4450.42
					2/11/19	302.84	4450.41
					8/8/19	303.42	4449.83
					2/18/20	304.19	4449.06
					7/23/20	304.74	4448.51
					3/17/21	305.47	4447.78
					8/2/21	306.10	4447.15

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-8M	909711	604167.912	3471127.902	4752.45	12/9/08	299.79	4452.66
					2/19/09	298.32	4454.13
					5/5/09	298.27	4454.18
					8/10/09	298.57	4453.88
					11/5/09	298.81	4453.64
					3/3/10	299.18	4453.27
					4/16/10	299.42	4453.03
					7/1/10	299.70	4452.75
					1/24/11	300.46	4451.99
					5/13/11	301.00	4451.45
					7/15/11	300.96	4451.49
					1/30/12	301.60	4450.85
					7/12/12	302.45	4450.00
					2/14/13	303.07	4449.38
					8/12/13	303.60	4448.85
					2/19/14	303.11	4449.34
					7/24/14	303.48	4448.97
					2/5/15	301.98	4450.47
					9/15/15	302.46	4449.99
					3/16/16	303.19	4449.26
					9/15/16	303.43	4449.02
					3/7/17	303.85	4448.60
					7/10/17	304.09	4448.36
					2/1/18	303.94	4448.51
					7/23/18	304.20	4448.25
					2/11/19	304.09	4448.36
					8/8/19	304.8	4447.65
					2/18/20	304.90	4447.55
					7/23/20	305.42	4447.03
					3/17/21	306.51	4445.94
					8/2/21	302.32	4450.13
BMO-2008-9M	909255	604668.669	3471121.675	4762.61	8/8/08	287.17	4475.44
					11/5/08	287.65	4474.96
					2/26/09	285.65	4476.96
					5/12/09	285.28	4477.33
					8/17/09	286.09	4476.52
					11/3/09	286.55	4476.06
					3/4/10	287.45	4475.16
					4/6/10	287.81	4474.80
					7/1/10	288.26	4474.35
					2/10/11	289.77	4472.84
					5/13/11	290.47	4472.14
					7/15/11	290.95	4471.66
					2/1/12	293.44	4469.17
					7/12/12	294.65	4467.96
					2/13/13	296.67	4465.94
					8/12/13	297.63	4464.98
					2/18/14	293.68	4468.93
					7/24/14	293.53	4469.08
					2/5/15	286.01	4476.60
					9/14/15	286.34	4476.27
					3/16/16	287.22	4475.39
					9/15/16	289.35	4473.26
					3/7/17	289.83	4472.78
					7/11/17	291.03	4471.58
					2/1/18	289.66	4472.95
					7/26/18	291.78	4470.83
					2/11/19	291.42	4471.19
					8/12/19	292.67	4469.94
					2/20/20	290.43	4472.18
					7/20/20	288.57	4474.04
					3/17/21	291.21	4471.40
					8/18/21	293.59	4469.02

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-10GL	909435	605264.072	3471702.043	4792.21	8/20/08	521.75	4270.46
					11/5/08	520.50	4271.71
					2/25/09	516.72	4275.49
					5/12/09	514.68	4277.53
					8/11/09	513.23	4278.98
					11/2/09	509.43	4282.78
					3/4/10	510.88	4281.33
					4/8/10	506.31	4285.90
					7/2/10	511.80	4280.41
					7/13/11	512.16	4280.05
					2/2/12	511.34	4280.87
					7/13/12	510.90	4281.31
					2/18/13	509.91	4282.30
					8/13/13	509.32	4282.89
					8/7/14	507.21	4285.00
					2/10/15	463.22	4328.99
					9/14/15	439.93	4352.28
					3/16/16	364.33	4427.88
					8/17/16	337.26	4454.95
					3/7/17	332.86	4459.35
					7/11/17	337.89	4454.32
					2/1/18	337.84	4454.37
					7/26/18	333.28	4458.93
					1/28/19	326.80	4465.41
					8/1/19	316.92	4475.29
					2/17/20	324.94	4467.27
					7/20/20	298.10	4494.11
					3/16/21	260.36	4531.85
					8/17/21	262.84	4529.37
BMO-2008-10GU	909272	605267.551	3471731.866	4793.45	8/4/08	299.28	4494.17
					11/5/08	295.89	4497.56
					2/25/09	289.84	4503.61
					5/6/09	289.35	4504.10
					8/11/09	289.09	4504.36
					11/2/09	289.77	4503.68
					3/10/10	289.58	4503.87
					4/7/10	289.5	4503.95
					7/6/10	288.93	4504.52
					7/13/11	301.02	4492.43
					2/1/12	326.51	4466.94
					7/13/12	328.7	4464.75
					8/19/13	283.97	4509.48
					2/10/15	207.58	4585.87
					9/14/15	200.36	4593.09
					3/16/16	195.53	4597.92
					8/17/16	201.47	4591.98
					3/7/17	210.83	4582.62
					8/9/17	201.50	4591.95
					2/1/18	201.09	4592.36
					7/26/18	200.53	4592.92
					1/28/19	201.56	4591.89
					8/1/19	200.43	4593.02
					2/17/20	201.74	4591.71
					7/20/20	196.63	4596.82
					3/16/21	192.68	4600.77
					8/17/21	197.91	4595.54

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-11G	909434	603800.995	3472626.482	4844.67	8/22/08	577.76	4266.91
					11/12/08	576.80	4267.87
					2/26/09	575.91	4268.76
					4/8/09	575.46	4269.21
					8/12/09	574.84	4269.83
					11/9/09	573.41	4271.26
					3/1/10	573.68	4270.99
					4/9/10	573.56	4271.11
					7/1/10	572.97	4271.70
					2/10/11	571.61	4273.06
					7/22/11	571.20	4273.47
					1/31/12	569.83	4274.84
					8/14/12	569.70	4274.97
					2/13/13	568.75	4275.92
					8/27/13	566.50	4278.17
					2/19/14	564.68	4279.99
					8/14/14	564.24	4280.43
					2/5/15	560.60	4284.07
					9/14/15	557.84	4286.83
					3/15/16	556.04	4288.63
					8/17/16	554.94	4289.73
					3/2/17	554.27	4290.40
					7/11/17	554.02	4290.65
					2/12/18	552.11	4292.56
					7/12/18	552.20	4292.47
					1/28/19	550.72	4293.95
					8/6/19	550.89	4293.78
					2/4/20	548.35	4296.32
					8/13/20	546.77	4297.90
					2/3/21	546.25	4298.42
					7/22/21	546.07	4298.60
BMO-2008-13B	909551	601657.612	3470076.358	4649.21	10/3/08	206.42	4442.79
					2/17/09	206.11	4443.10
					5/6/09	206.32	4442.89
					8/5/09	206.79	4442.42
					10/28/09	207.08	4442.13
					2/16/10	207.26	4441.95
					4/14/10	207.27	4441.94
					7/6/10	207.68	4441.53
					2/10/11	208.51	4440.70
					5/13/11	208.95	4440.26
					7/15/11	209.36	4439.85
					2/9/12	209.78	4439.43
					7/11/12	210.60	4438.61
					2/27/13	211.40	4437.81
					9/4/13	212.15	4437.06
					8/19/14	212.68	4436.53
					2/4/15	212.28	4436.93
					9/15/15	212.37	4436.84
					3/16/16	211.95	4437.26
					9/21/16	212.84	4436.37
					3/7/17	213.15	4436.06
					8/2/17	213.57	4435.64
					2/1/18	213.6	4435.61
					8/6/18	214.22	4434.99
					2/11/19	214.79	4434.42
					8/20/19	215.16	4434.05
					2/20/20	215.46	4433.75
					8/5/20	215.70	4433.51
					3/15/21	216.27	4432.94
					8/16/21	216.85	4432.36

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-13M	909760	601650.495	3470040.455	4647.15	12/3/08	206.00	4441.15
					2/17/09	208.74	4438.41
					4/29/09	208.53	4438.62
					8/5/09	208.85	4438.30
					10/28/09	208.91	4438.24
					2/16/10	209.16	4437.99
					4/13/10	209.20	4437.95
					7/2/10	209.30	4437.85
					2/10/11	210.36	4436.79
					5/13/11	210.50	4436.65
					7/15/11	210.67	4436.48
					2/6/12	210.90	4436.25
					8/13/12	211.42	4435.73
					2/15/13	212.13	4435.02
					9/6/13	212.52	4434.63
					8/20/14	213.14	4434.01
					2/4/15	212.97	4434.18
					9/15/15	212.91	4434.24
					3/16/16	212.76	4434.39
					9/21/16	213.22	4433.93
					3/7/17	213.6	4433.55
					8/15/17	213.71	4433.44
					2/1/18	214.09	4433.06
					8/6/18	214.37	4432.78
					2/11/19	214.57	4432.58
					8/20/19	215.1	4432.05
					2/20/20	215.46	4431.69
					8/5/20	215.73	4431.42
					3/15/21	216.14	4431.01
					8/16/21	216.39	4430.76
BMO-2010-1M	219957	605581.263	3469935.750	4718.55	9/7/10	224.13	4494.42
					11/10/10	222.97	4495.58
					2/11/11	222.01	4496.54
					5/12/11	223.08	4495.47
					8/31/11	224.38	4494.17
					12/13/11	222.86	4495.69
					2/8/12	222.97	4495.58
					4/24/12	223.87	4494.68
					7/9/12	225.05	4493.50
					10/17/12	225.63	4492.92
					2/13/13	226.85	4491.70
					5/8/13	227.45	4491.10
					8/15/13	228.10	4490.45
					11/4/13	224.41	4494.14
					2/12/14	222.90	4495.65
					6/2/14	222.80	4495.75
					8/4/14	223.14	4495.41
					11/12/14	219.47	4499.08
					2/5/15	214.19	4504.36
					9/9/15	211.68	4506.87
					3/16/16	210.91	4507.64
					8/25/16	212.23	4506.32
					3/7/17	212.69	4505.86
					7/12/17	214.02	4504.53
					2/1/18	213.31	4505.24
					8/7/18	214.94	4503.61
					2/11/19	213.87	4504.68
					7/30/19	214.78	4503.77
					2/5/20	213.19	4505.36
					7/20/20	211.73	4506.82
					2/2/21	212.26	4506.29
					7/15/21	214.84	4503.71

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-2M	219958	605685.549	3470564.646	4746.16	9/7/10	264.13	4482.03
					11/11/10	263.94	4482.22
					2/10/11	264.13	4482.03
					5/13/11	266.97	4479.19
					7/14/11	268.05	4478.11
					12/13/11	270.98	4475.18
					1/30/12	271.50	4474.66
					4/18/12	272.31	4473.85
					7/9/12	273.20	4472.96
					10/17/12	274.27	4471.89
					2/13/13	275.52	4470.64
					5/8/13	276.05	4470.11
					8/15/13	278.76	4467.40
					11/4/13	273.26	4472.90
					2/12/14	271.44	4474.72
					5/8/14	270.65	4475.51
					8/14/14	270.78	4475.38
					11/12/14	263.19	4482.97
					2/5/15	259.84	4486.32
					9/14/15	260.92	4485.24
					3/16/16	261.81	4484.35
					9/13/16	264.66	4481.50
					3/7/17	265.47	4480.69
					7/12/17	267.14	4479.02
					2/1/18	266.24	4479.92
					8/7/18	268.92	4477.24
					2/11/19	268.25	4477.91
					7/30/19	269.21	4476.95
					2/20/20	265.12	4481.04
					7/21/20	262.38	4483.78
					2/2/21	265.71	4480.45
					7/15/21	268.91	4477.25

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-3B	219970	599977.962	3468347.363	4550.59	7/28/10	115.38	4435.21
					11/10/10	115.80	4434.79
					1/20/11	115.46	4435.13
					4/7/11	116.11	4434.48
					7/13/11	117.30	4433.29
					10/13/11	117.72	4432.87
					2/2/12	117.18	4433.41
					4/24/12	117.92	4432.67
					7/5/12	118.84	4431.75
					10/18/12	119.13	4431.46
					1/16/13	118.89	4431.70
					4/16/13	119.36	4431.23
					7/23/13	120.02	4430.57
					10/8/13	119.63	4430.96
					1/15/14	118.96	4431.63
					5/13/14	119.40	4431.19
					7/15/14	120.06	4430.53
					10/14/14	119.16	4431.43
					1/28/15	118.46	4432.13
					5/18/15	118.49	4432.10
					7/22/15	118.81	4431.78
					10/6/15	118.06	4432.53
					2/2/16	117.39	4433.20
					7/12/16	119.21	4431.38
					1/18/17	119.89	4430.70
					7/11/17	120.51	4430.08
					1/8/18	119.84	4430.75
					7/10/18	121.45	4429.14
					1/8/19	121.92	4428.67
					7/16/19	122.49	4428.10
					1/6/20	122.64	4427.95
					8/4/20	123.25	4427.34
					1/5/21	123.76	4426.83
					7/13/21	124.56	4426.03

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-3M	219969	599970.801	3468353.543	4550.53	7/30/10	118.63	4431.90
					11/10/10	118.75	4431.78
					1/20/11	118.32	4432.21
					4/7/11	119.09	4431.44
					8/25/11	120.74	4429.79
					10/13/11	120.67	4429.86
					2/2/12	119.91	4430.62
					4/24/12	120.93	4429.60
					7/5/12	122.05	4428.48
					10/18/12	122.06	4428.47
					1/16/13	121.86	4428.67
					4/16/13	122.26	4428.27
					7/23/13	122.97	4427.56
					10/8/13	121.91	4428.62
					1/15/14	120.91	4429.62
					5/13/14	121.90	4428.63
					7/15/14	121.92	4428.61
					10/14/14	121.87	4428.66
					1/28/15	120.63	4429.90
					5/18/15	120.48	4430.05
					7/22/15	120.42	4430.11
					10/6/15	119.44	4431.09
					2/2/16	118.65	4431.88
					7/12/16	121.56	4428.97
					1/18/17	122.27	4428.26
					7/11/17	122.85	4427.68
					1/8/18	121.24	4429.29
					7/10/18	124.08	4426.45
					1/8/19	123.97	4426.56
					7/16/19	124.81	4425.72
					1/6/20	124.82	4425.71
					8/4/20	125.96	4424.57
					1/5/21	125.98	4424.55
					7/13/21	127.39	4423.14
BMO-2012-1M	221388	606097.384	3469746.747	4719.76	11/13/12	231.90	4487.86
					2/27/13	233.20	4486.56
					5/8/13	233.97	4485.79
					8/14/13	233.96	4485.80
					11/1/13	230.44	4489.32
					2/13/14	229.85	4489.91
					5/8/14	229.89	4489.87
					7/22/14	229.94	4489.82
					11/13/14	225.37	4494.39
					2/4/15	222.57	4497.19
					9/10/15	221.60	4498.16
					3/3/16	214.86	4504.90
					8/17/16	215.57	4504.19
					3/2/17	216.10	4503.66
					7/24/17	217.59	4502.17
					8/21/17	217.55	4502.21
					2/13/18	217.58	4502.18
					7/16/18	219.60	4500.16
					1/29/19	218.63	4501.13
					7/31/19	220.01	4499.75
					2/4/20	218.70	4501.06
					7/21/20	216.17	4503.59
					2/2/21	216.78	4502.98
					7/14/21	218.46	4501.30

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-1BL	917394	600563.194	3468234.798	4557.18	11/7/14	123.03	4434.15
				4558.45	1/29/15	123.53	4434.92
					4/15/15	123.45	4435.00
					5/18/15	123.93	4434.52
					7/29/15	124.22	4434.23
					10/7/15	123.58	4434.87
					2/4/16	123.17	4435.28
					4/6/16	123.61	4434.84
					7/14/16	124.85	4433.60
					11/2/16	124.93	4433.52
					1/24/17	124.57	4433.88
					7/13/17	126.19	4432.26
					1/10/18	125.47	4432.98
					7/12/18	127.11	4431.34
					1/10/19	126.62	4431.83
					7/18/19	127.19	4431.26
					1/8/20	127.10	4431.35
					8/6/20	127.50	4430.95
					1/7/21	128.23	4430.22
					3/9/21	128.36	4430.09
					7/15/21	128.88	4429.57
BMO-2014-1BU	917393	600570.805	3468231.440	4557.18	11/13/14	123.51	4433.67
				4558.54	1/28/15	123.74	4434.80
					4/15/15	123.90	4434.64
					5/18/15	124.42	4434.12
					7/29/15	124.65	4433.89
					10/7/15	123.97	4434.57
					2/4/16	123.43	4435.11
					4/6/16	123.90	4434.64
					7/14/16	125.23	4433.31
					11/2/16	125.32	4433.22
					1/24/17	124.86	4433.68
					7/13/17	126.42	4432.12
					1/10/18	125.73	4432.81
					7/12/18	127.19	4431.35
					1/10/19	126.86	4431.68
					7/18/19	127.48	4431.06
					1/8/20	127.39	4431.15
					8/6/20	127.73	4430.81
					1/7/21	128.49	4430.05
					7/15/21	129.12	4429.42
BMO-2014-2BL	917452	600784.872	3468183.921	4560.31	11/20/14	126.15	4434.16
				4561.80	1/29/15	126.74	4435.06
					4/15/15	126.70	4435.10
					5/18/15	127.18	4434.62
					7/29/15	127.43	4434.37
					10/7/15	126.90	4434.90
					2/4/16	126.68	4435.12
					4/6/16	126.77	4435.03
					7/14/16	127.85	4433.95
					11/2/16	128.39	4433.41
					1/24/17	127.73	4434.07
					9/6/17	128.56	4433.24
					1/10/18	129.09	4432.71
					7/12/18	129.61	4432.19
					1/10/19	129.96	4431.84
					7/18/19	130.42	4431.38
					1/8/20	130.43	4431.37
					8/6/20	130.73	4431.07
					1/7/21	131.50	4430.30
					7/15/21	132.10	4429.70

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-2BU	917453	600788.520	3468192.762	4560.31	12/1/14	126.73	4433.58
				4561.85	1/30/15	126.73	4435.12
					4/15/15	126.65	4435.20
					5/18/15	127.21	4434.64
					7/29/15	127.49	4434.36
					10/7/15	126.94	4434.91
					2/4/16	126.56	4435.29
					4/6/16	126.81	4435.04
					7/14/16	127.93	4433.92
					11/2/16	128.37	4433.48
					1/24/17	127.75	4434.10
					7/13/17	129.07	4432.78
					1/10/18	129.01	4432.84
					7/12/18	129.67	4432.18
					1/10/19	129.99	4431.86
					7/18/19	130.46	4431.39
					1/8/20	130.35	4431.50
					8/6/20	130.75	4431.10
					1/7/21	131.51	4430.34
					7/15/21	132.12	4429.73
BMO-2014-3BL	917527	600822.399	3467786.416	4572.213	2/13/15	136.57	4435.64
				4573.765	4/15/15	138.35	4435.42
					5/18/15	138.64	4435.13
					7/29/15	138.86	4434.91
					10/7/15	138.51	4435.26
					2/4/16	138.14	4435.63
					4/6/16	138.39	4435.38
					7/14/16	139.44	4434.33
					11/2/16	139.66	4434.11
					1/25/17	139.54	4434.23
					7/13/17	140.74	4433.03
					1/11/18	140.48	4433.29
					1/12/18	140.56	4433.21
					7/12/18	141.74	4432.03
					1/10/19	142.01	4431.76
					7/18/19	142.49	4431.28
					1/9/20	142.76	4431.01
					8/6/20	142.99	4430.78
					1/7/21	143.90	4429.87
					7/15/21	144.45	4429.32
BMO-2014-3BU	917494	600810.534	3467787.733	4572.213	2/24/15	137.91	4434.30
				4574.887	4/15/15	139.45	4435.44
					5/18/15	139.74	4435.15
					7/29/15	140.03	4434.86
					10/7/15	139.64	4435.25
					2/4/16	139.20	4435.69
					4/6/16	139.48	4435.41
					7/14/16	140.55	4434.34
					11/2/16	140.83	4434.06
					1/25/17	140.66	4434.23
					7/13/17	140.80	4434.09
					1/11/18	141.50	4433.39
					1/12/18	141.52	4433.37
					7/12/18	141.65	4433.24
					1/10/19	143.12	4431.77
					7/18/19	143.56	4431.33
					1/9/20	143.84	4431.05
					8/6/20	144.08	4430.81
					1/7/21	144.99	4429.90
					7/15/21	145.56	4429.33

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-4B	917620	600508.792	3468581.267	4566.453	3/4/15	132.43	4434.02
				4567.672	4/14/15	133.60	4434.07
					5/18/15	133.85	4433.82
					7/23/15	134.27	4433.40
					10/6/15	133.74	4433.93
					2/3/16	133.04	4434.63
					4/5/16	133.25	4434.42
					7/13/16	134.64	4433.03
					11/1/16	134.87	4432.80
					1/23/17	134.41	4433.26
					7/12/17	135.68	4431.99
					1/9/18	135.05	4432.62
					7/11/18	136.51	4431.16
					1/9/19	136.53	4431.14
					7/17/19	137.00	4430.67
					1/7/20	137.04	4430.63
					8/5/20	137.37	4430.30
					1/6/21	138.09	4429.58
					7/14/21	138.73	4428.94
BMO-2014-4BL	917619	600498.091	3468566.229	4566.453	3/1/15	131.89	4434.56
				4567.045	4/14/15	132.95	4434.10
					5/18/15	133.23	4433.82
					7/23/15	133.67	4433.38
					10/6/15	133.16	4433.89
					2/3/16	132.43	4434.62
					4/5/16	132.67	4434.38
					8/25/16	133.82	4433.23
					11/1/16	134.30	4432.75
					1/23/17	133.85	4433.20
					7/12/17	135.10	4431.95
					1/9/18	134.47	4432.58
					7/11/18	136.07	4430.98
					1/9/19	135.95	4431.10
					7/17/19	136.44	4430.61
					1/7/20	136.46	4430.59
					8/5/20	136.86	4430.19
					1/6/21	137.55	4429.50
					7/14/21	138.15	4428.90
BMO-2015-1B	917622	600261.991	3468563.389	4561.382	3/15/15	128.05	4433.33
				4562.063	4/14/15	129.10	4432.96
					5/18/15	129.24	4432.82
					7/23/15	129.62	4432.44
					10/6/15	129.02	4433.04
					2/3/16	128.41	4433.65
					4/5/16	128.45	4433.61
					8/25/16	130.05	4432.01
					11/1/16	130.38	4431.68
					1/23/17	130.28	4431.78
					7/12/17	131.14	4430.92
					1/9/18	130.50	4431.56
					7/11/18	131.87	4430.19
					1/9/19	132.24	4429.82
					7/17/19	132.79	4429.27
					1/7/20	132.91	4429.15
					8/5/20	133.35	4428.71
					1/6/21	133.95	4428.11
					7/14/21	134.63	4427.43

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2015-1BL	917621	600272.479	3468583.092	4561.382	3/12/15	129.10	4432.28
				4563.402	4/14/15	130.45	4432.95
					5/18/15	130.59	4432.81
					7/23/15	130.98	4432.42
					10/6/15	130.30	4433.10
					2/3/16	129.75	4433.65
					4/5/16	129.81	4433.59
					7/13/16	131.31	4432.09
					11/1/16	131.66	4431.74
					1/23/17	131.58	4431.82
					7/12/17	132.46	4430.94
					1/9/18	131.79	4431.61
					7/11/18	133.21	4430.19
					1/9/19	133.52	4429.88
					7/17/19	134.09	4429.31
					1/7/20	134.18	4429.22
					8/5/20	134.62	4428.78
					1/6/21	135.25	4428.15
					3/9/21	135.21	4428.19
					7/14/21	135.90	4427.50
BMO-2015-2B	917827	600267.799	3468996.635	4579.624	3/19/15	147.17	4432.45
				4582.082	4/14/15	149.05	4433.03
					5/18/15	149.18	4432.90
					7/23/15	149.47	4432.61
					10/6/15	148.94	4433.14
					2/3/16	148.45	4433.63
					4/5/16	148.37	4433.71
					7/13/16	149.88	4432.20
					11/1/16	150.30	4431.78
					1/23/17	150.12	4431.96
					7/12/17	150.99	4431.09
					1/9/18	150.43	4431.65
					7/11/18	151.72	4430.36
					1/9/19	152.10	4429.98
					7/17/19	152.71	4429.37
					1/7/20	152.82	4429.26
					8/5/20	153.31	4428.77
					1/6/21	153.83	4428.25
					7/14/21	154.56	4427.52
BMO-2015-2BL	917828	600252.069	3468983.910	4579.624	3/26/15	146.43	4433.19
				4580.644	4/14/15	147.60	4433.04
					5/18/15	147.82	4432.82
					7/23/15	148.12	4432.52
					10/6/15	147.56	4433.08
					2/3/16	147.06	4433.58
					4/5/16	146.99	4433.65
					7/13/16	148.52	4432.12
					11/1/16	149.00	4431.64
					1/23/17	148.80	4431.84
					7/12/17	149.64	4431.00
					1/9/18	149.09	4431.55
					7/11/18	150.39	4430.25
					1/9/19	150.76	4429.88
					7/17/19	151.37	4429.27
					1/7/20	151.49	4429.15
					8/5/20	151.95	4428.69
					1/6/21	152.54	4428.10
					7/14/21	153.24	4427.40
BOOTH	914931	601132.466	3468049.945	4568.21	1/15/13	131.47	4436.74
					4/19/13	132.04	4436.17
					10/18/13	132.56	4435.65

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BURKE	212268	602230.087	3473029.816	4856.30	4/22/08	606.55	4249.75
					8/5/08	605.86	4250.44
					10/28/08	604.88	4251.42
					2/19/09	603.91	4252.39
					4/28/09	603.70	4252.60
					8/19/09	602.66	4253.64
					10/10/13	601.06	4255.24
					1/8/14	592.90	4263.40
					4/16/14	592.51	4263.79
					7/21/14	592.35	4263.95
					10/21/14	594.68	4261.62
					8/3/15	587.06	4269.24
COB MW-1	903992	603153.259	3469889.889	4683.26	2/22/08	232.47	4450.79
					5/20/08	233.12	4450.14
					7/30/08	233.37	4449.89
					10/23/08	233.62	4449.64
					2/12/09	234.05	4449.21
					4/21/09	234.99	4448.27
					7/22/09	234.34	4448.92
					10/22/09	234.69	4448.57
					2/4/10	235.15	4448.11
					4/20/10	235.47	4447.79
					7/13/10	235.68	4447.58
					7/14/11	236.98	4446.28
					7/12/12	238.24	4445.02
					2/5/13	239.11	4444.15
					7/11/13	239.67	4443.59
					7/9/14	240.03	4443.23
					2/4/15	239.46	4443.80
					7/27/15	239.83	4443.43
COB MW-1B	225906	603153.259 [2]	3469889.889 [2]	4683.26 [2]	7/20/16	240.06	4443.20
					1/19/17	239.90	4443.36
					7/19/17	240.27	4442.99

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COB MW-2	903984	600973.257	3468114.836	4566.21	2/22/08	122.85	4443.36
					5/20/08	123.00	4443.21
					7/30/08	123.53	4442.68
					10/23/08	124.02	4442.19
					2/12/09	123.39	4442.82
					4/23/09	124.16	4442.05
					7/22/09	124.91	4441.30
					10/22/09	125.33	4440.88
					3/3/10	124.93	4441.28
					4/26/10	125.47	4440.74
					7/13/10	126.54	4439.67
					1/20/11	126.46	4439.75
					7/14/11	128.17	4438.04
					1/31/12	128.04	4438.17
					7/12/12	129.58	4436.63
					1/9/13	129.28	4436.93
					7/25/13	130.21	4436.00
					1/6/14	130.11	4436.10
					7/9/14	131.32	4434.89
					2/4/15	126.60	4439.61
					5/28/15	130.39	4435.82
					7/27/15	130.32	4435.89
					10/7/15	129.96	4436.25
					1/11/16	129.56	4436.65
					7/20/16	130.90	4435.31
					1/19/17	130.99	4435.22
					7/19/17	131.90	4434.31
					1/11/18	131.72	4434.49
					7/17/18	132.56	4433.65
					1/15/19	133.13	4433.08
					7/24/19	133.54	4432.67
					1/14/20	133.82	4432.39
					8/11/20	134.02	4432.19
					1/12/21	134.86	4431.35
					7/21/21	135.43	4430.78

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COB MW-3	906823	599169.225	3468726.000	4538.63	2/28/08	120.84	4417.79
					5/20/08	125.00	4413.63
					7/30/08	118.50	4420.13
					10/23/08	117.93	4420.70
					2/12/09	110.91	4427.72
					4/23/09	125.13	4413.50
					7/22/09	124.09	4414.54
					10/22/09	118.03	4420.60
					3/3/10	120.14	4418.49
					4/26/10	123.12	4415.51
					7/13/10	128.60	4410.03
					7/14/11	132.41	4406.22
					7/12/12	133.89	4404.74
					2/5/13	123.68	4414.95
					7/25/13	129.05	4409.58
					1/6/14	127.52	4411.11
					7/9/14	124.19	4414.44
					2/4/15	115.11	4423.52
					7/27/15	118.39	4420.24
					10/7/15	114.37	4424.26
					1/11/16	112.93	4425.70
					7/20/16	120.25	4418.38
					1/27/17	126.14	4412.49
					7/19/17	120.70	4417.93
					1/11/18	116.02	4422.61
					7/17/18	125.77	4412.86
					1/15/19	125.53	4413.10
					7/24/19	127.73	4410.90
					1/14/20	123.27	4415.36
					8/11/20	137.35	4401.28
					1/12/21	134.66	4403.97
					7/21/21	136.83	4401.80
COB WL	593116	606357.506	3472502.012	4832.06	2/22/08	56.50	4775.56
					5/20/08	57.50	4774.56
					7/30/08	58.64	4773.42
					10/23/08	58.76	4773.30
					2/12/09	58.89	4773.17
					4/23/09	59.73	4772.33
					7/22/09	61.27	4770.79
					10/22/09	62.82	4769.24
					3/3/10	65.24	4766.82
					4/26/10	66.13	4765.93
					7/13/10	67.52	4764.54
					7/14/11	73.86	4758.20
					7/12/12	78.85	4753.21
					2/5/13	82.41	4749.65
					7/25/13	81.36	4750.70
					7/9/14	78.12	4753.94
					2/4/15	58.14	4773.92
					7/27/15	80.09	4751.97
					1/11/16	81.72	4750.34
					7/20/16	84.80	4747.26
					1/25/17	87.06	4745.00
					7/14/17	89.96	4742.10
					1/11/18	89.87	4742.19
					7/9/18	91.48	4740.58
					1/7/19	91.73	4740.33
					7/15/19	92.89	4739.17
					1/7/20	93.72	4738.34
					8/4/20	94.79	4737.27
					1/6/21	95.93	4736.13
					7/12/21	97.54	4734.52

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COLLINS	565260	602551.286	3471341.335	4733.72	2/12/08	289.47	4444.25
					5/29/08	288.53	4445.19
					7/31/08	290.08	4443.64
					10/20/08	290.15	4443.57
					4/21/09	290.66	4443.06
					7/20/09	290.78	4442.94
					10/20/09	290.52	4443.20
					2/2/10	291.64	4442.08
					4/23/10	291.96	4441.76
					7/20/10	292.21	4441.51
COOPER 988	232988	602200.984	3471719.987	4748.95	7/16/21	326.57	4422.38
COOPER C	637069	601349.987	3468913.011	4599.14	3/4/08	155.08	4444.06
					5/5/08	155.34	4443.80
					7/15/08	156.01	4443.13
					10/16/08	155.85	4443.29
					1/27/09	155.62	4443.52
					4/14/09	155.86	4443.28
					7/14/09	156.50	4442.64
					10/12/09	156.89	4442.25
					1/27/10	157.03	4442.11
					4/22/10	157.31	4441.83
					7/21/10	158.00	4441.14
					10/20/10	158.41	4440.73
					1/17/11	158.37	4440.77
					4/11/11	158.74	4440.40
					8/26/11	159.51	4439.63
					10/13/11	159.81	4439.33
					2/1/12	159.80	4439.34
					4/25/12	160.26	4438.88
					7/12/12	160.88	4438.26
					10/10/12	161.10	4438.04
					2/27/13	161.40	4437.74
					5/8/13	161.70	4437.44
					8/13/13	162.07	4437.07
					11/1/13	162.23	4436.91
					2/10/14	161.90	4437.24
					5/7/14	162.63	4436.51
					7/21/14	162.67	4436.47
					11/13/14	162.48	4436.66
					5/19/15	162.14	4437.00
					9/10/15	162.14	4437.00
					10/21/15	162.17	4436.97
					3/16/16	161.76	4437.38
					8/18/16	162.78	4436.36
					7/13/17	162.68	4436.46
					2/5/18	163.66	4435.48
					7/25/18	164.42	4434.72
					1/28/19	164.72	4434.42
					8/19/19	165.43	4433.71
					8/17/20	165.98	4433.16
					3/15/21	166.65	4432.49
					7/27/21	167.22	4431.92

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
DODSON	644927	605594.560	3469063.772	4686.34	5/12/08	81.38	4604.96
					7/24/08	82.20	4604.14
					10/13/08	81.82	4604.52
					1/22/09	82.33	4604.01
					4/9/09	82.84	4603.50
					7/8/09	86.88	4599.46
					10/6/09	87.27	4599.07
					1/21/10	88.54	4597.80
					4/19/10	89.53	4596.81
					7/20/10	90.79	4595.55
					10/18/10	90.33	4596.01
					1/19/11	90.34	4596.00
					4/5/11	91.05	4595.29
					7/12/11	92.07	4594.27
					10/10/11	93.11	4593.23
					1/31/12	93.68	4592.66
					4/12/12	94.19	4592.15
					10/4/12	97.80	4588.54
					1/18/13	99.73	4586.61
					4/9/13	98.09	4588.25
					7/9/13	98.38	4587.96
					10/9/13	92.69	4593.65
					1/9/14	93.21	4593.13
					4/15/14	94.64	4591.70
					7/14/14	95.43	4590.91
					10/16/14	97.22	4589.12
					1/26/15	95.81	4590.53
					7/23/15	97.32	4589.02
					1/12/16	99.34	4587.00
					7/18/16	103.91	4582.43
					7/17/17	103.07	4583.27
					1/17/18	101.44	4584.90
					7/30/18	117.18	4569.16
					1/15/19	105.08	4581.26
					7/9/19	104.16	4582.18
					1/15/20	101.82	4584.52
					8/13/20	99.10	4587.24
					1/11/21	99.72	4586.62
					7/21/21	101.04	4585.30

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
DOUGLASS 791	592791	607632.993	3470222.677	4703.27	2/13/08	22.11	4681.16
					5/13/08	24.60	4678.67
					7/22/08	27.00	4676.27
					10/16/08	23.60	4679.67
					1/19/09	26.51	4676.76
					4/8/09	28.53	4674.74
					7/7/09	31.04	4672.23
					10/5/09	31.49	4671.78
					1/21/10	34.55	4668.72
					4/19/10	36.40	4666.87
					7/12/10	36.74	4666.53
					1/18/11	25.96	4677.31
					1/30/12	27.72	4675.55
					4/11/12	29.99	4673.28
					7/5/12	32.67	4670.60
					1/9/13	27.24	4676.03
					7/8/13	32.70	4670.57
					1/6/14	23.56	4679.71
					7/7/14	28.22	4675.05
					7/20/15	30.86	4672.41
					7/11/16	32.09	4671.18
					7/13/17	31.58	4671.69
					8/1/18	36.48	4666.79
					7/11/19	27.35	4675.92
					8/14/20	27.69	4675.58
					7/19/21	32.38	4670.89
DOUGLASS 792	592792	607607.541	3469829.115	4681.73	2/13/08	87.76	4593.97
					5/13/08	87.21	4594.52
					7/22/08	86.90	4594.83
					10/16/08	86.45	4595.28
					1/20/09	86.26	4595.47
					4/8/09	86.04	4595.69
					7/7/09	86.16	4595.57
					10/5/09	86.19	4595.54
					1/21/10	86.45	4595.28
					4/19/10	87.19	4594.54
					7/12/10	87.55	4594.18
					1/18/11	87.8	4593.93
					7/12/11	88.38	4593.35
					1/30/12	88.92	4592.81
					4/11/12	89.18	4592.55
					7/5/12	95.64	4586.09
					1/9/13	82.60	4599.13
					7/8/13	83.66	4598.07
					1/6/14	83.55	4598.18
					7/7/14	82.43	4599.30
					7/20/15	82.57	4599.16
					7/11/16	83.48	4598.25
					7/13/17	84.43	4597.30
					8/1/18	85.76	4595.97
					7/11/19	85.39	4596.34
					8/14/20	85.28	4596.45
					7/19/21	86.15	4595.58

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
EAST	599796	607076.365	3468712.215	4626.01	2/8/08	50.20	4575.81
					5/14/08	52.45	4573.56
					7/23/08	52.16	4573.85
					10/14/08	52.19	4573.82
					1/20/09	50.52	4575.49
					4/8/09	51.91	4574.10
					7/13/09	56.93	4569.08
					10/8/09	60.95	4565.06
					1/25/10	59.35	4566.66
					4/21/10	58.88	4567.13
					7/14/10	61.86	4564.15
					10/20/10	61.20	4564.81
					1/18/11	59.79	4566.22
					4/5/11	59.73	4566.28
					7/12/11	63.79	4562.22
					10/12/11	63.64	4562.37
					1/31/12	63.82	4562.19
					4/11/12	65.72	4560.29
					7/9/12	70.50	4555.51
					10/4/12	73.34	4552.67
					1/17/13	75.04	4550.97
					4/9/13	78.05	4547.96
					7/9/13	78.37	4547.64
					10/15/13	72.38	4553.63
					1/14/14	71.88	4554.13
					4/8/14	71.03	4554.98
					7/8/14	72.03	4553.98
					10/22/14	67.75	4558.26
					7/24/15	74.64	4551.37
					7/12/16	65.02	4560.99
					7/27/17	67.11	4558.90
					7/30/18	77.95	4548.06
					7/17/19	79.28	4546.73
					8/13/20	77.26	4548.75
					7/23/21	78.88	4547.13
ECHAVE	219449	599701	3470168	4648	2/1/12	216.71	4431.29
					1/18/13	218.41	4429.59
					7/28/17	220.49	4427.51
					2/23/18	219.94	4428.06
					7/17/18	220.37	4427.63
					1/15/19	220.49	4427.51
					7/23/19	220.93	4427.07
					1/21/20	221.16	4426.84
					8/10/20	221.50	4426.50
					1/5/21	222.04	4425.96
					7/21/21	222.59	4425.41

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
EPPELE 641	805641	607165.354	3469229.942	4642.86	3/11/08	29.52	4613.34
					5/12/08	30.64	4612.22
					7/21/08	25.59	4617.27
					10/14/08	24.53	4618.33
					1/21/09	27.35	4615.51
					4/8/09	29.08	4613.78
					7/9/09	31.51	4611.35
					10/7/09	29.92	4612.94
					7/20/10	50.38	4592.48
					10/20/10	48.88	4593.98
					1/17/11	51.13	4591.73
					4/5/11	53.81	4589.05
					7/11/11	56.82	4586.04
					10/12/11	37.62	4605.24
					1/31/12	46.80	4596.06
					4/11/12	52.07	4590.79
					7/6/12	62.39	4580.47
					10/3/12	71.66	4571.20
					1/17/13	59.73	4583.13
					4/8/13	83.98	4558.88
					7/9/13	92.84	4550.02
					10/15/13	28.50	4614.36
					1/14/14	49.32	4593.54
					4/8/14	52.03	4590.83
					7/8/14	66.62	4576.24
					10/21/14	24.56	4618.30
					7/24/15	41.32	4601.54
					7/12/16	38.41	4604.45
					7/27/17	48.58	4594.28
					7/31/18	62.29	4580.57
					7/19/19	29.30	4613.56
FLEMING	218386	605565.701	3469342.523	4693.68	2/18/09	299.30	4394.38
					4/8/09	301.81	4391.87
					7/7/09	304.60	4389.08
					10/6/09	307.84	4385.84
					1/21/10	311.73	4381.95
					4/20/10	315.26	4378.42
					7/15/10	318.32	4375.36
					11/4/10	349.62	4344.06
					1/19/11	356.89	4336.79
					7/12/11	364.72	4328.96
					2/3/12	370.84	4322.84
					7/9/12	373.86	4319.82
					1/18/13	373.96	4319.72
					7/17/13	374.88	4318.80
					1/10/14	379.63	4314.05
					7/17/14	372.97	4320.71
FRANCO 101	500101	602848.756	3468830.905	4636.75	4/10/13	196.05	4440.70
					7/10/13	196.19	4440.56
					10/16/13	196.65	4440.10
					1/14/14	196.77	4439.98
					4/8/14	196.86	4439.89
					7/14/14	197.08	4439.67
					10/8/14	197.91	4438.84

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
FRANCO 383	221383	602817.854	3468831.563	4636.88	9/13/12	195.19	4441.69
					10/5/12	195.00	4441.88
					12/3/12	196.70	4440.18
					1/15/13	196.30	4440.58
					2/6/13	195.62	4441.26
					3/7/13	196.20	4440.68
					4/10/13	196.25	4440.63
					7/10/13	196.13	4440.75
					10/16/13	196.30	4440.58
					1/14/14	196.46	4440.42
					4/8/14	196.89	4439.99
					7/14/14	196.87	4440.01
					10/8/14	196.86	4440.02
					7/27/15	198.11	4438.77
					7/18/16	197.32	4439.56
					7/20/17	198.37	4438.51
					7/27/18	198.73	4438.15
				4635.79	7/24/19	199.56	4436.23
					8/12/20	200.58	4435.21
					7/22/21	200.62	4435.17
FULTZ	212447	607153.306	3469063.892	4642.92	10/22/08	40.59	4602.33
					1/21/09	40.66	4602.26
					4/9/09	42.88	4600.04
					7/13/09	54.94	4587.98
					10/8/09	56.16	4586.76
					1/25/10	53.45	4589.47
					4/20/10	63.82	4579.10
					7/14/10	119.86	4523.06
GARNER 557	558557	602659.240	3468962.415	4638.45	2/21/08	191.05	4447.40
					5/5/08	191.28	4447.17
					7/15/08	191.44	4447.01
					10/16/08	191.83	4446.62
					1/28/09	191.92	4446.53
					4/15/09	192.09	4446.36
					7/16/09	192.52	4445.93
					10/14/09	192.82	4445.63
					2/2/10	193.33	4445.12
					4/22/10	193.49	4444.96
					7/20/10	193.93	4444.52
					10/19/10	194.29	4444.16
					1/19/11	194.61	4443.84
					4/6/11	194.86	4443.59
					7/15/11	195.25	4443.20
					10/11/11	195.72	4442.73
					2/2/12	196.09	4442.36
					4/13/12	196.30	4442.15
					7/11/12	196.72	4441.73
					10/5/12	197.08	4441.37
					1/11/13	197.51	4440.94
					4/15/13	197.76	4440.69
					7/10/13	197.87	4440.58
					10/11/13	198.27	4440.18
					1/17/14	198.46	4439.99
					4/15/14	198.58	4439.87
					8/6/20	202.36	4436.09
					1/11/21	202.85	4435.60
					7/21/21	203.52	4434.93

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
GARNER 635	587635	602665.352	3468967.902	4640.74	2/4/08	193.20	4447.54
					5/5/08	195.90	4444.84
					7/15/08	193.58	4447.16
					10/15/08	194.35	4446.39
					1/28/09	194.80	4445.94
					4/15/09	195.54	4445.20
					7/16/09	194.88	4445.86
					10/14/09	196.36	4444.38
					2/2/10	195.32	4445.42
					4/22/10	196.01	4444.73
					8/25/10	195.57	4445.17
					10/19/10	225.83	4414.91
					1/19/11	196.89	4443.85
					4/6/11	197.40	4443.34
					7/15/11	198.07	4442.67
					10/11/11	197.75	4442.99
					2/2/12	199.50	4441.24
					4/13/12	200.40	4440.34
					7/11/12	199.15	4441.59
					10/5/12	202.71	4438.03
					1/11/13	199.38	4441.36
					4/15/13	200.53	4440.21
					7/10/13	200.13	4440.61
					10/11/13	200.27	4440.47
					1/17/14	201.83	4438.91
					4/15/14	200.67	4440.07
					7/26/17	202.02	4438.72
					1/16/18	202.07	4438.67
					7/24/18	205.65	4435.09
					1/15/19	203.03	4437.71
					7/15/19	208.66	4432.08
					8/6/20	204.32	4436.42
					7/21/21	206.36	4434.38
GGOOSE 547	628547	606256.657	3469820.260	4717.11	5/21/08	220.91	4496.20
					8/15/08	238.48	4478.63
					10/29/08	235.90	4481.21
					2/24/09	236.13	4480.98
					5/14/09	236.17	4480.94
					8/19/09	236.01	4481.10
					8/19/09	236.01	4481.10
					11/11/09	237.66	4479.45
					3/9/10	238.84	4478.27
					4/27/10	239.17	4477.94
GL-03	539782	604386.940	3473747.943	4924.31	5/22/08	660.15	4264.16
					8/4/08	659.79	4264.52
					12/2/08	658.25	4266.06
					2/26/09	658.62	4265.69
					5/5/09	657.23	4267.08
					8/12/09	656.56	4267.75
					8/12/09	656.56	4267.75
					11/10/09	655.31	4269.00
					3/2/10	655.52	4268.79
					4/9/10	655.35	4268.96
					7/7/10	655.05	4269.26
					2/1/12	651.72	4272.59

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
GOAR RANCH	610695	602454.751	3468892.471	4631.13	2/21/08	183.90	4447.23
					5/5/08	188.11	4443.02
					7/16/08	184.41	4446.72
					10/22/08	184.68	4446.45
					1/27/09	184.87	4446.26
					4/15/09	184.96	4446.17
					7/7/09	185.36	4445.77
					10/12/09	185.72	4445.41
					2/2/10	186.25	4444.88
					4/22/10	186.44	4444.69
					7/13/10	186.76	4444.37
					1/19/11	187.52	4443.61
					7/12/11	188.24	4442.89
					2/6/12	189.02	4442.11
					9/13/12	190.08	4441.05
					1/11/13	190.48	4440.65
					9/18/13	191.21	4439.92
					1/17/14	191.48	4439.65
					7/21/14	191.73	4439.40
					2/2/15	191.44	4439.69
					8/4/15	191.74	4439.39
					1/11/16	191.68	4439.45
					7/25/16	191.83	4439.30
					1/17/17	192.43	4438.70
					7/12/17	192.84	4438.29
					1/15/18	193.12	4438.01
					7/17/18	193.56	4437.57
					1/7/19	194.16	4436.97
					7/8/19	194.68	4436.45
					1/21/20	195.19	4435.94
					7/20/20	195.34	4435.79
					1/5/21	195.91	4435.22
					7/12/21	196.50	4434.63

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
HOBAN	805290	601705.848	3468880.329	4607.60	2/27/08	163.05	4444.55
					5/7/08	163.28	4444.32
					7/14/08	163.87	4443.73
					10/16/08	163.95	4443.65
					1/28/09	163.82	4443.78
					4/15/09	164.16	4443.44
					7/14/09	164.59	4443.01
					10/15/09	165.00	4442.60
					3/2/10	165.32	4442.28
					5/18/10	165.71	4441.89
					7/20/10	166.17	4441.43
					10/19/10	166.45	4441.15
					8/31/11	167.76	4439.84
					12/14/11	168.13	4439.47
					2/1/12	168.09	4439.51
					4/19/12	168.32	4439.28
					7/11/12	169.10	4438.50
					10/17/12	169.40	4438.20
					2/15/13	169.70	4437.90
					5/8/13	169.95	4437.65
					8/13/13	170.31	4437.29
					11/1/13	170.54	4437.06
					2/10/14	170.22	4437.38
					5/7/14	170.61	4436.99
					7/21/14	170.90	4436.70
					11/13/14	170.81	4436.79
					2/4/15	170.26	4437.34
					5/19/15	170.37	4437.23
					9/10/15	170.57	4437.03
					10/21/15	170.58	4437.02
					3/16/16	170.33	4437.27
					8/18/16	171.05	4436.55
					3/7/17	171.41	4436.19
					7/13/17	172.00	4435.60
					2/5/18	172.12	4435.48
					7/25/18	172.74	4434.86
					1/28/19	173.29	4434.31
					8/7/19	173.88	4433.72
					2/20/20	174.29	4433.31
					9/8/20	174.47	4433.13
					3/15/21	175.10	4432.50
HOWARD 312	221312	601308.920	3468772.630	4594.9356	8/14/12	188.36	4406.58
					10/16/12	193.33	4401.61
					2/6/13	193.74	4401.20
					4/9/13	195.30	4399.64
					7/12/13	198.27	4396.67
					10/16/13	201.08	4393.86
					1/8/14	202.61	4392.33
					4/10/14	204.64	4390.30
					7/14/14	206.97	4387.97
					10/10/14	206.36	4388.58
					5/19/15	208.08	4386.86
					7/31/15	210.54	4384.40
					7/27/16	207.89	4387.05
					7/21/17	207.54	4387.40
					7/23/18	204.95	4389.99
					7/9/19	206.58	4388.36
					7/21/20	205.37	4389.57
					7/28/21	214.78	4380.16

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
HOWARD NR	NR	601281.159	3468770.377	4593.91	3/4/08	150.10	4443.81
					5/8/08	150.70	4443.21
					7/14/08	150.91	4443.00
					10/15/08	150.67	4443.24
					1/28/09	150.67	4443.24
					4/15/09	151.15	4442.76
					7/15/09	151.76	4442.15
					10/12/09	152.08	4441.83
					1/27/10	152.20	4441.71
					4/21/10	152.30	4441.61
					7/19/10	153.16	4440.75
					10/18/10	153.53	4440.38
					1/17/11	153.51	4440.40
					4/11/11	154.24	4439.67
					8/26/11	154.79	4439.12
					10/11/11	155.02	4438.89
					2/1/12	155.08	4438.83
					4/13/12	155.40	4438.51
					9/13/12	156.29	4437.62
					10/16/12	156.43	4437.48
					2/6/13	156.27	4437.64
					4/9/13	156.71	4437.20
					7/12/13	157.18	4436.73
					10/16/13	157.52	4436.39
					1/8/14	157.16	4436.75
					4/10/14	157.55	4436.36
					7/14/14	157.92	4435.99
					10/10/14	157.68	4436.23
					2/2/15	157.11	4436.80
					5/19/15	157.31	4436.60
					7/31/15	157.58	4436.33
					10/8/15	157.36	4436.55
					1/12/16	157.01	4436.90
					7/27/16	157.93	4435.98
					1/16/17	158.23	4435.68
					7/21/17	158.84	4435.07
					1/15/18	158.86	4435.05
					7/23/18	159.64	4434.27
					1/14/19	160.18	4433.73
					7/9/19	160.66	4433.25
					1/17/20	160.96	4432.95
					7/21/20	161.07	4432.84
					1/4/21	161.71	4432.20
					7/28/21	162.43	4431.48

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
KEEFER	209744	599879.175	3468119.015	4572.03	2/6/08	134.67	4437.36
					5/6/08	135.28	4436.75
					7/16/08	136.24	4435.79
					10/28/08	135.87	4436.16
					1/28/09	134.88	4437.15
					4/16/09	135.00	4437.03
					7/14/09	136.07	4435.96
					10/13/09	136.67	4435.36
					1/26/10	136.26	4435.77
					4/20/10	136.26	4435.77
					7/15/10	137.29	4434.74
					10/19/10	137.68	4434.35
					1/18/11	137.42	4434.61
					4/6/11	137.91	4434.12
					7/18/11	140.39	4431.64
					10/11/11	141.68	4430.35
					2/6/12	139.27	4432.76
					4/23/12	139.76	4432.27
					7/17/12	140.69	4431.34
					10/9/12	141.00	4431.03
					1/10/13	140.80	4431.23
					4/8/13	141.32	4430.71
					7/11/13	141.81	4430.22
					10/7/13	141.63	4430.40
					1/7/14	141.10	4430.93
					4/9/14	140.91	4431.12
					7/10/14	141.97	4430.06
					10/8/14	141.45	4430.58
					5/19/15	140.47	4431.56
					7/21/15	140.80	4431.23
					10/8/15	140.21	4431.82
					1/14/16	139.54	4432.49
					7/25/16	143.37	4428.66
					7/25/17	142.64	4429.39
					2/23/18	142.25	4429.78
					7/9/18	143.46	4428.57
					1/11/19	144.10	4427.93
					7/10/19	144.82	4427.21
					1/17/20	144.79	4427.24
					7/22/20	145.42	4426.61
					1/12/21	146.11	4425.92
					7/13/21	146.78	4425.25
LADD 251	520251	594788.933	3470348.534	4443.83	3/22/13	221.32	4222.51
					6/14/13	221.78	4222.05
					9/24/13	219.6	4224.23
					12/3/13	217.44	4226.39
					2/25/14	217.59	4226.24
					6/4/14	218.27	4225.56
					9/10/14	219.04	4224.79
					11/20/14	213.58	4230.25
					3/24/15	214.18	4229.65
					9/17/15	216.39	4227.44
					3/24/16	217.85	4225.98
					9/28/16	219.8	4224.03
					3/20/17	220.91	4222.92
					8/10/17	222.12	4221.71
					3/8/18	222.94	4220.89
					8/22/18	223.64	4220.19
					2/14/19	224.29	4219.54
					9/9/19	225.05	4218.78
					2/27/20	225.45	4218.38
					8/25/20	225.33	4218.50
					3/23/21	225.80	4218.03
					9/20/21	226.48	4217.35

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 538	505538	596790.675	3469638.573	4527.05	2/9/10	253.10	4273.95
					4/28/10	253.83	4273.22
					7/28/10	254.05	4273.00
					12/8/10	252.87	4274.18
					3/17/11	252.76	4274.29
					6/24/11	288.00	4239.05
					9/29/11	276.58	4250.47
					12/16/11	250.68	4276.37
					2/15/12	253.80	4273.25
					6/11/12	258.90	4268.15
					9/26/12	255.76	4271.29
					12/19/12	249.43	4277.62
					3/22/13	250.51	4276.54
					6/27/13	270.00	4257.05
					9/24/13	250.80	4276.25
					12/3/13	251.36	4275.69
					2/25/14	253.36	4273.69
					6/4/14	259.63	4267.42
					9/10/14	248.68	4278.37
					11/20/14	268.66	4258.39
					3/24/15	248.46	4278.59
					9/17/15	243.05	4284.00
					3/24/16	266.62	4260.43
					9/28/16	246.14	4280.91
					3/20/17	232.53	4294.52
					8/10/17	227.4	4299.65
					3/8/18	222.4	4304.65
					8/22/18	219.90	4307.15
					2/14/19	217.80	4309.25
					9/9/19	216.22	4310.83
					2/27/20	215.26	4311.79
					8/25/20	213.80	4313.25
					3/23/21	212.10	4314.95
					9/20/21	211.29	4315.76
LADD 635	224635	598724.834	3467541.096	4598.99	7/18/15	169.31	4429.68
					12/17/15	169.54	4429.45
					3/31/16	169.56	4429.43
					9/28/16	170.21	4428.78
					11/22/16	170.90	4428.09
					3/20/17	184.94	4414.05
					8/24/17	172.09	4426.90
					3/8/18	172.22	4426.77
					8/22/18	173.07	4425.92
					2/14/19	173.20	4425.79
					9/9/19	174.03	4424.96
					2/27/20	173.85	4425.14
					8/25/20	186.34	4412.65

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 837	519837	594757.700	3470817.194	4470.11	2/9/10	262.80	4207.31
					4/28/10	262.65	4207.46
					7/28/10	265.75	4204.36
					12/8/10	262.38	4207.73
					3/17/11	262.65	4207.46
					6/24/11	262.51	4207.60
					9/29/11	262.28	4207.83
					12/16/11	264.32	4205.79
					2/15/12	262.24	4207.87
					6/11/12	264.04	4206.07
					9/26/12	261.75	4208.36
					12/19/12	261.94	4208.17
					3/27/13	266.68	4203.43
					6/14/13	261.51	4208.60
					9/24/13	261.38	4208.73
					12/3/13	260.85	4209.26
					2/25/14	261.04	4209.07
					6/4/14	262.53	4207.58
					9/10/14	263.68	4206.43
					11/20/14	261.18	4208.93
					3/24/15	261.44	4208.67
					9/17/15	264.32	4205.79
					3/24/16	261.79	4208.32
					9/28/16	262.8	4207.31
					3/20/17	261.3	4208.81
					8/10/17	262.0	4208.11
					3/8/18	283.2	4186.90
					8/22/18	281.46	4188.65
					2/14/19	341.04	4129.07
					9/9/19	295.40	4174.71
					2/27/20	304.30	4165.81
					8/25/20	299.29	4170.82
					3/23/21	317.23	4152.88
					9/20/21	295.30	4174.81

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 977	642977	597619.168	3468714.011	4513.40	3/17/11	82.32	4431.08
					6/24/11	84.00	4429.40
					9/29/11	83.62	4429.78
					12/16/11	84.8	4428.60
					2/15/12	84.67	4428.73
					6/11/12	85.7	4427.70
					9/26/12	84.96	4428.44
					12/19/12	86.27	4427.13
					3/22/13	85.18	4428.22
					6/14/13	86.54	4426.86
					9/24/13	82.66	4430.74
					12/3/13	84.48	4428.92
					2/25/14	85.27	4428.13
					6/4/14	85.88	4427.52
					9/10/14	86.15	4427.25
					11/20/14	80.95	4432.45
					3/24/15	83.73	4429.67
					5/19/15	84.28	4429.12
					9/17/15	86.44	4426.96
					12/17/15	86.81	4426.59
					3/24/16	87.22	4426.18
					9/28/16	86.11	4427.29
					3/20/17	86.55	4426.85
					8/10/17	87.9	4425.50
					3/8/18	87.92	4425.48
					8/22/18	88.92	4424.48
					2/14/19	87.5	4425.90
					9/9/19	89.27	4424.13
					2/27/20	87.47	4425.93
					8/25/20	89.28	4424.12
					3/23/21	90.20	4423.20
					9/20/21	88.60	4424.80

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
MCCONNELL 265	539265	601463.094	3468840.139	4600.70	2/20/08	156.15	4444.55
					5/6/08	156.40	4444.30
					7/15/08	157.07	4443.63
					11/19/08	157.17	4443.53
					1/28/09	156.70	4444.00
					4/15/09	157.22	4443.48
					7/15/09	157.59	4443.11
					10/12/09	158.13	4442.57
					1/26/10	158.35	4442.35
					4/22/10	158.68	4442.02
					7/21/10	159.37	4441.33
					10/18/10	159.63	4441.07
					1/19/11	159.69	4441.01
					4/8/11	159.10	4441.60
					7/12/11	160.77	4439.93
					10/11/11	161.17	4439.53
					2/7/12	161.31	4439.39
					4/11/12	161.57	4439.13
					7/6/12	162.36	4438.34
					10/8/12	162.43	4438.27
					1/10/13	162.57	4438.13
					4/18/13	163.08	4437.62
					10/14/13	163.61	4437.09
					1/8/14	163.42	4437.28
					4/14/14	163.79	4436.91
					7/14/14	164.03	4436.67
					10/7/14	163.89	4436.81
					2/2/15	163.32	4437.38
					5/19/15	163.54	4437.16
					7/31/15	163.83	4436.87
					10/8/15	163.64	4437.06
					1/11/16	163.36	4437.34
					7/26/16	167.70	4433.00
					1/16/17	164.46	4436.24
					7/20/17	165.09	4435.61
					1/15/18	165.10	4435.60
					7/17/18	165.09	4435.61
					1/9/19	166.29	4434.41
					7/10/19	166.91	4433.79
					1/16/20	167.28	4433.42
					8/10/20	167.46	4433.24
					1/5/21	167.96	4432.74
					7/27/21	168.73	4431.97
MCCONNELL 459	221459	601471.708	3468840.682	4601.55	7/27/12	170.50	4431.05
					10/8/12	166.81	4434.74
					1/15/13	166.32	4435.23
					4/10/13	166.79	4434.76
					7/19/13	167.53	4434.02
					10/14/13	167.13	4434.42
					1/8/14	167.90	4433.65
					4/14/14	167.28	4434.27
					9/9/14	167.37	4434.18
					10/7/14	167.24	4434.31
					5/19/15	168.03	4433.52
					7/31/15	170.86	4430.69
					7/26/16	167.13	4434.42
					7/20/17	168.58	4432.97
					7/17/18	169.08	4432.47
					7/10/19	170.81	4430.74
					8/10/20	171.11	4430.44
					7/27/21	171.67	4429.88

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
METZLER	35-71891	602091.308	3471381.176	4728.53	3/5/08	288.30	4440.23
					5/15/08	286.53	4442.00
					7/31/08	286.82	4441.71
					10/20/08	287.09	4441.44
					2/11/09	287.74	4440.79
					4/20/09	287.47	4441.06
					7/15/09	287.58	4440.95
					10/14/09	287.99	4440.54
					2/1/10	288.38	4440.15
					5/18/10	288.65	4439.88
					7/16/10	288.88	4439.65
					10/19/10	289.09	4439.44
					1/19/11	289.54	4438.99
					4/4/11	289.87	4438.66
					7/12/11	289.98	4438.55
					10/12/11	290.47	4438.06
					2/7/12	290.92	4437.61
					4/12/12	291.15	4437.38
					7/18/12	291.37	4437.16
					10/4/12	291.63	4436.90
					1/11/13	292.15	4436.38
					4/11/13	292.29	4436.24
					7/17/13	292.43	4436.10
					10/17/13	292.86	4435.67
					1/16/14	293.20	4435.33
					4/15/14	293.20	4435.33
					7/21/14	293.45	4435.08
					10/8/14	293.62	4434.91
					1/27/15	293.36	4435.17
					8/3/15	293.54	4434.99
					1/12/16	293.69	4434.84
					7/25/16	293.40	4435.13
					1/17/17	294.09	4434.44
					7/14/17	294.38	4434.15
					1/15/18	294.51	4434.02
					7/17/18	294.94	4433.59
					1/14/19	295.08	4433.45
					7/12/19	295.54	4432.99
					1/15/20	295.76	4432.77
					8/11/20	295.97	4432.56
					1/7/21	296.41	4432.12
					7/19/21	297.02	4431.51
MOORE	538847	599499.9949	3468066.557	4568.49	8/1/18	155.64	4412.85
					7/9/19	157.43	4411.06
					7/22/20	157.32	4411.17
					7/28/21	158.86	4409.63

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NESS	509127	607866.391	3471419.494	4761.23	7/24/08	557.90	4203.33
					10/16/08	549.30	4211.93
					2/25/09	536.40	4224.83
					5/11/09	544.64	4216.59
					8/11/09	566.87	4194.36
					11/12/09	537.34	4223.89
					2/2/10	531.85	4229.38
					4/21/10	568.11	4193.12
					7/19/10	573.02	4188.21
					1/18/11	541.80	4219.43
					7/12/11	597.71	4163.52
					2/3/12	591.24	4169.99
					1/9/13	551.35	4209.88
					1/6/14	538.84	4222.39
					7/7/14	594.42	4166.81
					7/20/15	553.54	4207.69
					7/11/16	556.90	4204.33
					7/27/17	550.36	4210.87
					7/31/18	538.72	4222.51
					7/11/19	575.06	4186.17
					8/14/20	584.34	4176.89
					7/19/21	610.72	4150.51
NOTEMAN	212483	606053.800	3471576.400	4800.68	5/13/08	339.77	4460.91
					8/27/08	344.34	4456.34
					11/22/08	322.26	4478.42
					2/25/09	327.54	4473.14
NSD-02	527587	598820.051	3468821.474	4531.38	10/7/09	101.17	4430.21
					3/16/10	99.43	4431.95
					5/25/10	101.63	4429.75
					8/25/10	102.38	4429.00
					3/17/11	102.68	4428.70
					6/17/11	109.29	4422.09
					12/7/11	104.41	4426.97
					3/6/12	104.30	4427.08
					12/14/12	107.24	4424.14
					3/22/13	107.20	4424.18
					6/24/13	113.50	4417.88
					9/23/13	105.00	4426.38
					12/19/13	103.45	4427.93
					3/24/14	103.12	4428.26
					6/23/14	107.06	4424.32
					9/23/14	104.77	4426.61
					12/22/14	101.30	4430.08
					3/23/15	101.56	4429.82
					6/22/15	104.33	4427.05
					9/28/15	113.64	4417.74
					12/21/15	112.43	4418.95
					3/21/16	113.42	4417.96
					6/20/16	114.78	4416.60
					9/29/16	103.99	4427.39
					3/16/17	105.44	4425.94
					9/30/17	108.89	4422.49
					3/26/18	106.02	4425.36
					9/24/18	106.13	4425.25
					3/18/19	105.00	4426.38
					7/30/19	112.53	4418.85
					1/30/20	105.28	4426.10
					7/30/20	108.14	4423.24
					2/9/21	107.95	4423.43
					7/28/21	109.64	4421.74

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NSD-03	527586	598070.538	3468694.259	4518.28	10/7/09	85.62	4432.66
					3/16/10	83.51	4434.77
					5/25/10	84.49	4433.79
					8/25/10	85.70	4432.58
					3/17/11	86.76	4431.52
					6/17/11	88.76	4429.52
					12/7/11	89.30	4428.98
					3/6/12	89.24	4429.04
					12/14/12	90.83	4427.45
					3/22/13	88.65	4429.63
					6/24/13	91.70	4426.58
					9/23/13	86.88	4431.40
					12/19/13	89.11	4429.17
					3/24/14	89.48	4428.80
					6/23/14	90.77	4427.51
					9/23/14	89.10	4429.18
					12/22/14	86.80	4431.48
					3/23/15	87.68	4430.60
					6/22/15	89.40	4428.88
					9/28/15	90.65	4427.63
					12/21/15	90.97	4427.31
					3/21/16	91.30	4426.98
					6/20/16	92.16	4426.12
					9/29/16	89.50	4428.78
					3/16/17	89.81	4428.47
					9/30/17	90.71	4427.57
					3/26/18	91.28	4427.00
					9/24/18	92.22	4426.06
					3/18/19	91.01	4427.27
					7/30/19	93.64	4424.64
					1/30/20	90.87	4427.41
					7/30/20	93.51	4424.77
					2/9/21	93.94	4424.34
					7/28/21	94.33	4423.95
NWC-02	562944	600177.435	3467474.673	4600.44	10/27/08	160.51	4439.93
					4/29/09[3]	160.5	4439.94
					9/10/09[3]	155	4445.44
					4/2010[3]	131	4469.44
					3/1/13[3]	131	4469.44
					2/12/15	165.02	4435.42
					7/30/15	166.36	4434.08
					10/6/15	165.92	4434.52
					1/12/16	166.36	4434.08
					7/26/16	167.43	4433.01
					1/26/17	167.49	4432.95
					7/18/17	168.60	4431.84
					1/16/18	168.50	4431.94
					7/18/18	169.35	4431.09
					1/7/19	170.50	4429.94
					7/9/19	170.59	4429.85
					1/16/20	171.98	4428.46
					7/22/20	171.19	4429.25
					1/12/21	172.33	4428.11
					7/22/21	173.15	4427.29
NWC-03	203321	601153.857	3468350.838	4574.99	11/3/08	131.48	4443.51
					4/29/09[3]	130	4444.99
					9/10/09[3]	126	4448.99
					10/9/09[3]	125	4449.99

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NWC-03 CAP	627684	601151.704	3468343.653	4572.82	2/2/09	130.03	4442.79
					4/23/09	130.62	4442.20
					7/21/09	131.26	4441.56
					10/21/09	131.60	4441.22
					2/3/10	131.34	4441.48
					4/21/10	131.86	4440.96
					7/20/10	131.50	4441.32
					1/18/11	132.91	4439.91
					7/15/11	134.42	4438.40
					10/13/11	134.73	4438.09
					1/31/12	134.50	4438.32
					4/25/12	135.09	4437.73
					7/18/12	135.73	4437.09
					10/10/12	135.97	4436.85
					1/10/13	135.60	4437.22
					4/17/13	136.32	4436.50
					7/12/13	136.78	4436.04
					10/10/13	136.78	4436.04
					1/13/14	136.43	4436.39
					4/7/14	136.93	4435.89
					7/10/14	137.30	4435.52
					2/12/15	136.27	4436.55
					7/30/15	136.88	4435.94
					9/29/16	130.38	4442.44
					1/26/17	128.41	4444.41
					7/18/17	130.48	4442.34
					1/16/18	121.55	4451.27
					2/23/18	124.44	4448.38
					7/18/18	119.39	4453.43
NWC-04	551849	605829.808	3469071.959	4690.77	12/2/08	352.11	4338.66
					4/29/09[3]	328	4362.77
					9/10/09[3]	324	4366.77
					4/2010[3]	216	4474.77
					3/1/13[3]	216	4474.77
NWC-06	575700	599822.821	3467749.954	4592.50	4/29/09[3]	156	4436.50
					9/10/09[3]	155	4437.50
					10/9/09[3]	148	4444.50
					4/2010[3]	140	4452.50
					3/1/13[3]	140	4452.50
					7/30/15	160.95	4431.55
					10/6/15	160.48	4432.02
					1/12/16	168.81	4423.69
					7/26/16	167.73	4424.77
					1/26/17	162.26	4430.24
					7/18/17	162.80	4429.70
					1/16/18	162.78	4429.72
					7/18/18	163.77	4428.73
					1/7/19	164.68	4427.82
					7/9/19	165.28	4427.22
					1/16/20	165.12	4427.38
					7/22/20	165.81	4426.69
					1/12/21	166.51	4425.99
					7/22/21	167.26	4425.24
OLMOS	224745	599641.506	3468055.337	4576.92	1/13/16	145.84	4431.08
					1/15/18	148.47	4428.45
					7/13/18	150.28	4426.64
					1/14/19	150.75	4426.17
					7/8/19	151.52	4425.40
					1/17/20	151.52	4425.40
					8/5/20	152.38	4424.54
					1/8/21	152.98	4423.94
					7/29/21	153.85	4423.07

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
OSBORN	643436	607031.823	3470270.548	4711.95	5/13/08	68.65	4643.30
					8/5/08	69.53	4642.42
					10/16/08	69.83	4642.12
					1/20/09	69.23	4642.72
					4/7/09	69.60	4642.35
					7/8/09	96.61	4615.34
					10/5/09	75.09	4636.86
					1/21/10	75.37	4636.58
					4/19/10	81.59	4630.36
					7/12/10	83.00	4628.95
					7/12/11	74.60	4637.35
					2/3/12	74.57	4637.38
					7/9/12	74.63	4637.32
PANAGAKOS	35-76413	605304.234	3469323.140	4691.40	1/22/09	155.28	4536.12
					4/9/09	156.15	4535.25
					7/9/09	161.61	4529.79
					10/6/09	167.20	4524.20
					1/21/10	166.92	4524.48
					4/20/10	167.11	4524.29
					7/20/10	171.78	4519.62
					10/18/10	176.39	4515.01
					7/14/11	173.78	4517.62
					8/25/11	172.89	4518.51
					2/6/12	169.09	4522.31
					2/29/12	169.32	4522.08
					3/15/12	169.64	4521.76
					4/12/12	168.85	4522.55
					7/9/12	170.38	4521.02
					11/27/12	169.82	4521.58
					1/18/13	169.12	4522.28
					2/6/13	168.76	4522.64
					4/9/13	167.79	4523.61
					7/10/13	168.51	4522.89
					10/15/13	164.49	4526.91
					1/10/14	160.32	4531.08
					4/16/14	158.75	4532.65
					7/17/14	159.69	4531.71
					10/16/14	159.28	4532.12
					1/26/15	158.02	4533.38
					7/27/15	160.04	4531.36
					1/11/16	160.50	4530.90
					2/24/17	162.64	4528.76
					7/17/17	160.37	4531.03
					1/18/18	160.12	4531.28
					7/30/18	161.94	4529.46
					1/15/19	167.97	4523.43
					7/8/19	166.86	4524.54
					1/14/20	166.69	4524.71
					8/13/20	163.46	4527.94
					1/11/21	162.45	4528.95
					7/22/21	162.18	4529.22
PARRA	576415	602170.716	3471263.549	4727.21	5/15/08	279.78	4447.43
					8/18/08	280.06	4447.15
					11/3/08	280.39	4446.82
					2/13/09	280.75	4446.46
					4/28/09	280.88	4446.33
					7/20/09	280.99	4446.22

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
PIONKE 395	613395	601045.471	3468960.981	4592.13	7/17/08	149.88	4442.25
					11/3/08	150.99	4441.14
					2/25/09	149.68	4442.45
					4/14/09	150.01	4442.12
					7/13/09	150.47	4441.66
					10/7/09	150.96	4441.17
					3/8/10	151.11	4441.02
					4/26/10	151.32	4440.81
					7/15/10	151.90	4440.23
					10/18/10	152.38	4439.75
					1/19/11	152.38	4439.75
					4/8/11	153.04	4439.09
					7/12/11	153.57	4438.56
					10/11/11	153.87	4438.26
					2/1/12	153.92	4438.21
					4/12/12	154.35	4437.78
					7/11/12	154.97	4437.16
					10/17/12	155.31	4436.82
					1/9/13	155.25	4436.88
					4/17/13	155.76	4436.37
					7/18/13	156.09	4436.04
					10/17/13	156.39	4435.74
					2/5/14	155.84	4436.29
					4/9/14	156.21	4435.92
					7/11/14	156.66	4435.47
					10/7/14	156.47	4435.66
					2/2/15	155.81	4436.32
					5/18/15	155.97	4436.16
					7/22/15	156.29	4435.84
					10/8/15	156.03	4436.10
					1/11/16	155.64	4436.49
					7/26/16	156.55	4435.58
					1/16/17	156.92	4435.21
					9/30/17	157.63	4434.50
					1/15/18	157.42	4434.71
					7/24/18	158.37	4433.76
					1/7/19	158.89	4433.24
					7/11/19	159.32	4432.81
					1/8/20	159.43	4432.70
					8/12/20	159.73	4432.40
					1/5/21	160.22	4431.91
					7/23/21	160.98	4431.15
PIONKE 517	221517	600909.967	3468866.654	4587.20792	9/18/12	152.00	4435.21
					10/11/12	152.15	4435.06
					1/9/13	152.23	4434.98
					4/17/13	152.58	4434.63
					7/16/13	153.11	4434.10
					10/17/13	153.27	4433.94
					3/5/14	153.24	4433.97
					4/9/14	153.07	4434.14
					7/11/14	153.56	4433.65
					10/7/14	153.31	4433.90
					5/18/15	152.76	4434.45
					7/22/15	153.12	4434.09
					7/26/16	153.32	4433.89
					7/18/17	154.44	4432.77
					7/24/18	155.18	4432.03
					7/11/19	156.16	4431.05
					8/12/20	156.55	4430.66
					7/23/21	157.77	4429.44

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
POOL	509518	599683.603	3470013.823	4639.09	2/20/08	204.22	4434.87
					5/19/08	204.72	4434.37
					7/31/08	205.56	4433.53
					10/21/08	205.06	4434.03
					2/13/09	204.74	4434.35
					4/21/09	204.87	4434.22
					7/20/09	205.69	4433.40
					10/20/09	206.06	4433.03
					2/24/10	205.59	4433.50
					4/22/10	205.48	4433.61
					7/14/10	206.58	4432.51
					10/20/10	206.74	4432.35
					3/21/16	209.98	4429.11
					8/1/18	212.45	4426.64
					7/10/19	212.88	4426.21
					8/10/20	213.56	4425.53
					7/20/21	214.78	4424.31
POWER 639	222639	602146.123	3471373.655	4734.38	1/16/14	294.07	4440.31
					2/5/14	294.07	4440.31
					3/5/14	294.20	4440.18
					4/15/14	294.14	4440.24
					5/13/14	294.25	4440.13
					6/23/14	294.28	4440.10
					7/17/14	294.32	4440.06
					8/11/14	294.44	4439.94
					9/9/14	294.47	4439.91
					10/8/14	294.49	4439.89
					1/27/15	294.24	4440.14
					3/10/15	294.19	4440.19
					4/28/15	294.17	4440.21
					5/14/15	249.23	4485.15
					6/11/15	294.29	4440.09
					7/30/15	294.38	4440.00
					1/14/16	294.65	4439.73
					7/27/16	294.81	4439.57
					1/26/17	295.05	4439.33
					7/12/17	295.25	4439.13
					1/10/18	295.47	4438.91
					7/25/18	295.75	4438.63
					1/14/19	295.96	4438.42
					7/12/19	296.56	4437.82
					1/15/20	296.68	4437.70
					8/13/20	296.98	4437.40
					1/13/21	297.41	4436.97
					7/19/21	297.92	4436.46

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
RAMIREZ	216425	599730.649	3467584.363	4596.61	10/27/08	159.45	4437.16
					1/29/09	158.74	4437.87
					4/16/09	158.66	4437.95
					7/10/09	159.64	4436.97
					10/6/09	160.36	4436.25
					1/25/10	160.10	4436.51
					4/21/10	159.96	4436.65
					7/21/10	161.05	4435.56
					10/19/10	161.23	4435.38
					1/18/11	161.22	4435.39
					4/11/11	161.48	4435.13
					7/18/11	162.39	4434.22
					10/12/11	163.04	4433.57
					4/10/12	163.22	4433.39
					7/6/12	163.85	4432.76
					10/8/12	164.38	4432.23
					4/19/13	164.96	4431.65
					1/13/14	165.26	4431.35
					4/14/14	164.85	4431.76
					2/2/15	164.33	4432.28
					5/28/15	164.39	4432.22
					7/21/15	164.65	4431.96
					10/8/15	164.72	4431.89
					1/14/16	164.15	4432.46
					7/14/16	165.52	4431.09
					7/26/17	166.81	4429.80
					1/15/18	167.59	4429.02
					7/25/18	167.71	4428.90
					1/14/19	168.26	4428.35
					7/9/19	189.06	4407.55
					7/30/19	168.94	4427.67
					1/13/20	169.12	4427.49
					8/6/20	169.88	4426.73
					1/8/21	170.56	4426.05
					7/29/21	171.34	4425.27

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
RAY	803772	607083.422	3469195.147	4647.91	2/15/08	40.85	4607.06
					5/13/08	43.82	4604.09
					7/29/08	45.25	4602.66
					10/22/08	44.54	4603.37
					1/20/09	44.31	4603.60
					4/8/09	44.68	4603.23
					7/9/09	48.99	4598.92
					10/7/09	49.87	4598.04
					1/26/10	47.61	4600.30
					4/20/10	49.78	4598.13
					7/14/10	51.36	4596.55
					10/20/10	49.85	4598.06
					1/17/11	50.51	4597.40
					4/5/11	51.84	4596.07
					7/11/11	55.74	4592.17
					10/12/11	53.63	4594.28
					1/31/12	53.21	4594.70
					4/11/12	54.50	4593.41
					7/6/12	58.75	4589.16
					10/3/12	60.98	4586.93
					1/17/13	56.57	4591.34
					4/18/13	56.32	4591.59
					7/9/13	60.30	4587.61
					10/15/13	44.33	4603.58
					1/14/14	34.50	4613.41
					4/8/14	36.72	4611.19
					7/8/14	43.38	4604.53
					10/22/14	44.65	4603.26
					8/4/15	48.31	4599.60
					7/12/16	53.50	4594.41
					7/26/17	57.61	4590.30
					7/31/18	54.96	4592.95
					7/19/19	55.48	4592.43
					8/13/20	60.56	4587.35
					7/23/21	48.66	4599.25

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ROGERS 596	573596	601001.503	3468491.639	4577.35	11/11/09	135.46	4441.89
					2/25/10	135.89	4441.46
					4/22/10	135.62	4441.73
					7/16/10	136.63	4440.72
					10/19/10	136.61	4440.74
					1/20/11	134.21	4443.14
					4/8/11	137.68	4439.67
					7/14/11	138.09	4439.26
					10/12/11	138.09	4439.26
					1/30/12	137.91	4439.44
					4/23/12	138.61	4438.74
					7/13/12	139.65	4437.70
					10/10/12	139.55	4437.80
					1/15/13	139.23	4438.12
					4/15/13	139.97	4437.38
					7/15/13	139.94	4437.41
					10/16/13	140.50	4436.85
					1/9/14	140.12	4437.23
					4/11/14	140.56	4436.79
					7/18/14	140.64	4436.71
					1/12/16	139.57	4437.78
					9/30/17	141.86	4435.49
					1/18/18	141.88	4435.47
					7/26/18	142.57	4434.78
					1/14/19	142.75	4434.60
					7/22/19	143.54	4433.81
					1/22/20	143.75	4433.60
					7/22/21	145.37	4431.98
ROGERS 750[4]	641750	600977.690	3468417.386	4579.02	2/7/08	129.85	4449.17
					7/29/08	131.86	4447.16
					10/22/08	132.08	4446.94
					2/10/09	130.62	4448.40
					4/29/09	131.33	4447.69
					8/3/09	135.07	4443.95
ROGERS 803	641803	601003.273	3468480.391	4576.16	9/30/17	138.83	4437.33
					1/18/18	138.90	4437.26
					7/26/18	139.62	4436.54
					1/14/19	139.92	4436.24
					7/22/19	140.39	4435.77
					1/22/20	140.60	4435.56
					8/11/20	140.82	4435.34

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ROGERS E	216018	600449.648	3467636.029	4590.66	7/17/08	149.65	4441.01
					11/3/08	150.15	4440.51
					2/10/09	149.02	4441.64
					4/16/09	149.53	4441.13
					7/13/09	150.31	4440.35
					10/6/09	150.76	4439.90
					1/25/10	150.64	4440.02
					4/21/10	150.97	4439.69
					8/25/10	151.15	4439.51
					10/19/10	151.57	4439.09
					10/13/11	153.79	4436.87
					1/30/12	153.56	4437.10
					4/10/12	154.13	4436.53
					7/17/12	155.10	4435.56
					1/17/13	154.56	4436.10
					4/18/13	155.66	4435.00
					7/17/13	155.71	4434.95
					4/14/14	155.97	4434.69
					7/30/15	155.91	4434.75
					10/8/15	155.55	4435.11
					7/26/17	157.46	4433.20
					2/23/18	157.28	4433.38
					7/13/18	158.53	4432.13
					1/11/19	159.10	4431.56
					7/12/19	159.66	4431.00
					1/21/20	159.76	4430.90
					8/7/20	160.14	4430.52
					1/12/21	161.12	4429.54
					7/14/21	161.68	4428.98
RUIZ	531770	602857.357	3471424.219	4735.18	2/5/08	293.29	4441.89
					5/15/08	293.57	4441.61
					7/30/08	293.86	4441.32
					10/20/08	294.18	4441.00
					2/12/09	294.62	4440.56
					4/21/09	294.66	4440.52
					8/3/09	294.98	4440.20
					10/28/09	295.33	4439.85
					2/1/10	295.70	4439.48
					4/26/10	295.96	4439.22
					4/8/11	297.20	4437.98
					4/13/12	298.47	4436.71
					1/11/13	299.39	4435.79
					4/11/13	299.72	4435.46
					7/25/13	300.06	4435.12
					10/17/13	300.07	4435.11
					1/8/14	300.19	4434.99
					4/15/14	300.31	4434.87
					10/21/14	300.38	4434.80
					1/27/15	299.76	4435.42
					7/30/15	299.74	4435.44
					1/12/16	300.20	4434.98
					7/24/18	301.45	4433.73
					1/15/19	301.74	4433.44
					7/10/19	302.08	4433.10
RUIZ 146	232146	602851.840	3471407.239	4731.23	8/12/20	301.12	4430.11
					1/12/21	301.48	4429.75
					7/21/21	301.91	4429.32

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
SCHWARTZ	210865	600811.014	3468269.622	4564.49	2/8/08	121.80	4442.69
					5/19/08	123.49	4441.00
					7/29/08	122.64	4441.85
					10/22/08	123.39	4441.10
					1/29/09	122.87	4441.62
					4/17/09	123.53	4440.96
					7/10/09	124.15	4440.34
					10/6/09	124.55	4439.94
					1/22/10	124.32	4440.17
					4/21/10	124.65	4439.84
					7/21/10	125.80	4438.69
					10/19/10	126.30	4438.19
					1/17/11	125.35	4439.14
					4/11/11	127.50	4436.99
					7/18/11	127.67	4436.82
					10/12/11	127.51	4436.98
					2/6/12	127.34	4437.15
					4/10/12	127.78	4436.71
					7/16/12	128.84	4435.65
					10/17/12	128.98	4435.51
					3/13/13	128.81	4435.68
					5/14/13	129.60	4434.89
					7/15/13	129.05	4435.44
					10/14/13	130.15	4434.34
					4/9/14	129.77	4434.72
					7/18/14	129.81	4434.68
					10/22/14	129.66	4434.83
					2/3/15	128.66	4435.83
					5/18/15	129.30	4435.19
					8/4/15	129.51	4434.98
					10/8/15	129.34	4435.15
					1/14/16	128.32	4436.17
					7/27/16	130.01	4434.48
					1/24/17	129.86	4434.63
					7/11/17	131.21	4433.28
					1/9/18	130.46	4434.03
					7/11/18	131.96	4432.53
					1/9/19	131.50	4432.99
					1/22/20	132.54	4431.95
					7/22/20	132.76	4431.73
					1/8/21	133.62	4430.87
					7/20/21	134.17	4430.32

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
STEPHENS	808560	606981.766	3469072.799	4651.22	5/13/08	44.94	4606.28
					8/5/08	46.61	4604.61
					10/16/08	46.60	4604.62
					1/21/09	47.19	4604.03
					4/8/09	48.45	4602.77
					7/7/09	49.41	4601.81
					10/7/09	50.33	4600.89
					1/26/10	51.13	4600.09
					4/20/10	51.24	4599.98
					7/14/10	51.91	4599.31
					1/18/11	52.98	4598.24
					7/11/11	54.44	4596.78
					1/31/12	55.65	4595.57
					7/9/12	10.69	4640.53
					1/18/13	10.50	4640.72
					7/10/13	58.16	4593.06
					1/14/14	45.51	4605.71
					7/8/14	45.39	4605.83
					1/26/15	47.91	4603.31
					7/24/15	49.71	4601.51
					1/11/16	50.88	4600.34
					7/12/16	52.64	4598.58
					1/17/17	53.09	4598.13
					7/14/17	54.15	4597.07
					1/15/18	55.74	4595.48
					7/30/18	56.02	4595.20
					1/15/19	55.85	4595.37
					7/11/19	56.20	4595.02
					1/14/20	54.02	4597.20
					7/20/20	53.58	4597.64
					1/13/21	54.94	4596.28
					7/21/21	54.09	4597.13
SUNBELT	201531	605998.250	3471735.149	4806.52	2/6/08	352.10	4454.42
					5/15/08	358.97	4447.55
					8/5/08	Dry	<4426
					10/16/08	347.00	4459.52
					1/21/09	344.78	4461.74
					4/10/09	349.64	4456.88
					7/8/09	356.99	4449.53
					10/5/09	Dry	<4426
					1/21/10	Dry	<4426
					4/19/10	Dry	<4426
					7/12/10	Dry	<4426
					1/19/11	Dry	<4426
					8/25/11	Dry	<4426
					2/3/12	Dry	<4426
					7/9/12	Dry	<4426
					9/13/12	Dry	<4426
					1/17/13	Dry	<4426
					7/9/13	Dry	<4426
					1/10/14	Dry	<4426
					7/8/14	Dry	<4426

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
SWAN	NR	607378.547	3470648.298	4716.59	2/13/08	26.50	4690.09
					5/14/08	30.69	4685.90
					7/24/08	32.06	4684.53
					10/16/08	27.53	4689.06
					1/20/09	29.77	4686.82
					4/7/09	31.47	4685.12
					7/8/09	33.61	4682.98
					10/5/09	35.12	4681.47
					1/21/10	36.64	4679.95
					4/21/10	38.06	4678.53
					7/19/10	39.67	4676.92
					1/18/11	35.06	4681.53
					7/12/11	39.32	4677.27
					2/3/12	37.86	4678.73
					7/10/12	40.39	4676.20
					1/9/13	38.51	4678.08
					7/8/13	42.26	4674.33
					1/10/14	29.43	4687.16
					7/7/14	33.68	4682.91
					7/20/15	33.08	4683.51
					7/11/16	35.60	4680.99
					7/27/17	38.08	4678.51
					7/31/18	42.14	4674.45
TERRY 101	234101	599642.742	3468084.786	4562.55	9/3/21	153.21	4409.34
THOMPSON 151	612151	599543.561	3467387.294	4597.62	8/9/13	167.86	4429.76
					10/10/13	167.68	4429.94
					1/16/14	167.19	4430.43
					4/14/14	166.98	4430.64
					7/21/14	167.78	4429.84
					10/22/14	167.56	4430.06
					2/2/15	166.56	4431.06
					5/19/15	166.51	4431.11
					8/3/15	167.09	4430.53
THOMPSON 341	218341	599532.241	3467396.849	4596.73	7/28/17	168.34	4428.39
					1/16/18	168.22	4428.51
					7/26/18	169.23	4427.50
					1/11/19	169.81	4426.92
					7/10/19	170.29	4426.44
					1/15/20	170.62	4426.11
					8/12/20	171.37	4425.36
					1/8/21	172.08	4424.65
					7/29/21	172.82	4423.91

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-02A	522574	604152.059	3472008.794	4808.43	3/4/08	346.62	4461.81
					5/23/08	346.16	4462.27
					8/15/08	353.91	4454.52
					10/30/08	349.45	4458.98
					2/24/09	348.64	4459.79
					5/6/09	349.38	4459.05
					8/12/09	349.13	4459.30
					11/4/09	348.97	4459.46
					3/10/10	348.19	4460.24
					4/6/10	353.86	4454.57
					7/6/10	349.20	4459.23
					2/10/11	347.60	4460.83
					7/13/11	348.14	4460.29
					2/2/12	346.94	4461.49
					8/13/12	344.53	4463.90
					2/14/13	343.50	4464.93
					8/27/13	343.84	4464.59
					2/18/14	341.47	4466.96
					8/12/14	338.50	4469.93
					2/5/15	336.02	4472.41
					9/14/15	334.23	4474.20
					3/16/16	333.52	4474.91
					8/17/16	333.90	4474.53
					3/7/17	335.30	4473.13
					8/1/17	336.32	4472.11
					2/1/18	337.14	4471.29
					7/26/18	337.17	4471.26
					2/11/19	337.53	4470.90
					8/5/19	338.84	4469.59
					2/20/20	338.42	4470.01
					7/20/20	337.15	4471.28
					3/17/21	336.28	4472.15
					7/13/21	336.80	4471.63
TM-03	522575	606366.130	3473711.046	4897.85	3/12/08	127.14	4770.71
					5/20/08	127.40	4770.45
					8/6/08	128.02	4769.83
					11/12/08	128.00	4769.85
					2/26/09	126.94	4770.91
					5/13/09	113.86	4783.99
					8/18/09	128.80	4769.05
					11/10/09	125.38	4772.47
					3/2/10	128.02	4769.83
					4/14/10	130.56	4767.29
					7/7/10	131.25	4766.60
					2/1/12	135.04	4762.81

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-06 MILLER	522695	606055.975	3468376.658	4707.88	2/26/08	158.78	4549.10
					5/20/08	158.76	4549.12
					8/4/08	158.80	4549.08
					10/29/08	158.85	4549.03
					2/16/09	159.28	4548.60
					5/13/09	158.81	4549.07
					8/18/09	158.91	4548.97
					11/12/09	158.96	4548.92
					3/8/10	158.99	4548.89
					4/14/10	159.02	4548.86
					7/2/10	159.13	4548.75
					7/21/11	159.88	4548.00
					7/9/12	161.40	4546.48
					2/14/13	161.05	4546.83
					8/19/13	161.30	4546.58
					7/21/14	162.60	4545.28
					2/5/15	162.36	4545.52
					9/10/15	162.94	4544.94
					3/16/16	162.14	4545.74
					9/21/16	163.08	4544.80
					3/7/17	162.83	4545.05
					7/26/17	163.47	4544.41
					2/5/18	163.46	4544.42
					7/16/18	163.96	4543.92
					1/29/19	162.32	4545.56
					7/31/19	164.23	4543.65
					2/20/20	163.15	4544.73
					8/10/20	166.27	4541.61
					3/15/21	164.10	4543.78
					7/21/21	164.61	4543.27
TM-07	522576	603007.461	3471919.441	4769.20	3/17/21	338.20	4431.00
					8/16/21	338.58	4430.62
TM-10 USBP	522696	601586.268	3471816.397	4741.18	3/15/12	279.30	4461.88
					4/24/12	279.03	4462.15
					9/13/12	278.30	4462.88
					10/19/12	277.45	4463.73
					3/7/13	276.55	4464.63
					4/17/13	276.42	4464.76
					7/23/13	275.99	4465.19
					11/6/13	254.20	4486.98
					1/15/14	262.00	4479.18
					5/15/14	269.39	4471.79
					7/15/14	271.03	4470.15
					10/16/14	235.11	4506.07
					1/28/15	252.47	4488.71
					7/24/15	264.53	4476.65
					2/2/16	262.66	4478.52
					7/13/16	269.35	4471.83
					1/27/17	259.58	4481.60
					7/17/17	267.41	4473.77
					1/8/18	255.19	4485.99
					7/9/18	266.18	4475.00
					1/8/19	247.36	4493.82
					7/16/19	259.23	4481.95
					1/6/20	239.32	4501.86
					8/3/20	256.07	4485.11
					1/5/21	261.10	4480.08
					7/12/21	267.17	4474.01

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-15 MILLER	522699	599618.715	3471425.631	4729.25	3/20/17	300.54	4428.71
					8/1/17	300.76	4428.49
					7/18/18	301.32	4427.93
					8/19/19	301.92	4427.33
					8/24/20	302.43	4426.82
					7/12/21	303.14	4426.11
TM-16	522578	605588.075	3469842.199	4717.71	3/5/08	81.00	4636.71
					5/22/08	81.24	4636.47
					8/6/08	81.65	4636.06
					11/5/08	81.75	4635.96
					2/26/09	81.88	4635.83
					5/13/09	82.01	4635.70
					8/19/09	82.37	4635.34
					11/10/09	82.83	4634.88
					3/2/10	83.09	4634.62
					4/14/10	83.22	4634.49
					7/2/10	83.51	4634.20
					7/14/11	80.41	4637.30
					7/9/12	72.55	4645.16
					8/15/13	61.42	4656.29
					8/4/14	62.55	4655.16
					2/5/15	58.80	4658.91
					9/9/15	60.06	4657.65
					3/16/16	60.43	4657.28
					8/25/16	59.24	4658.47
					3/7/17	61.08	4656.63
					7/12/17	62.59	4655.12
					2/1/18	60.18	4657.53
					8/7/18	62.44	4655.27
					2/11/19	58.90	4658.81
					7/30/19	61.35	4656.36
					2/20/20	58.16	4659.55
					7/20/20	60.72	4656.99
					2/2/21	61.37	4656.34
					7/15/21	63.20	4654.51
TM-19A	522581	602458.710	3469197.426	4645.87	3/6/08	199.85	4446.02
					5/22/08	199.50	4446.37
					8/6/08	199.19	4446.68
					11/18/08	199.46	4446.41
					3/3/09	199.81	4446.06
					4/22/09	200.57	4445.30
					8/12/09	201.46	4444.41
					11/4/09	201.16	4444.71
					3/10/10	201.34	4444.53
					4/9/10	201.55	4444.32
					7/7/10	202.35	4443.52
					2/14/11	203.00	4442.87
					7/15/11	203.30	4442.57
					2/2/12	203.84	4442.03
					7/11/12	204.75	4441.12
					10/16/12	205.02	4440.85
					2/15/13	205.30	4440.57
					9/4/13	205.73	4440.14
					2/12/14	207.47	4438.40
					7/21/14	210.56	4435.31
					9/10/15	206.48	4439.39
					8/18/16	207.24	4438.63
					7/26/17	207.54	4438.33
					7/25/18	208.53	4437.34
					8/7/19	209.33	4436.54
					8/17/20	211.36	4434.51
					8/18/21	211.16	4434.71

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-42	562554	603698.271	3469104.903	4666.67	3/5/08	211.04	4455.63
					5/22/08	210.98	4455.69
					8/6/08	211.55	4455.12
					11/6/08	207.05	4459.62
					2/18/09	212.31	4454.36
					5/7/09	212.37	4454.30
					8/18/09	212.77	4453.90
					11/3/09	213.05	4453.62
					2/24/10	213.36	4453.31
					4/19/10	213.51	4453.16
					7/2/10	213.52	4453.15
					7/12/11	214.62	4452.05
					7/11/12	216.10	4450.57
					2/12/13	216.55	4450.12
					8/28/13	217.38	4449.29
					7/21/14	218.33	4448.34
					2/4/15	218.87	4447.80
					9/10/15	219.31	4447.36
					3/16/16	219.55	4447.12
					8/18/16	219.89	4446.78
					3/7/17	220.35	4446.32
					7/26/17	220.54	4446.13
					2/5/18	220.81	4445.86
					8/6/18	221.12	4445.55
					1/29/19	221.36	4445.31
					8/7/19	221.71	4444.96
					2/20/20	222.15	4444.52
					8/10/20	222.31	4444.36
					3/15/21	222.60	4444.07
					7/21/21	222.82	4443.85
TVI 236	802236	600552.215	3467978.431	4561.98	5/7/08	123.30	4438.68
					7/15/08	121.55	4440.43
					10/15/08	122.35	4439.63
					2/11/09	121.28	4440.70
					4/17/09	122.73	4439.25
					7/21/09	123.96	4438.02
					10/19/09	123.88	4438.10
					2/2/10	122.26	4439.72
					4/23/10	122.70	4439.28
					7/15/10	125.08	4436.90
					7/15/11	127.23	4434.75
					7/16/12	127.81	4434.17
					10/9/12	128.45	4433.53
					7/18/13	127.38	4434.60
					7/16/14	129.24	4432.74
					2/2/15	126.81	4435.17
					5/19/15	128.38	4433.60
					7/30/15	128.31	4433.67
					10/7/15	127.26	4434.72
					1/12/16	126.49	4435.49
					7/20/16	128.90	4433.08
					9/26/16	128.26	4433.72
					1/27/17	128.57	4433.41
					7/31/17	128.59	4433.39
					1/17/18	129.66	4432.32
					7/27/18	130.16	4431.82
					1/16/19	130.67	4431.31
					7/24/19	130.87	4431.11
					1/21/20	130.92	4431.06
					8/11/20	131.43	4430.55
					1/12/21	132.30	4429.68
					7/21/21	132.88	4429.10

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TVI 713	567713	600729.095	3468412.946	4567.22	5/7/08	127.10	4440.12
					7/14/08	126.30	4440.92
					10/15/08	130.00	4437.22
					2/11/09	149.87	4417.35
					4/17/09	126.73	4440.49
					7/21/09	127.36	4439.86
					10/19/09	127.79	4439.43
					2/2/10	126.71	4440.51
					4/23/10	127.53	4439.69
					7/15/10	129.14	4438.08
					10/20/10	130.84	4436.38
					1/20/11	134.36	4432.86
					4/11/11	135.72	4431.50
					7/15/11	131.61	4435.61
					10/12/11	130.33	4436.89
					2/3/12	130.01	4437.21
					4/25/12	131.33	4435.89
					7/16/12	131.97	4435.25
					10/9/12	132.16	4435.06
					2/6/13	131.14	4436.08
					4/10/13	132.08	4435.14
					7/18/13	131.72	4435.50
					10/8/13	133.10	4434.12
					1/9/14	132.37	4434.85
					4/9/14	132.93	4434.29
					7/16/14	132.57	4434.65
					10/9/14	132.29	4434.93
					1/29/15	132.01	4435.21
					5/18/15	132.34	4434.88
					7/30/15	132.71	4434.51
					10/7/15	132.00	4435.22
					1/12/16	131.34	4435.88
					7/14/16	133.11	4434.11
					1/27/17	132.88	4434.34
					7/13/17	134.08	4433.14
					1/10/18	134.24	4432.98
					7/12/18	134.83	4432.39
					1/10/19	134.87	4432.35
					7/18/19	135.59	4431.63
					3/23/20	135.43	4431.79
					8/6/20	135.81	4431.41
					1/7/21	136.57	4430.65
					7/15/21	137.15	4430.07

TABLE 4
Compilation of Groundwater Elevation Data

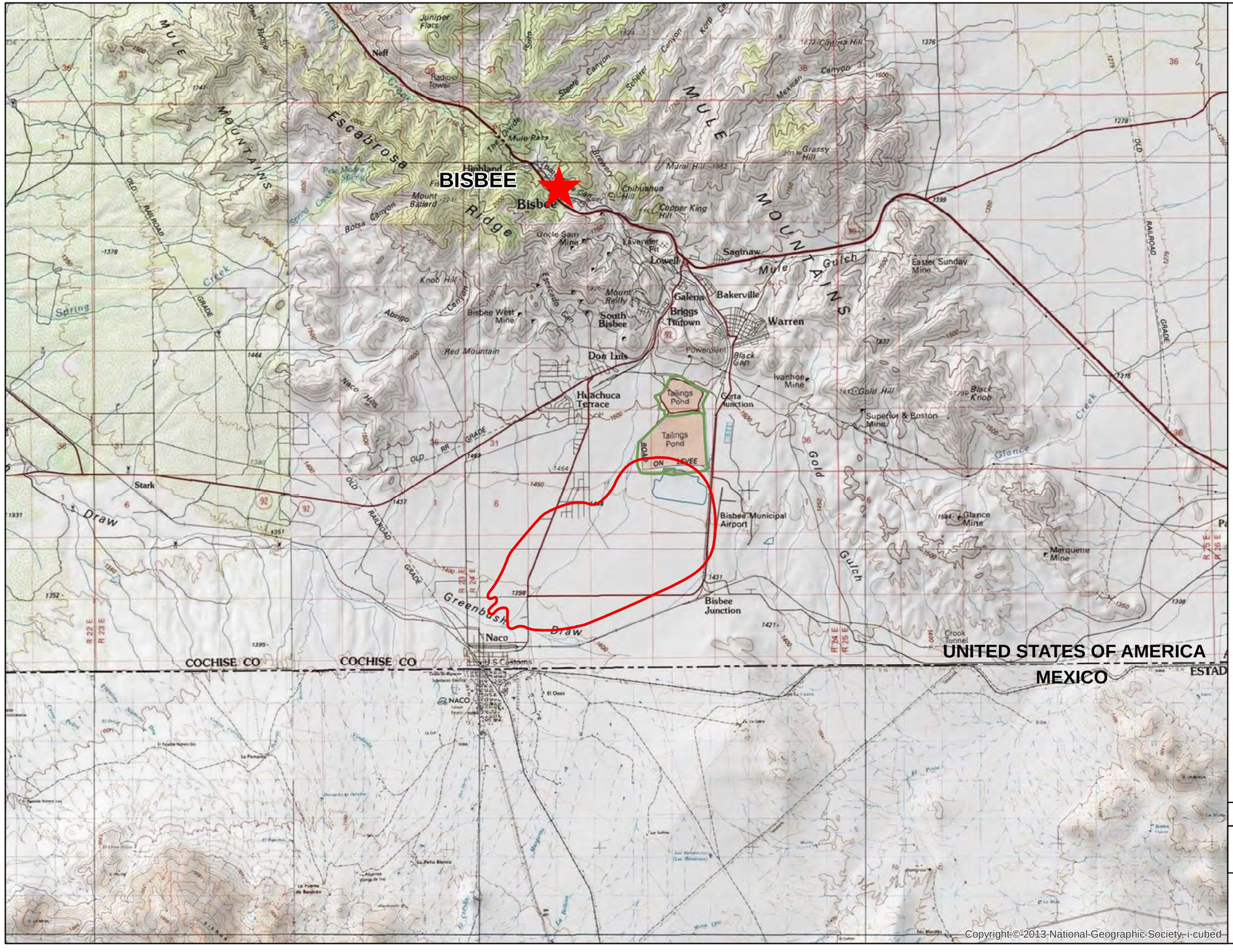
Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
WEISKOPF 802	641802	601154.951	3468658.855	4586.89	2/15/08	143.31	4443.58
					5/7/08	143.90	4442.99
					7/16/08	144.22	4442.67
					10/28/08	145.81	4441.08
					1/29/09	143.99	4442.90
					4/15/09	144.38	4442.51
					7/15/09	144.99	4441.90
					10/15/09	145.66	4441.23
					2/2/10	145.28	4441.61
					4/22/10	145.72	4441.17
					7/19/10	146.46	4440.43
					10/20/10	147.11	4439.78
					1/17/11	146.72	4440.17
					4/11/11	146.31	4440.58
					8/26/11	148.06	4438.83
					10/13/11	148.30	4438.59
					2/1/12	148.23	4438.66
					4/25/12	148.82	4438.07
					7/13/12	149.79	4437.10
					10/11/12	149.73	4437.16
					1/16/13	149.49	4437.40
					4/17/13	150.16	4436.73
					7/18/13	150.24	4436.65
					10/17/13	150.69	4436.20
					1/16/14	150.08	4436.81
					4/11/14	150.75	4436.14
					7/18/14	150.85	4436.04
					10/9/14	150.89	4436.00
					2/2/15	150.01	4436.88
					5/18/15	150.25	4436.64
					8/4/15	150.72	4436.17
					10/8/15	150.47	4436.42
					1/12/16	151.01	4435.88
					7/26/16	150.95	4435.94
					1/16/17	151.31	4435.58
					7/24/17	151.59	4435.30
					1/12/18	152.06	4434.83
					7/16/18	152.74	4434.15
					1/14/19	153.39	4433.50
					7/23/19	153.77	4433.12
					1/16/20	154.08	4432.81
					7/23/20	154.23	4432.66
					1/11/21	154.86	4432.03
					7/26/21	155.57	4431.32
WEISKOPF 897	220897	601096.780	3468647.358	4585.70	12/6/12	149.27	4436.43
					1/16/13	148.70	4437.00
					4/17/13	149.80	4435.90
					7/18/13	150.15	4435.55
					10/17/13	150.38	4435.32
					1/16/14	149.78	4435.92
					4/11/14	150.50	4435.20
					7/18/14	150.55	4435.15
					10/9/14	150.34	4435.36
					5/18/15	149.95	4435.75
					8/4/15	150.31	4435.39
					7/26/16	150.63	4435.07
					7/24/17	151.52	4434.18
					7/16/18	152.37	4433.33
					7/23/19	153.41	4432.29
					7/23/20	154.84	4430.86
					7/26/21	155.25	4430.45
WMD-2011-03M	913037	605360.830	3470671.273	4746.28	2/2/12	226.66	4519.62

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ZANDER	205126	599678.880	3467998.486	4580.94	2/4/08	144.85	4436.09
					5/6/08	145.33	4435.61
					7/16/08	146.40	4434.54
					10/28/08	146.01	4434.93
					2/10/09	144.83	4436.11
					4/16/09	144.94	4436.00
					7/14/09	146.14	4434.80
					10/13/09	146.77	4434.17
					1/26/10	146.34	4434.60
					4/22/10	146.27	4434.67
					7/21/10	147.81	4433.13
					10/19/10	147.80	4433.14
					1/18/11	147.52	4433.42
					4/6/11	147.84	4433.10
					7/13/11	148.91	4432.03
					10/12/11	149.50	4431.44
					1/31/12	149.31	4431.63
					4/10/12	149.64	4431.30
					7/17/12	150.63	4430.31
					10/8/12	150.92	4430.02
					1/10/13	150.89	4430.05
					4/18/13	151.36	4429.58
					7/15/13	152.14	4428.80
					10/7/13	151.65	4429.29
					1/7/14	151.10	4429.84
					4/9/14	150.81	4430.13
					7/17/14	152.02	4428.92
					8/3/15	150.65	4430.29
					10/8/15	150.10	4430.84
					1/12/16	149.46	4431.48
					7/15/16	151.25	4429.69
					1/27/17	152.14	4428.80
					7/24/17	152.63	4428.31
					1/16/18	152.03	4428.91
					7/24/18	153.67	4427.27
					1/11/19	154.15	4426.79
					7/16/19	154.82	4426.12
					1/17/20	154.93	4426.01
					8/11/20	155.71	4425.23
					1/12/21	156.33	4424.61
					7/27/21	157.15	4423.79

Notes:
35-71891 = ADWR 35 Database
ADWR = Arizona Department of Water Resources
ft amsl = feet above mean sea level
NR = No Record
UTM = Universal Transverse Mercator Zone 12, North American Datum 1983 (NAD83)
[1] Depth to water measurement provided by Arizona Water Company
[2] Preliminary data will be updated when well survey is conducted
[3] Depth to water measurement provided by Naco Water Company
[4] Well previously identified as ROGERS 803

FIGURES



Legend

- CTSA Facility
- Estimated 250 mg/L Sulfate Concentration Contour for Third Quarter 2021

Miles

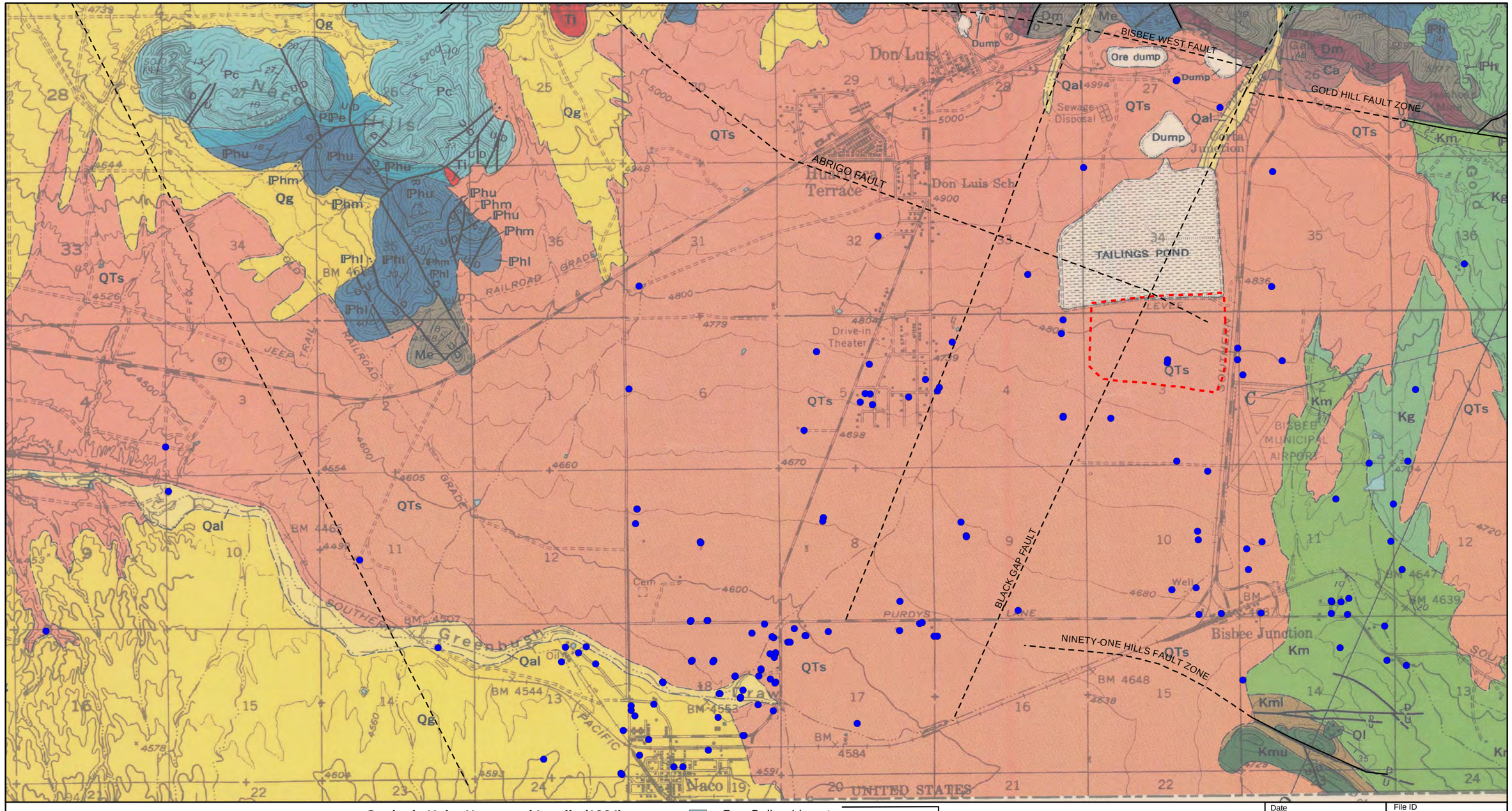
0 1.5 3

Notes:
Projection: UTM Zone 12N NAD83

Date	File ID
2/1/2022	055038-526A

CLEAR CREEK ASSOCIATES

FIGURE 1
PROJECT LOCATION MAP



Legend

- Monitoring Location
- Fault (dashed where inferred)
- Former Evaporation Ponds

Geologic Unit - Hayes and Landis (1964)

Basin Fill
- Qal - Quaternary Alluvium
- Qg - Quaternary Gravel
- QTs - Quaternary Tertiary sediment
- Ti - Tertiary Intrusive

Bisbee Group
- Kc - Cintura Formation (not shown)
- Kmu - Upper Mural Limestone
- Kml - Lower Mural Limestone
- Km - Morita Formation
- Kg - Glance Conglomerate

Paleozoic Sedimentary Formations
- Pc - Colina Limestone
- PPe - Earp Formation
- Phu, Phm, Phl - Horquilla Limestone
- Me - Escabrosa Limestone
- Dm - Martin Limestone
- Ca - Abrigo Limestone

See Figure 3 for Monitoring Location Names

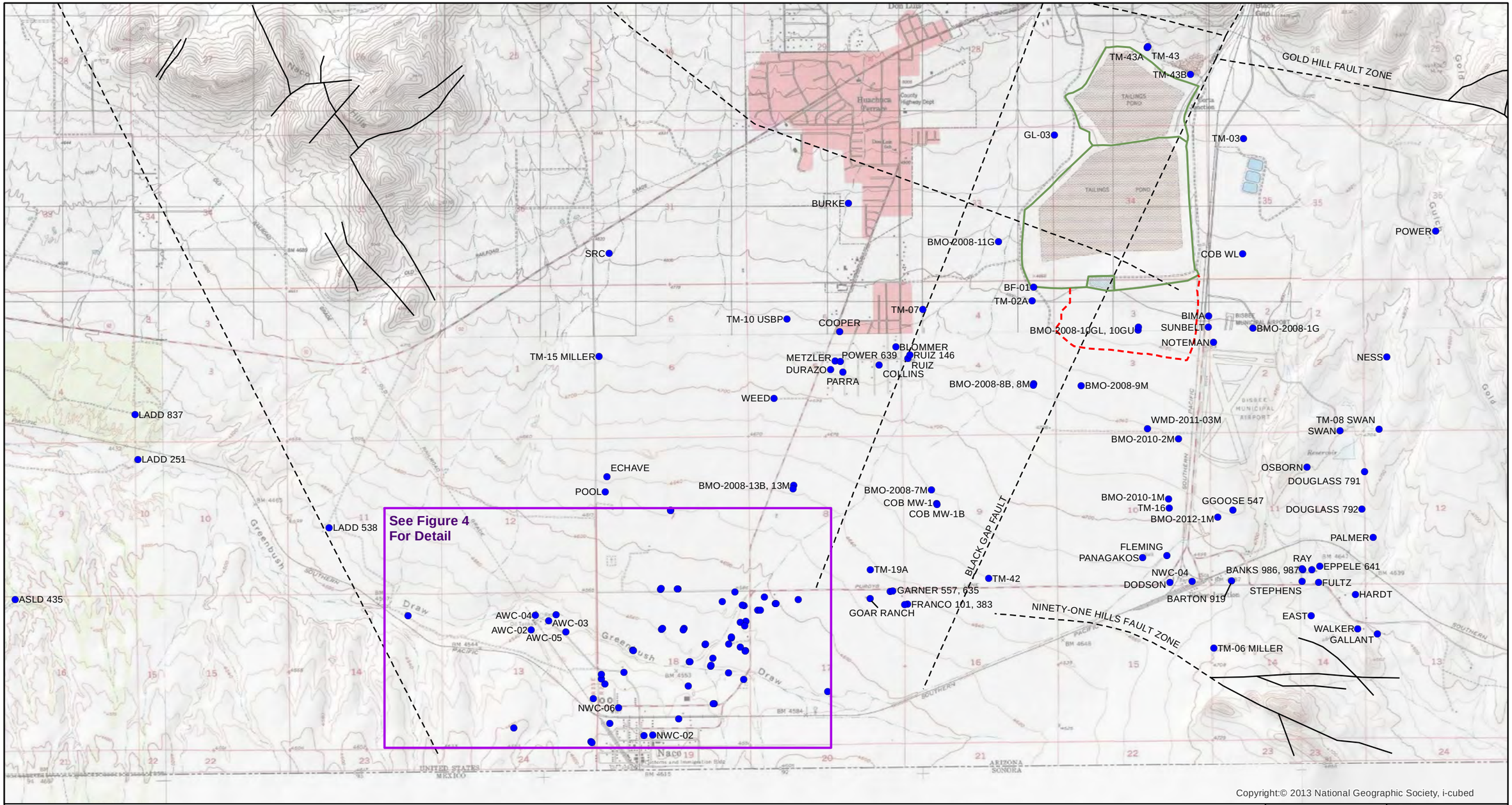
Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N NAD83
Geology reprinted from Hayes and Landis (1964) USGS Miscellaneous Geologic Investigations I-418

Date 12/21/2021
File ID 055038-567

CLEAR CREEK ASSOCIATES

FIGURE 2
GEOLOGIC MAP
WITH MONITORING LOCATIONS



Legend

- Monitoring Location
- Former Evaporation Ponds
- CTSA Facility
- Fault (dashed where inferred)

Scale (Feet)

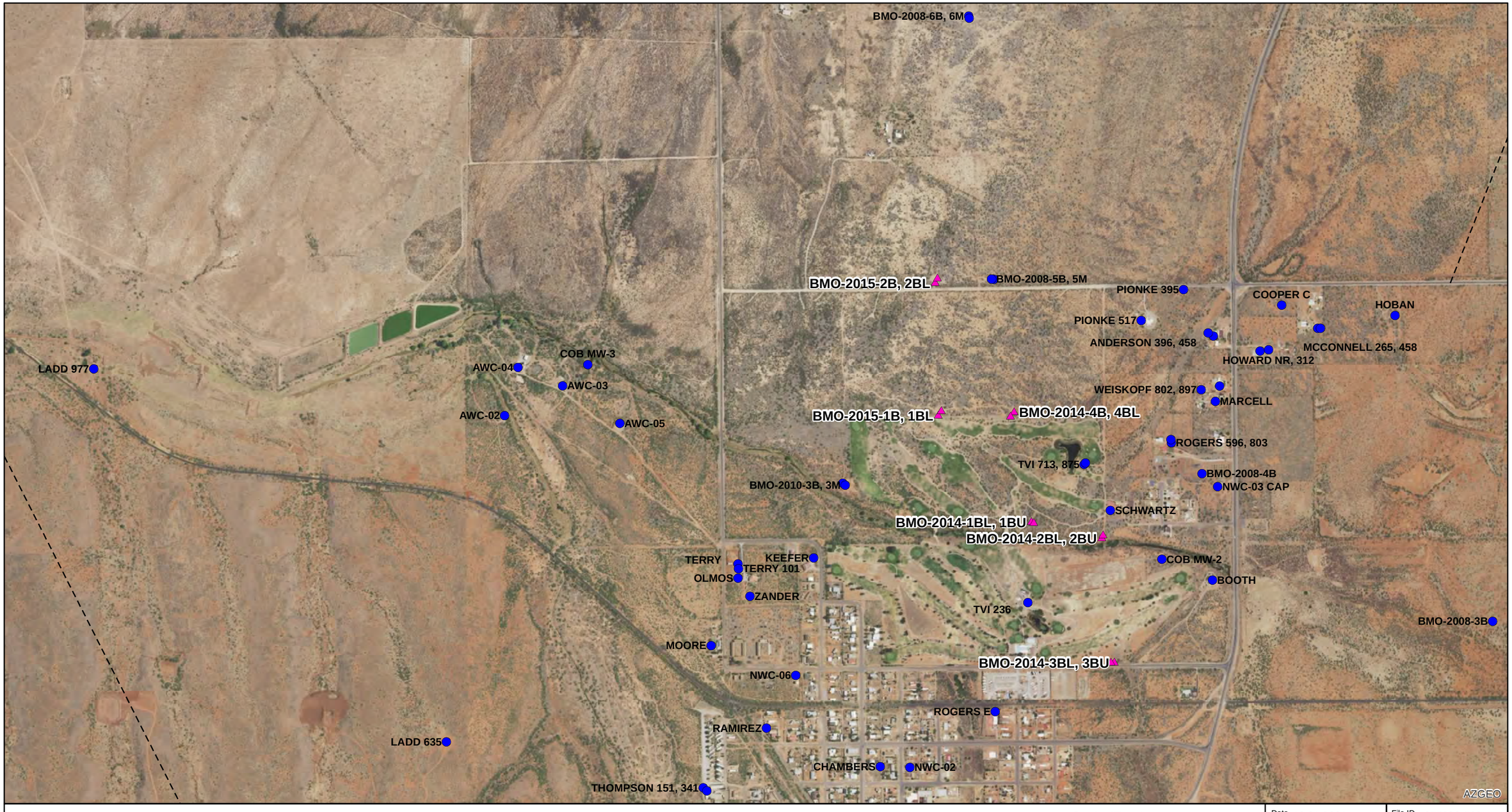
0 3,000 6,000

Projection: UTM Zone
12N NAD83

Date	File ID
12/21/2021	055038-568

CLEAR CREEK ASSOCIATES

FIGURE 3
GROUNDWATER
MONITORING LOCATIONS



Legend

- Expanded Goundwater Monitoring Program Well
- Existing Well

Scale (Feet)

0 1,000 2,000

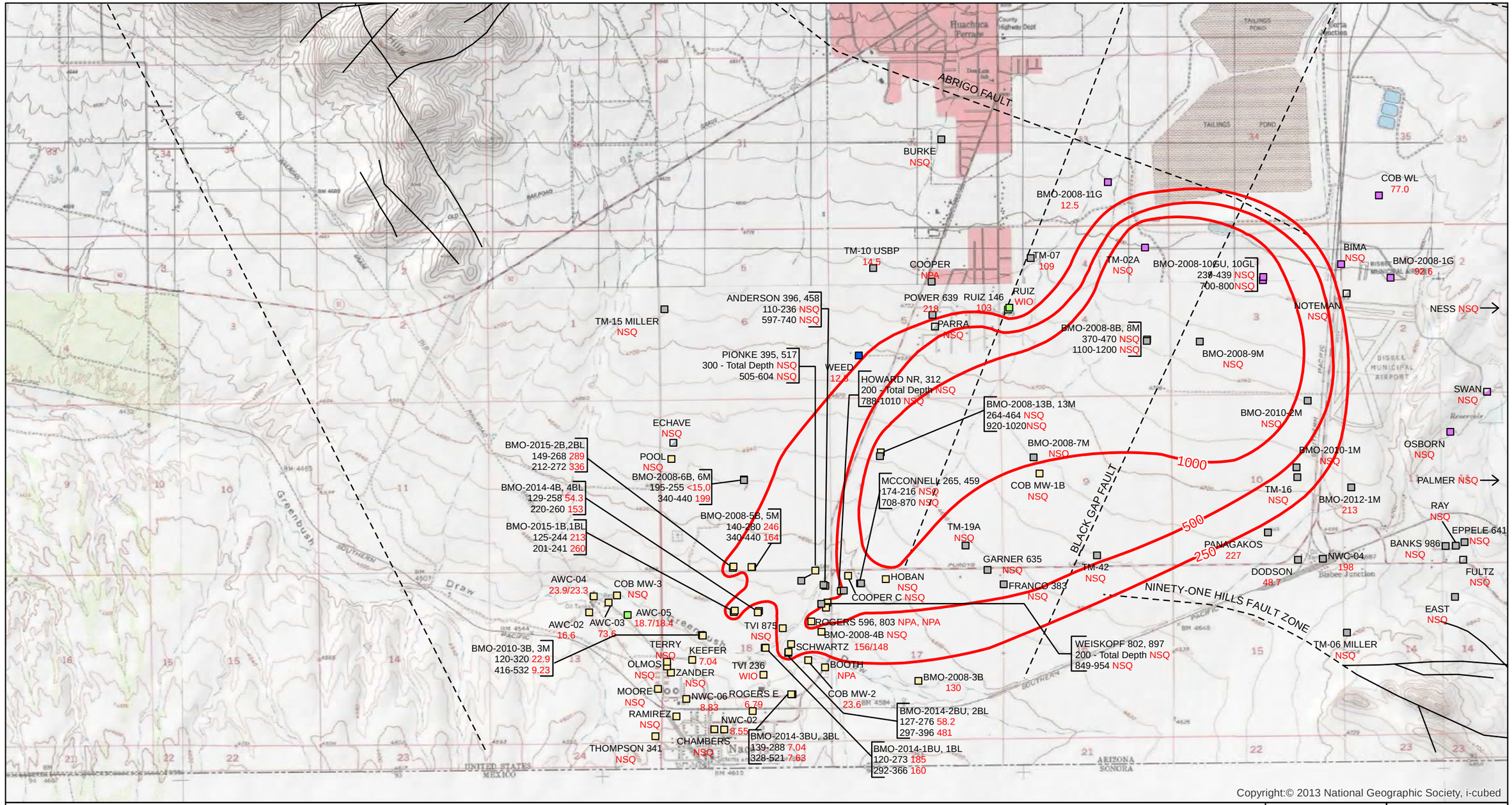
Projection: UTM Zone 12N
NAD83

Date 12/21/2021

File ID 055038-569

CLEAR CREEK ASSOCIATES

FIGURE 4
NACO AREA
WELL SITES



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Legend

- NWC-02 Well ID
- 8.55 SO4 Concentration (mg/L) Duplicate results separated by "/"
- SO4 Concentration Contour
- Fault (dashed where inferred)

Co-located Wells

- Well ID
- Screen (ft bls) Sulfate Concentration (mg/L)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

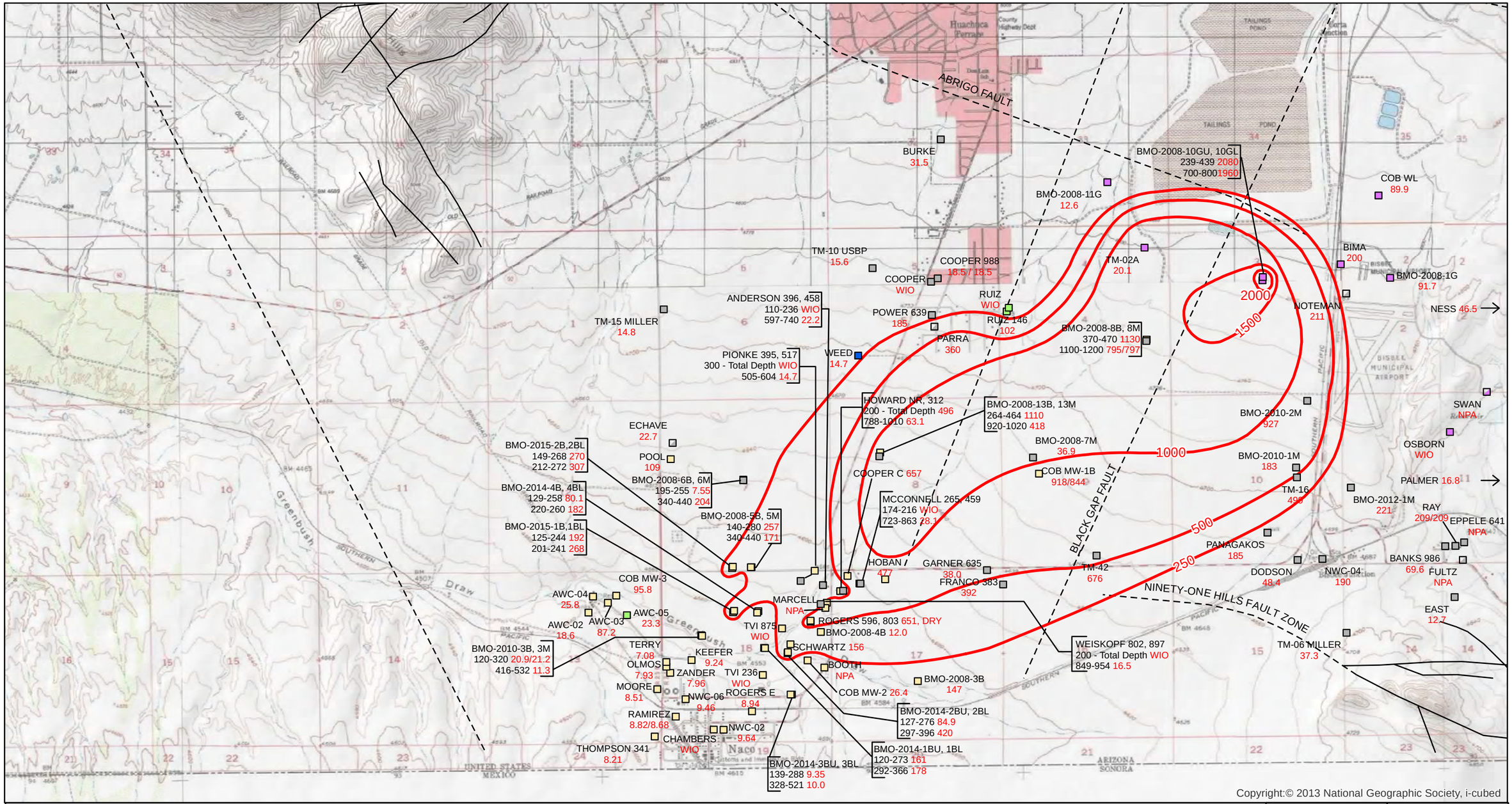
NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
mg/L = milligrams per liter
ft bls = feet below land surface
Sulfate contours are based on represented and historical data.
Projection: UTM Zone 12N NAD83

Scale (Feet)
0 3,000 6,000

Date 7/2/2021
File ID 055038-559

CLEAR CREEK ASSOCIATES

FIGURE 5
SULFATE CONCENTRATIONS IN SITE-WIDE GROUNDWATER SAMPLES FOR FIRST QUARTER 2021



Legend

- NWC-02 Well ID
- 9.64 SO4 Concentration (mg/L)
- Duplicate results separated by "/"
- SO4 Concentration Contour
- Fault (dashed where inferred)

Co-located Wells

- Well ID
- Screen (ft bls): Sulfate Levels (mg/L)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Notes:
DRY = Well is dry
ft bls = feet below land surface
mg/L = milligrams per liter
NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
Sulfate contours are based on represented and historical data.

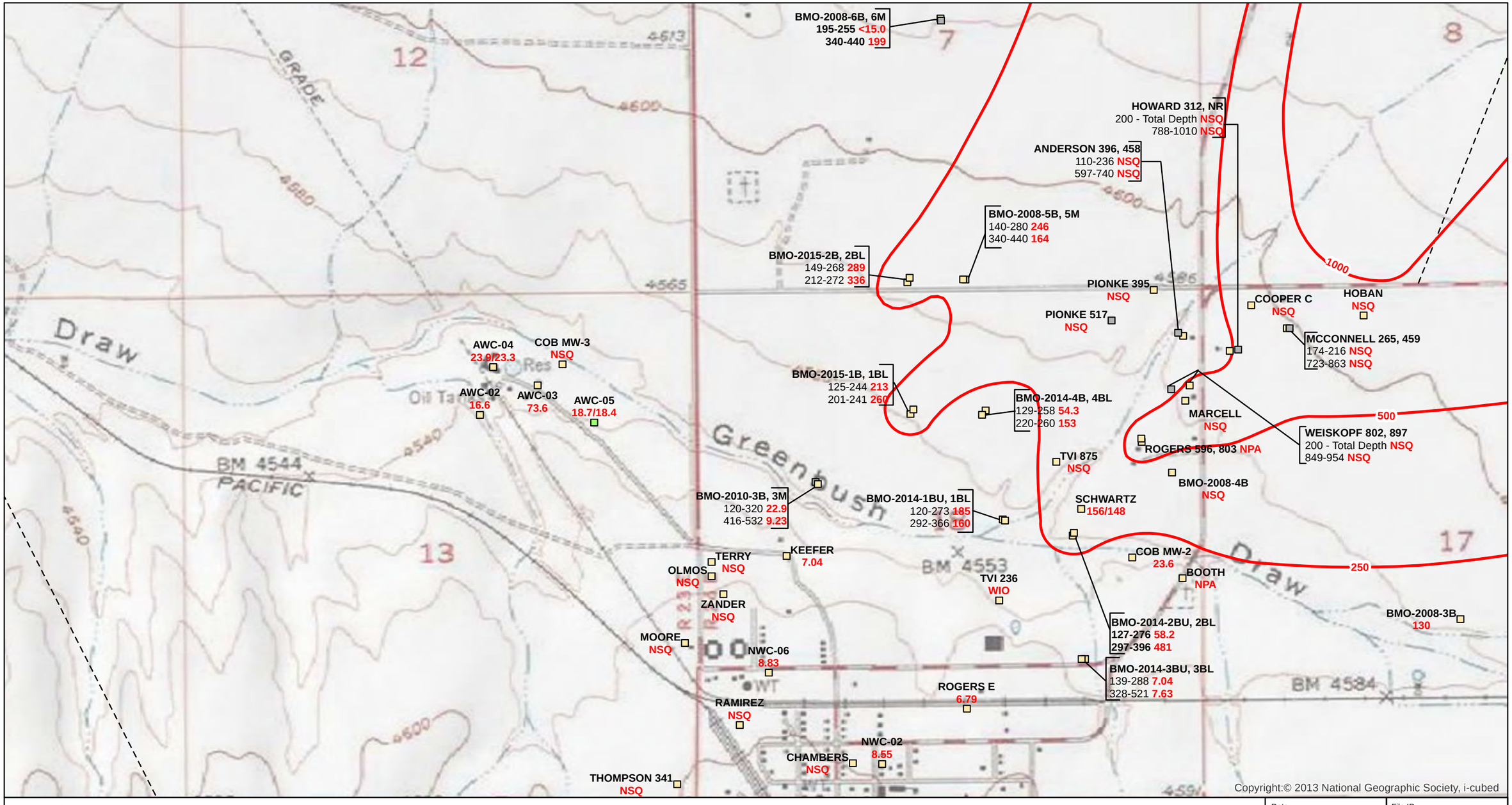
Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N NAD83

Date 2/4/2022
File ID 055038-564

CLEAR CREEK ASSOCIATES

FIGURE 6
SULFATE CONCENTRATIONS IN SITE-WIDE GROUNDWATER SAMPLES FOR THIRD QUARTER 2021



Legend

- **NWC-02** Well ID
- 8.55 Sulfate Concentration (mg/L)
- Duplicate results separated by "/"
- Sulfate Concentration Contour
- Fault (Inferred)

Co-located Wells
- Well ID
- Screen (ft bls) Sulfate Concentration (mg/L)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
mg/L = milligrams per liter
ft bls = feet below land surface
Sulfate contours are based on represented and historical data.

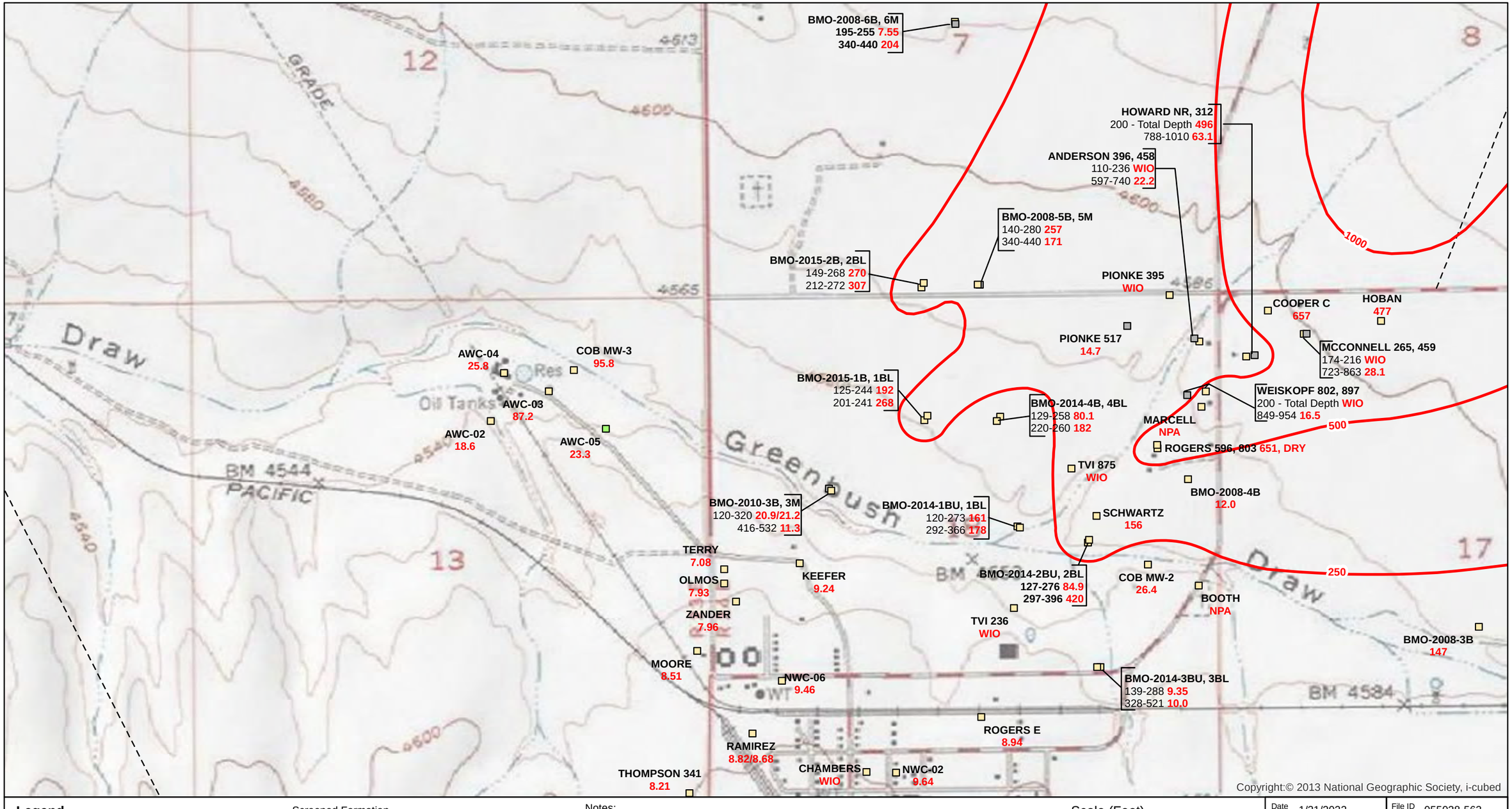
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone12N
NAD83

Date 7/2/2021
File ID 055038-558

CLEAR CREEK ASSOCIATES

FIGURE 7
SULFATE CONCENTRATIONS AT THE WEST EDGE OF THE PLUME FOR FIRST QUARTER 2021



Legend

- **NWC-02** Well ID
- 9.64 Sulfate Concentration (mg/L)
- Duplicate results separated by "/"
- Sulfate Concentration Contour
- Fault (Inferred)

Co-located Wells
- Well ID
- Screen (ft bls): Sulfate Levels (mg/L)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

Notes:
DRY = Well is Dry
ft bls = feet below land surface
mg/L = milligrams per liter
NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
Sulfate contours are based on represented and historical data.

Scale (Feet)
0 1,000 2,000

Projection: UTM Zone 12N NAD83

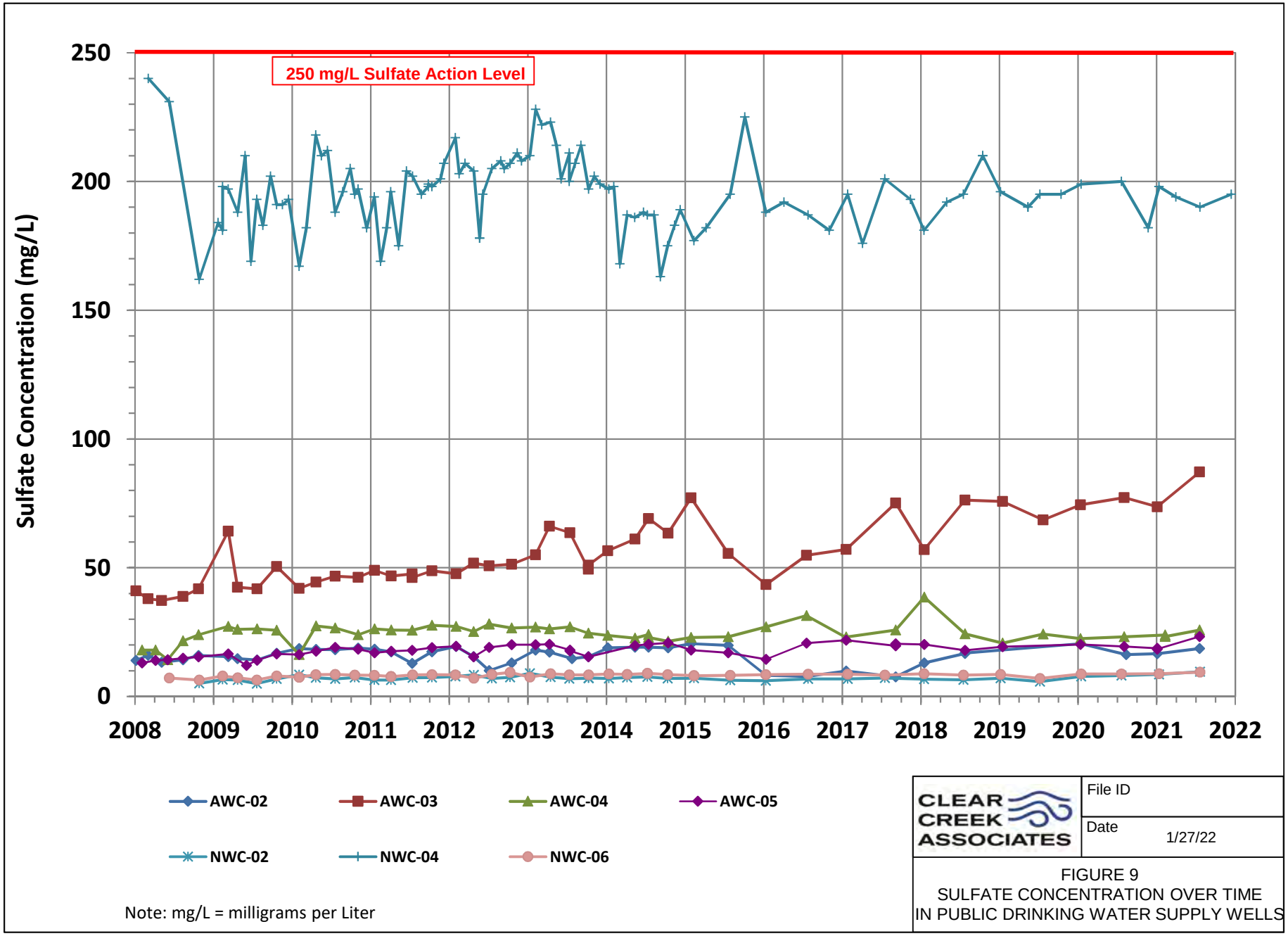
Date 1/31/2022

File ID 055038-563

CLEAR CREEK ASSOCIATES

FIGURE 8
SULFATE CONCENTRATIONS AT THE WEST EDGE OF THE PLUME FOR THIRD QUARTER 2021

DRAFT



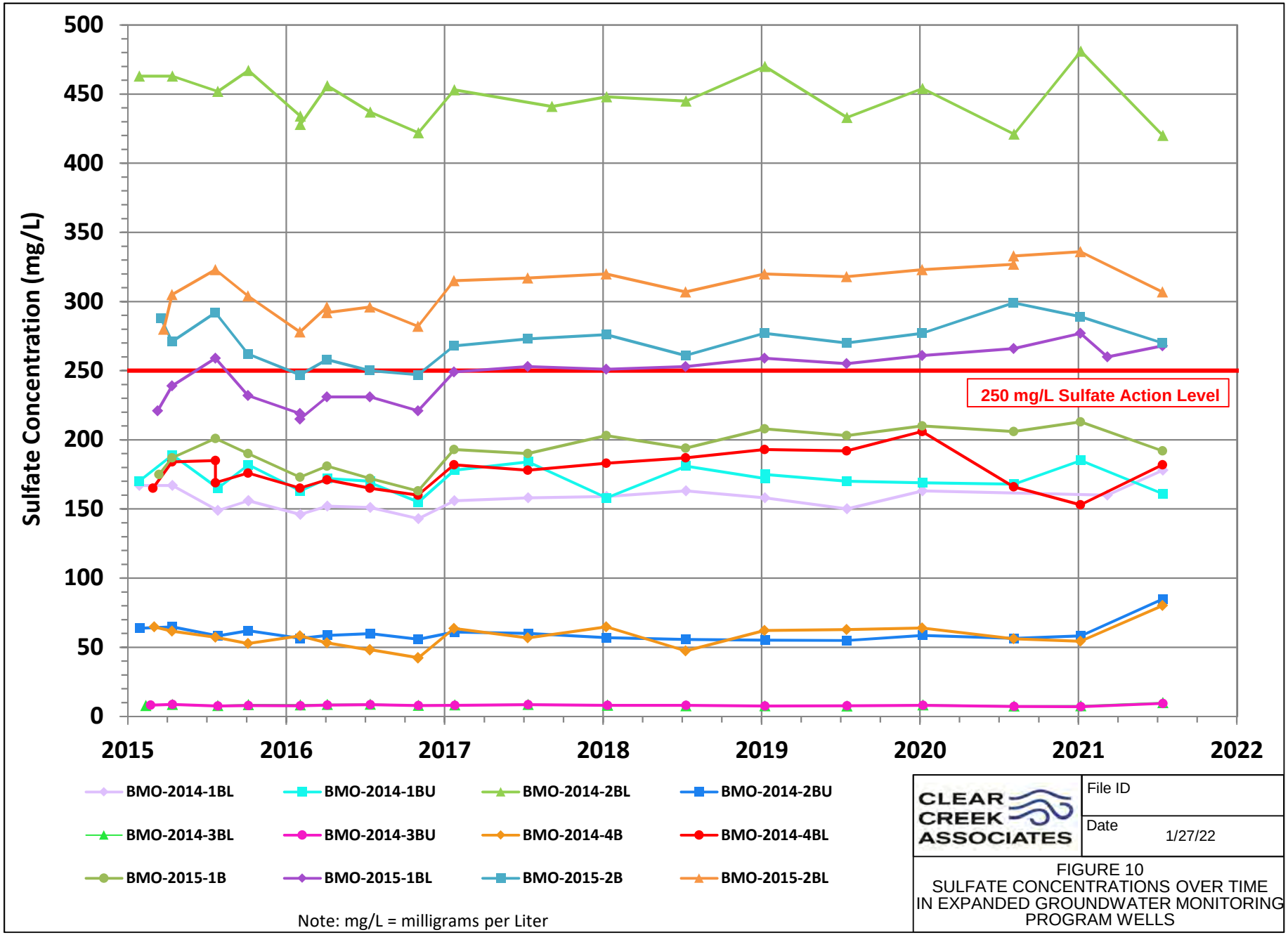
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/27/22

FIGURE 9
SULFATE CONCENTRATION OVER TIME
IN PUBLIC DRINKING WATER SUPPLY WELLS



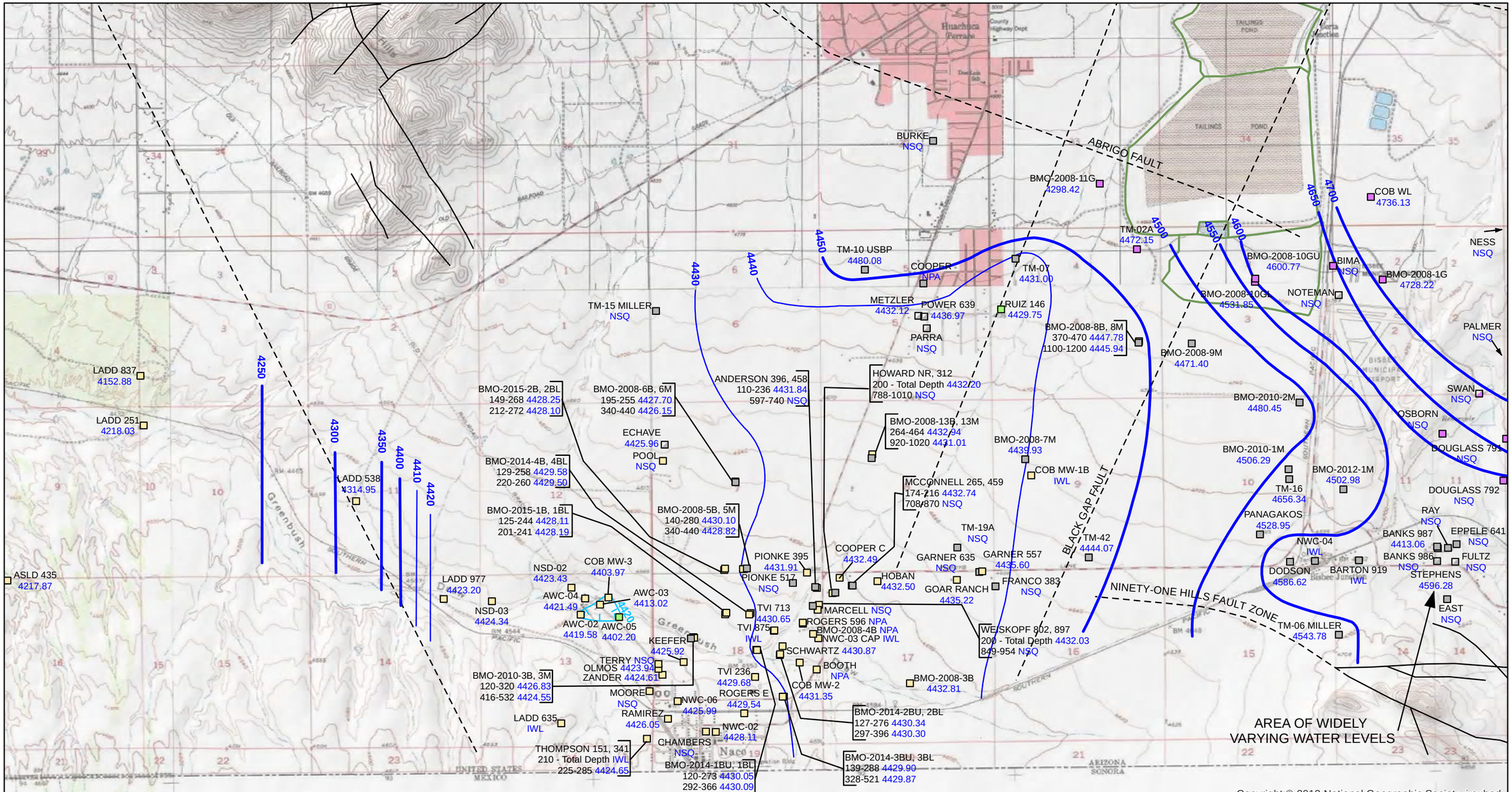
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 1/27/22

FIGURE 10
SULFATE CONCENTRATIONS OVER TIME
IN EXPANDED GROUNDWATER MONITORING
PROGRAM WELLS



Legend

- AWC-05 Well ID
- 4402.20 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contours (10 ft)
- Groundwater Elevation Contours (50 ft)
- (dashed where inferred)
- Groundwater Depression
- Faults (dashed where inferred)
- CTSA Facility
- Co-located Wells
  - Well ID
  - Screen (ft bls) Water Elevation (ft amsl)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated
- Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not Scheduled for Quarter
ft amsl = feet above mean sea level
ft bls = feet below land surface

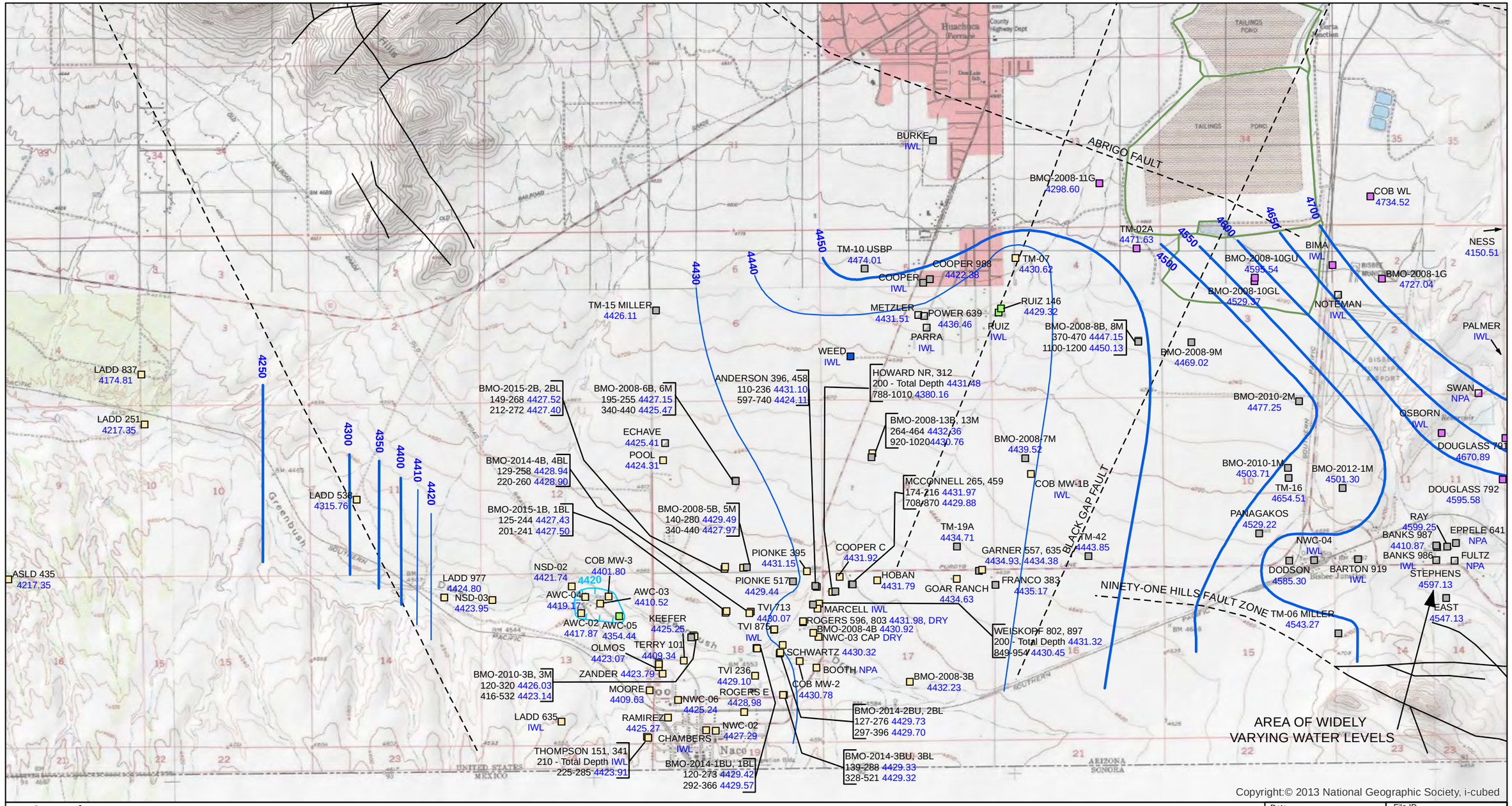
Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N NAD83

Date 2/4/2022
File ID 055038-557

CLEAR CREEK ASSOCIATES

FIGURE 11
SITE-WIDE
GROUNDWATER ELEVATIONS
FOR FIRST QUARTER 2021



Legend

- AWC-05 4354.44 — Well ID; Groundwater Elevation (ft amsl)
- Groundwater Elevation Contours (10 ft)
- Groundwater Elevation Contours (50 ft)
- Groundwater Depression
- Faults (dashed where inferred)
- CTSA Facility

Co-located Wells
- Well ID
- Screen (ft bls): Water Elevation (ft amsl)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

Notes:
IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not Scheduled for Sampling
ft amsl = feet above mean sea level
ft bls = feet below land surface

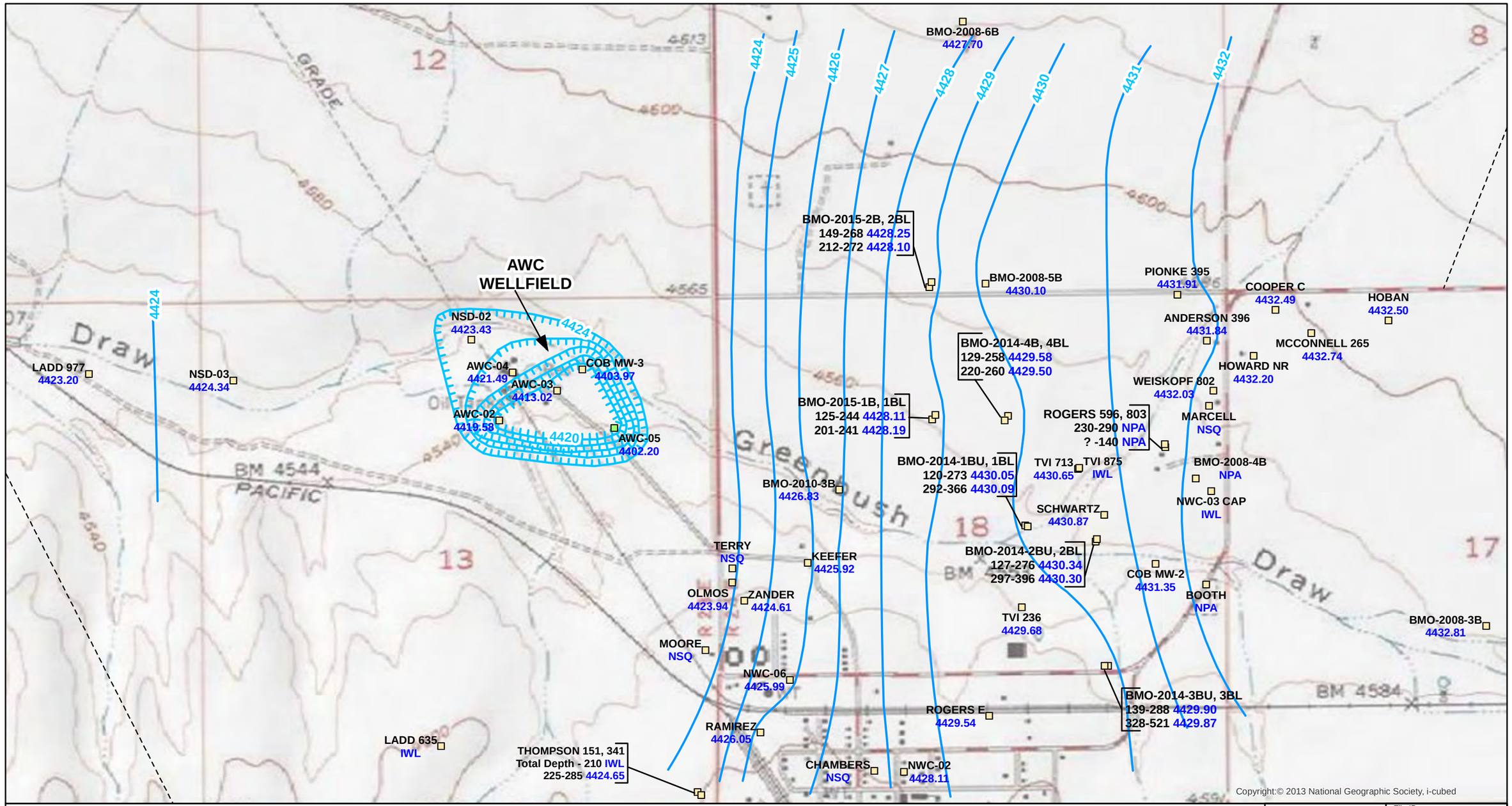
Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N NAD83

Date	File ID
1/17/2022	055038-566

CLEAR CREEK ASSOCIATES

FIGURE 12
SITE-WIDE
GROUNDWATER ELEVATIONS
FOR THIRD QUARTER 2021



Legend

- **AWC-02** Well ID
- 4419.58 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contour (ft amsl)
- Groundwater Elevation Depression Contour (ft amsl)
- Faults (dashed where inferred)

Co-located Wells
- Well ID
- Screen (ft bls) Water Elevation (ft amsl)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not scheduled for Quarter
ft amsl = feet above mean sea level
ft bls = feet below land surface

Scale (Feet)
0 1,000 2,000

Projection: UTM Zone 12N NAD83

Date 1/27/2022

File ID 055038-556

CLEAR CREEK ASSOCIATES

FIGURE 13
BASIN FILL
GROUNDWATER ELEVATIONS
AT THE WEST EDGE OF THE PLUME
FOR FIRST QUARTER 2021

AWC WELLFIELD

BMO-2008-6B 4427.15

BMO-2015-2B, 2BL
149-268 4427.52
212-272 4427.40

BMO-2008-5B 4429.49

BMO-2014-4B, 4BL
129-258 4428.94
220-260 4428.90

BMO-2015-1B, 1BL
125-244 4427.43
201-241 4427.50

BMO-2014-1BU, 1BL
120-273 4429.42
292-366 4429.57

BMO-2014-2BU, 2BL
127-276 4429.73
297-396 4429.70

BMO-2014-3BU, 3BL
139-288 4429.33
328-521 4429.32

NSD-02 4421.74
NSD-03 4423.95
LADD 977 4424.80
AWC-04 4419.17
AWC-03 4410.52
AWC-02 4417.87
COB MW-3 4401.80
AWC-05 4354.44

BMO-2010-3B 4426.03
TERRY 101 4409.34
OLMOS 4423.07
KEEFER 4425.25
ZANDER 4423.79
MOORE 4409.63
NWC-06 4425.24
RAMIREZ 4425.27
LADD 635 IWL
THOMPSON 151, 341
Total Depth - 210 IWL
225-285 4423.91
CHAMBERS IWL
NWC-02 4427.29
ROGERS E 4428.98

PIONKE 395 4431.15
COOPER C 4431.92
HOBAN 4431.79
ANDERSON 396 4431.10
MCCONNELL 265 4431.97
HOWARD NR 4431.48
WEISKOPF 802 4431.32
MARCELL IWL
ROGERS 596, 803
230-290 4431.98
? -140 DRY
TVI 713 4430.07
TVI 875 IWL
BMO-2008-4B 4430.92
NWC-03 CAP DRY
SCHWARTZ 4430.32
COB MW-2 4430.78
BOOTH NPA
TVI 236 4429.10
BMO-2008-3B 4432.23

4422
4418
4423
4424
4425
4426
4427
4428
4429
4430
4431
4432

GRADE
Draw
Greenbush
PACIFIC
BM 4544
BM 4584
12
13
18
17
8

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Legend

- AWC-02 Well ID
- 4417.87 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contour (ft amsl)
- Groundwater Elevation Depression Contour (ft amsl)
- Faults (dashed where inferred)

Co-located Wells
- Well ID
- Screen (ft bls): Water Elevation (ft amsl)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

Notes:
¹Pump was running at time of depth to water measurement
IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not Scheduled for Sampling
ft amsl = feet above mean sea level
ft bls = feet below land surface

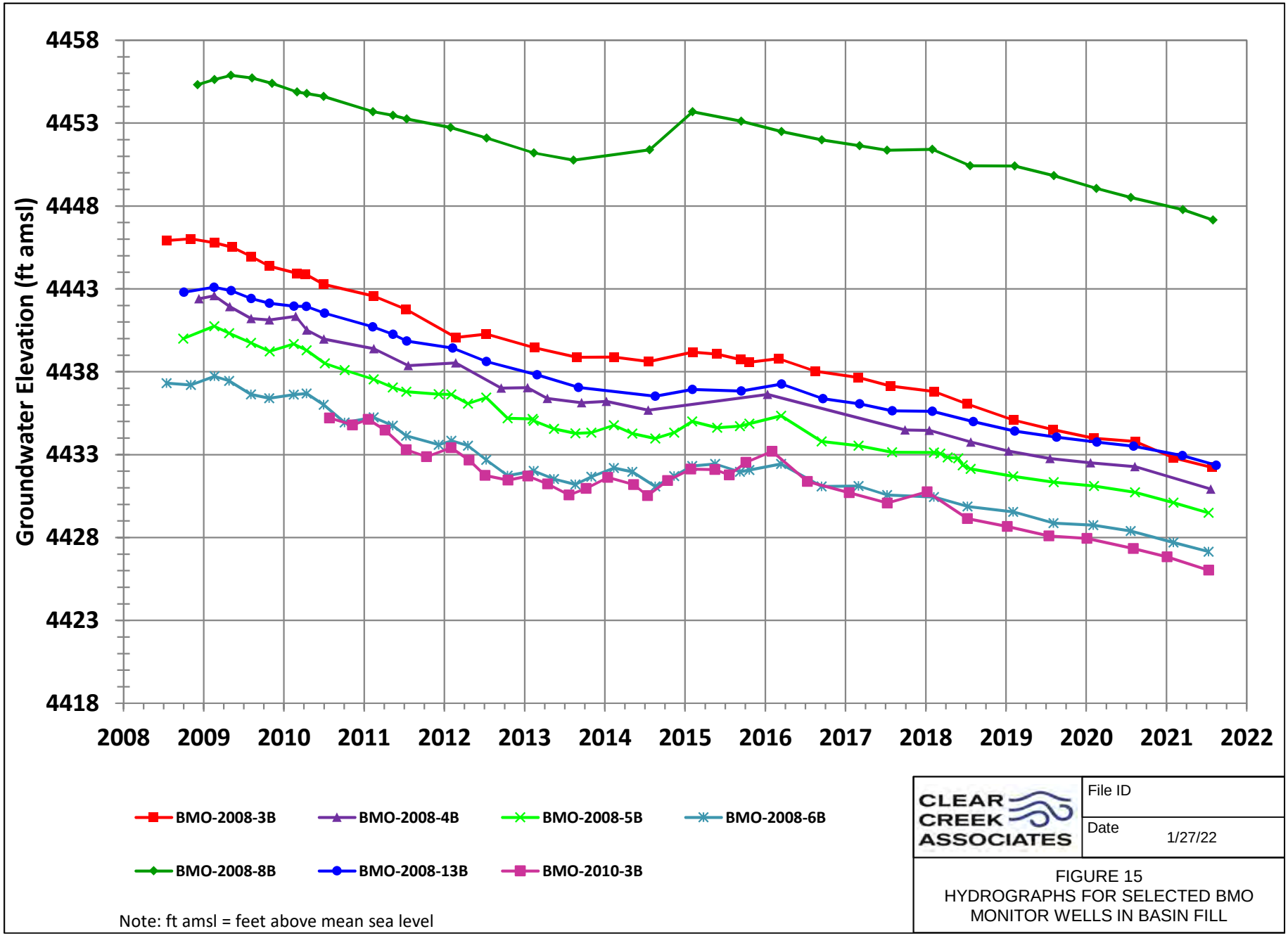
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone 12N NAD83

Date	File ID
2/4/2022	055038-565

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FIGURE 14
BASIN FILL
GROUNDWATER ELEVATIONS
AT THE WEST EDGE OF THE PLUME
FOR THIRD QUARTER 2021



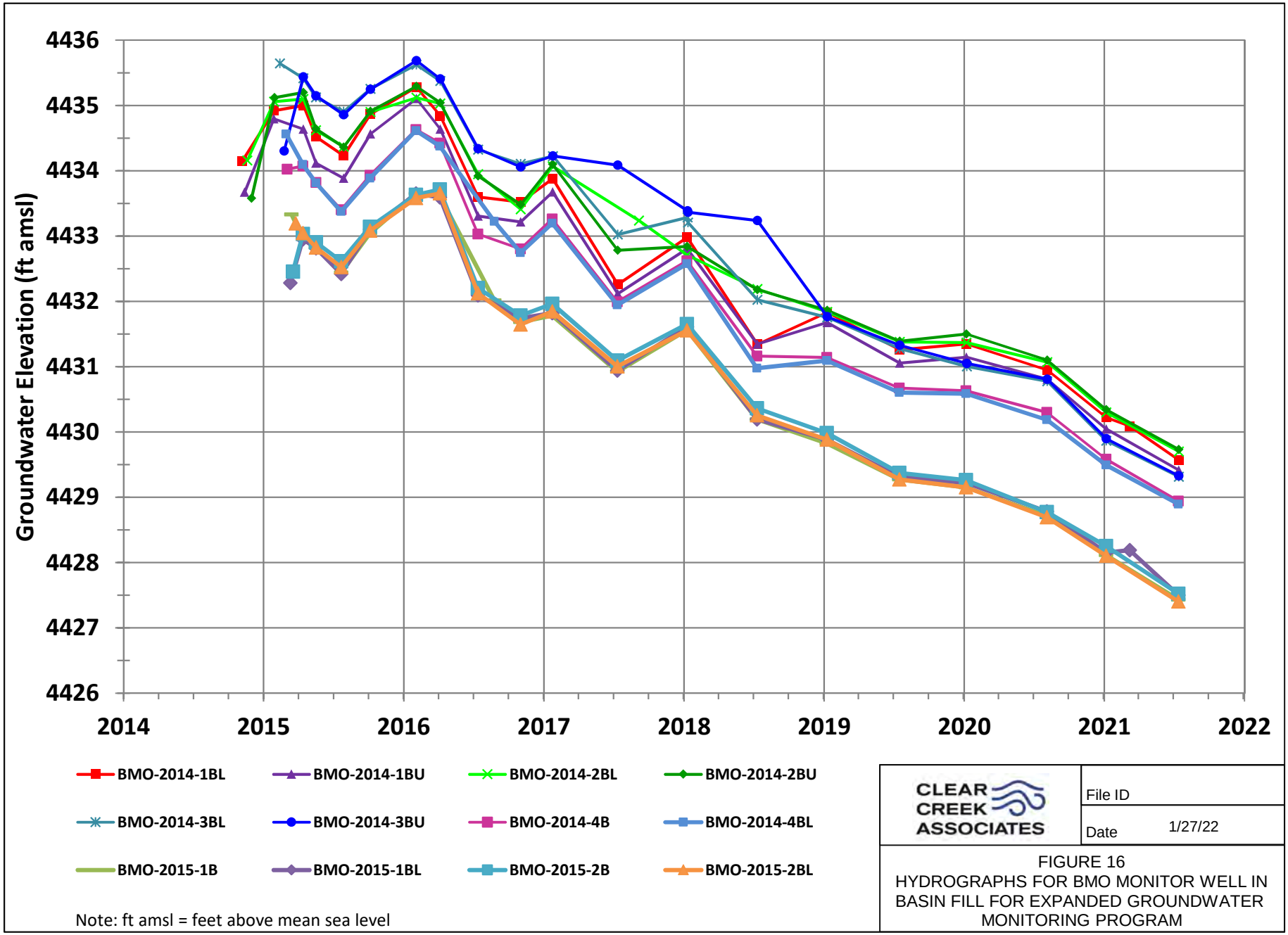
Note: ft amsl = feet above mean sea level

CLEAR CREEK ASSOCIATES

File ID

Date 1/27/22

FIGURE 15
HYDROGRAPHS FOR SELECTED BMO MONITOR WELLS IN BASIN FILL



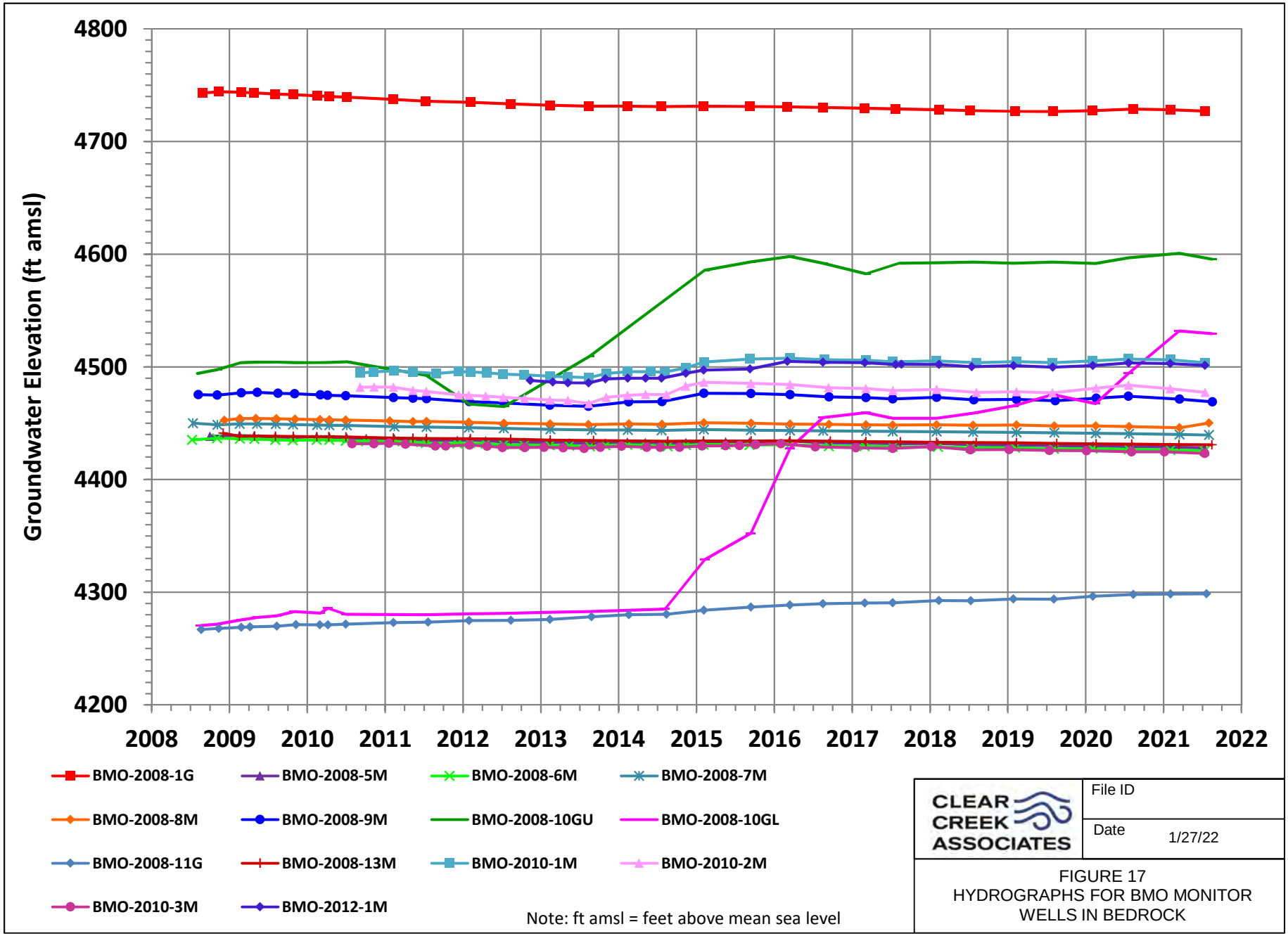
Note: ft amsl = feet above mean sea level

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File ID

Date 1/27/22

FIGURE 16
HYDROGRAPHS FOR BMO MONITOR WELL IN BASIN FILL FOR EXPANDED GROUNDWATER MONITORING PROGRAM


Groundwater Elevation (ft amsl)
4800
4700
4600
4500
4400
4300
4200
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
BMO-2008-1G
BMO-2008-5M
BMO-2008-6M
BMO-2008-7M
BMO-2008-8M
BMO-2008-9M
BMO-2008-10GU
BMO-2008-10GL
BMO-2008-11G
BMO-2008-13M
BMO-2010-1M
BMO-2010-2M
BMO-2010-3M
BMO-2012-1M
Note: ft amsl = feet above mean sea level
CLEAR CREEK ASSOCIATES
File ID
Date 1/27/22
FIGURE 17
HYDROGRAPHS FOR BMO MONITOR WELLS IN BEDROCK

APPENDICES

APPENDIX A

GROUNDWATER SAMPLING FORMS

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: ANDERSON 396 | Weather: Mostly clear, 70s

ADWR No: 613396 | Sampler: JA

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 8

Static Water Level (ft bmp): 156.67

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		W	L	O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-4-21

Well ID: AWC-02 | Weather: clear, 60.

ADWR No: 616586 | Sampler: JA

WELL DATA

Well Depth (ft bls): 333

Casing Diameter (in): 20

Static Water Level (ft bmp): 128.06

Casing Volume (gal): 3,343 x3 = 10,029

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1133	Pump On						
1203	30	78	2,340	7.34	20.6	551.1	
1233	60	78	4,680	7.36	20.6	545.3	
1303	90	78	7,020	7.30	20.8	546.4	
1333	120	78	9,360	7.29	20.8	541.3	CC calibrated pH meter
1343	130	78	10,140	7.27	20.8	543.6	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-02	1345	Poly	250mL	1	300.0	N/P	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-4-21

Well ID: AWC-03 Weather: Clear, 50s

ADWR No: 616585 Sampler: SA

WELL DATA

Well Depth (ft bls): 270

Casing Diameter (in): 16

Static Water Level (ft bmp): 126.50 (using AWC's sounder)

Casing Volume (gal): 1,498 x3 = 4,494

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
(16)	(10.44)
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1102	Pump On						
1105	3	500	2,400	7.42	20.7	532.4	
1108	6	500	4,900	7.43	20.7	524.9	
1111	9	500	7,200	7.42	20.7	523.7	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-03	1114	Poly	250mL	1	300.0	N?	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand Filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 2-9-2021

Well ID: AVC-04 | Weather: clear, 60s

ADWR No: 616584 | Sampler: JA

WELL DATA

Well Depth (ft bls): 337

Casing Diameter (in): 16

Static Water Level (ft bmp): 118.99

Casing Volume (gal): 2,276 x3 = 6,828

Total Volume Purged (gal): 10,220

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0950	Pump On						
0953	3	730	2,190	7.06	19.0	734.6	
0958	8	730	5,840	7.03	19.1	733.2	
1004	14	730	10,220	7.01	19.1	732.1	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AVC-04	10:15	Poly	250mL	1	300.0	NP	Y
DUP20210209	12:00	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-4-21

Well ID: AWC-04 | Weather: clear, 50s

ADWR No: 616584 | Sampler: JH

WELL DATA

Well Depth (ft bls): 337

Casing Diameter (in): 16

Static Water Level (ft bmp): wellhead locked - no access

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Well						
		Inoperable					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
well							
Inoperable							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: VIO

Additional Comments: pump has been pulled, well locked w/ pump 0-ring at surface

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-4-2021

Well ID: AWC-05 | Weather: clear, 50s

ADWR No: 590620 | Sampler: JA

WELL DATA

Well Depth (ft bls): 1183

Casing Diameter (in): 16

Static Water Level (ft bmp): 140.31

Casing Volume (gal): 10,886 x3 = 32,657

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
(16)	(10.44)
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0953	Pump On						
1008	15	750	11,250	7.40	20.6	469.8	
1023	30	750	22,500	7.41	21.0	459.1	
1038	45	750	33,750	7.41	21.2	456.6	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-05	10:10	Poly	250mL	1	300.0	NP	Y
DUP20210104	(12:00)	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Hand filtered samples

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-13-21

Well ID: BANES 987 | Weather: Mostly clear, 60s

ADWR No: 647987 | Sampler: JA

WELL DATA

Well Depth (ft bls): 339

Casing Diameter (in): 6

Static Water Level (ft bmp): 235.12

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	C				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WL0							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WL

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-13-21

Well ID: BARTON 9/9 | Weather: mostly clear, 60s

ADWR No: 644 9/9 | Sampler: JA

WELL DATA

Well Depth (ft bls): 130

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments: Obstruction at ~42 ft

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-3-21

Well ID: BMO-2008-16 Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 310

Casing Diameter (in): 5"

Static Water Level (ft bmp): 76.88

Casing Volume (gal): 237.8 x3 = 713.5

Total Volume Purged (gal): 747

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0730	30	8.3	249	7.19	21.5	877	
0750	50	8.3	415	7.21	21.4	879	
0810	70	8.3	581	7.19	21.4	878	
0830	90	8.3	747	7.21	21.3	878	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-16	0830	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

237.1

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-3-21

Well ID: BMO-2008-3B Weather: Sunny

ADWR No: Sampler: Christopher L Shannon

WELL DATA

Well Depth (ft bls): 260

Casing Diameter (in): 5"

Static Water Level (ft bmp): 151.16

Casing Volume (gal): 111.1 x3 = 333.5

Total Volume Purged (gal): 540

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0915	Pump On						
0925	10	27	135	7.39	21.9	640	
0930	15	27	405	7.35	21.8	642	
0935	20	27	540	7.38	21.8	644	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-3B	0935	PL	250	1	300.0	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 108.9

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: BMO-2008-5B Weather: Partly Cloudy

ADWR No: Sampler: Christopher L. Stevens

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 5"

Static Water Level (ft bmp): 155.07

Casing Volume (gal): 133 x3 = 399

Total Volume Purged (gal): 675

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1445	Pump On						
1450	5	27	135	7.03	21.9	822	
1500	15	27	405	7.06	21.8	819	
1510	25	27	675	7.04	21.8	818	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-5B	1510	PL	250	1	300	HCl	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

130

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: BMO-2008-5M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherrill

WELL DATA

Well Depth (ft bls):	450
Casing Diameter (in):	5"
Static Water Level (ft bmp):	156.20
Casing Volume (gal):	299.6 x3 = 900
Total Volume Purged (gal):	990

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1330	Pump On						
1355	25	18	450	7.18	22.6	673	
1415	45	18	810	7.15	22.7	671	
1425	55	18	990	7.17	22.6	672	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-5M	1425	1L	250	1	300.0	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 293.8

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: Bmo-2008-6B Weather: Partly Cloudy

ADWR No: Sampler: Christopher & Shawn

WELL DATA

Well Depth (ft bls):	265
Casing Diameter (in):	5"
Static Water Level (ft bmp):	199.74
Casing Volume (gal):	6.6 x3 = 20.0
Total Volume Purged (gal):	225

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1100	Pump On						
1115	15	5.1	75	7.35	21.6	262	
1130	30	5.1	150	7.40	21.7	259	
1145	45	5.1	225	7.39	21.6	264	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Bmo-2008-6B	1145	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [x] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

65.3

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: BMO-2008-6M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 450

Casing Diameter (in): 5"

Static Water Level (ft bmp): 200.75

Casing Volume (gal): 254.2 x3 = 763

Total Volume Purged (gal): 840

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1000	Pump On						
1010	10	21	210	7.22	22.0	741	
1020	20	21	420	7.16	21.9	743	
1030	30	21	630	7.14	22.0	742	
1040	40	21	840	7.16	22.0	740	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-6M	1040	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 2493

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-17-21

Well ID: BMO-2008-7M Weather: Sunny

ADWR No: Sampler: Christopher L Shamm

WELL DATA

Well Depth (ft bls): 670

Casing Diameter (in): 5"

Static Water Level (ft bmp): 248.40

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-17-21

Well ID: BMO-2008-8B Weather: Sunny

ADWR No: Sampler: Christopher L Shumm

WELL DATA

Well Depth (ft bls):	480
Casing Diameter (in):	5"
Static Water Level (ft bmp):	305.47
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-17-21

Well ID: BMO-2008-8M Weather: Sunny

ADWR No: Sampler: Christopher L Slemm

WELL DATA

Well Depth (ft bls): 1210

Casing Diameter (in): 5 1/4

Static Water Level (ft bmp): 306.51

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

☒ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☐ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-17-21

Well ID: BMO-2008-9M Weather: Sunny

ADWR No: Sampler: Christopher L Shumm

WELL DATA

Well Depth (ft bls): 775

Casing Diameter (in): 5"

Static Water Level (ft bmp): 291.21

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [X] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-16-21

Well ID: BMO-2008-106 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls): 810

Casing Diameter (in): 5"

Static Water Level (ft bmp): 260.36

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

☒ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☐ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-16-21

Well ID: BMO-2008-10 6U Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 449

Casing Diameter (in): 5"

Static Water Level (ft bmp): 192.68

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-3-21

Well ID: BMO-2008-116 Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 760

Casing Diameter (in): 5"

Static Water Level (ft bmp): 546.25

Casing Volume (gal): 218 x3 = 654

Total Volume Purged (gal): 720

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1200	Pump On						
1210	10	8	80	7.69	24.6	338	
1230	30	8	240	7.89	24.7	337	
1300	60	8	480	7.90	24.8	339	
1330	90	8	720	7.91	24.7	338	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-116	1330	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 213.8

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-15-21

Well ID: BMO-2008-13B Weather: Sunny

ADWR No: Sampler: Christopher L Shannon

WELL DATA

Well Depth (ft bls):	475
Casing Diameter (in):	5"
Static Water Level (ft bmp):	216.27
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-15-21

Well ID: BMO-2008-13M Weather: Sunny

ADWR No: Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls): 1030

Casing Diameter (in): 5"

Static Water Level (ft bmp): 216.14

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Sink only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: BMC-2010-1M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls):	550
Casing Diameter (in):	5"
Static Water Level (ft bmp):	212.26
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: BMO-2010-2M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 380

Casing Diameter (in): 5"

Static Water Level (ft bmp): 265.71

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

☒ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☐ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: BMO-2010-3B | Weather: partly cloudy, 30s

ADWR No: 219970 | Sampler: JA

WELL DATA

Well Depth (ft bls): 330

Casing Diameter (in): 5

Static Water Level (ft bmp): 123.76

Casing Volume (gal): 210 x3 = 631

Total Volume Purged (gal): 700

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0740	Pump On						
0800	20	7	140	7.54	20.7	433.1	
0820	40	7	280	7.52	20.8	426.0	
0840	60	7	420	7.50	20.8	425.9	
0900	80	7	560	7.50	20.8	425.6	
0915	95	7	665	7.48	20.8	425.4	
0920							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-3B	0917	Poly	250mL	1	3040	HP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: BMO-2010-3M | Weather: pt cloudy, 50s

ADWR No: 219969 | Sampler: JA

WELL DATA

Well Depth (ft bls): 532

Casing Diameter (in): 5

Static Water Level (ft bmp): 125.98

Casing Volume (gal): 414 x3 = 1,242

Total Volume Purged (gal): 1288

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0928	Pump On						
0958	30	7	210	7.58	21.7	383.6	
1028	60	7	420	7.61	22.4	384.2	
1058	90	7	630	7.60	22.5	385.2	
1128	120	7	840	7.57	22.6	384.5	
1158	150	7	1,050	7.55	22.6	384.3	
1228	180	7	1,260	7.54	22.7	384.1	
1232							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-3M	1229	Poly	250mL	1	3000	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: BMO-2012-1M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 405

Casing Diameter (in): 5"

Static Water Level (ft bmp): 216.78

Casing Volume (gal): 192 x3 = 576

Total Volume Purged (gal): 600

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0710	10	6	60	7.14	22.2	963	
0730	30	6	180	7.10	22.6	965	
0800	60	6	360	7.11	22.8	964	
0835	95	6	570	7.12	22.8	961	
0840	100	6	600	7.13	22.9	960	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2012-1M	0840	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

188.2

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: BMQ-2014-1BL | Weather: mostly clear, 50s

ADWR No: 917393 | Sampler: JA

WELL DATA

Well Depth (ft bls): 366

Casing Diameter (in): 5

Static Water Level (ft bmp): 128.23

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Well Inaccessible						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Well Inaccessible							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: Well Inaccessible

Additional Comments: No response from pump

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	3-9-21
Well ID:	BMO-2014-1BL	Weather:	Overcast, High 60's
ADWR No:	927394	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	366
Casing Diameter (in):	5
Static Water Level (ft bmp):	128.36
Casing Volume (gal):	242.39 x3 = 727.18
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
1041		5					
1045	4	15	20				Valve not open completely
1047	6	15	~~40~~ 50	7.18	21.4	716.20	
1053	12	15	140	7.29	21.9	717.40	
1100	19	15	245	7.26	22.0	719.5	
1117	36	15	500	7.26	21.8		
1127	46	15	650	7.30	21.8	719.3	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / ~~near wellhead~~ Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-1BL	1141	Poly	500mL	1	~~300~~	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: New pump installed. Stick up is top of PVC. I measured from top of concrete pad to top of PVC and got 11.5".

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: BMO-2014-1BU | Weather: Mostly clear, 40s

ADWR No: 917394 | Sampler: JA

WELL DATA

Well Depth (ft bls):	273
Casing Diameter (in):	5
Static Water Level (ft bmp):	128.49
Casing Volume (gal):	147 x3 = 442
Total Volume Purged (gal):	510

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0947	Pump On						
0957	10	15	150	7.23	21.0	753.9	
1007	20	15	300	7.24	21.0	731.6	
1017	30	15	450	7.24	21.0	718.1	
1021							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-1BU	1019	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: BMC-2014-2BL | Weather: pl cloudy, 20s

ADWR No: 917452 | Sampler: JA

WELL DATA

Well Depth (ft bls): 396

Casing Diameter (in): 5

Static Water Level (ft bmp): 131.50

Casing Volume (gal): 270 x3 = 810

Total Volume Purged (gal): 760

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0729	Pump On						
0744	15	15	225	7.05	20.7	1167	
0759	30	15	450	7.07	20.9	1169	
0814	45	15	675	7.08	20.9	1156	
0829	60	15	900	7.09	20.8	1154	
0833							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMC-2014-2BL	0831	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: BMO-2014-2B4 | Weather: Clear ~30s

ADWR No: 917453 | Sampler: JA

WELL DATA

Well Depth (ft bls): 276

Casing Diameter (in): 5

Static Water Level (ft bmp): 131.51

Casing Volume (gal): 147 x3 = 442

Total Volume Purged (gal): 495

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0840	Pump On						
0850	10	15	150	7.34	20.3	536.1	
0900	20	15	300	7.35	20.4	538.7	
0910	30	15	450	7.35	20.4	537.3	
0913							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-2B4	0911	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: BMO-2014-3BL | Weather: Clear, 60s

ADWR No: 917527 | Sampler: JA

WELL DATA

Well Depth (ft bls): 521

Casing Diameter (in): 5

Static Water Level (ft bmp): 143.90

Casing Volume (gal): 385 x3 = ~~2,514~~ 1,155

Total Volume Purged (gal): 1,235

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1118	Pump On						
1138	20	13	260	7.32	21.2	424.2	
1158	40	13	520	7.34	22.0	421.1	
1218	60	13	780	7.33	22.0	417.4	
1238	80	13	1,040	7.32	22.0	415.5	
1248	90	13	1,170	7.33	22.0	415.3	
1253							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-3BL	1251	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: BMO-2014-3BL | Weather: Clear 70s

ADWR No: 917498 | Sampler: JA

WELL DATA

Well Depth (ft bls): 288

Casing Diameter (in): 5

Static Water Level (ft bmp): 144.99

Casing Volume (gal): 146 x3 = 438

Total Volume Purged (gal): 644

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1300	Pump On						
1310	10	14	140	7.34	20.6	480.5	
1320	20	14	280	7.32	20.6	480.0	
1330	30	14	420	7.32	20.6	479.5	
1340	40	14	560	7.31	20.6	478.1	
1346							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-3BL	13:42	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-2021

Well ID: BMO-2014-4B | Weather: Clear, 60s

ADWR No: 917620 | Sampler: JH

WELL DATA

Well Depth (ft bls): 258

Casing Diameter (in): 5

Static Water Level (ft bmp): 138.09

Casing Volume (gal): 122 x3 = 367

Total Volume Purged (gal): 518

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1205	Pump On						
1215	10	14	140	7.45	20.8	483.3	
1220	15	14	210	7.45	20.8	481.6	
1225	20	14	280	7.43	20.8	481.8	
1230	25	14	350	7.45	20.8	483.5	
1235	30	14	420	7.44	20.9	484.0	
1242							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-4B	12:39	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-21

Well ID: BMO-2014-4BL | Weather: Clear, 60s

ADWR No: 917 | Sampler: JA

WELL DATA

Well Depth (ft bls): 261

Casing Diameter (in): 5

Static Water Level (ft bmp): 137.55

Casing Volume (gal): 126 x3 = 378

Total Volume Purged (gal): 462

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1122	Pump On						
1132	10	14	140	7.40	21.1	605.1	
1137	15	14	210	7.40	21.1	631.4	
1142	20	14	280	7.40	21.1	634.7	
1147	25	14	350	7.40	21.0	643.1	
1152	30	14	420	7.39	21.1	642.0	
1155							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-4BL	1153	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-2021

Well ID: BMO-2015-1B | Weather: clear, 40s

ADWR No: 917622 | Sampler: JH

WELL DATA

Well Depth (ft bls): 244

Casing Diameter (in): 5

Static Water Level (ft bmp): 133.95

Casing Volume (gal): 112 x3 = 337

Total Volume Purged (gal): 406

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0935	Pump On						
0940	5	14	70	7.34	20.7	733.0	
0945	10	14	140	7.34	20.7	736.1	
0950	15	14	210	7.35	20.7	738.2	
0955	20	14	280	7.35	20.6	721.2	
1000	25	14	350	7.33	20.7	713.2	
1004							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-1B	1001	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-21

Well ID: BMO-2015-1BL | Weather: Clear, 50s

ADWR No: 917621 | Sampler: JA

WELL DATA

Well Depth (ft bls): 241

Casing Diameter (in): 5

Static Water Level (ft bmp): 135.25

Casing Volume (gal): 108 x3 = 324

Total Volume Purged (gal): ~ 1-40

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:14	Pump On						
10:15							Pump cut out
1052	~4 min	~11		7.30	21.7	818.6	Purge sample
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-1BL	10:52	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Pump would run for ~1 minute then cut out, could be restarted if breaker flipped off/on, but would keep cutting out - abnormal pump operation, Sampled with low flow purge

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 3-9-21

Well ID: BMO-2015-IBL | Weather: Windy, Overcast, High 60's

ADWR No: 917621 | Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls):	241
Casing Diameter (in):	5
Static Water Level (ft bmp):	135.21
Casing Volume (gal):	107.91 x3 =
Total Volume Purged (gal):	324

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
1225 ~~1225~~		15					
1230	5	15	75	7.36	20.8	842.2	
1235	10	15	150	7.34	20.8	838.6	
1242	17	15	255	7.35	20.8	839.8	
1254							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-IBL	1252	Poly	500 ML	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-21

Well ID: BMO-2015-2B | Weather: clear, 30s

ADWR No: 917827 | Sampler: JA

WELL DATA

Well Depth (ft bls): 268

Casing Diameter (in): 5

Static Water Level (ft bmp): 153.83

Casing Volume (gal): 117 x3 = 351

Total Volume Purged (gal): 504

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0739	Pump On						
0744	5	14	70	7.16	20.5	920.7	
0749	10	14	140	7.17	20.7	902.1	
0754	15	14	210	7.17	20.6	890.2	
0759	20	14	280	7.17	20.7	884.8	
0804	25	14	350	7.18	20.7	882.9	
0809	30	14	420	7.18	20.7	877.4	
0815							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-2B	0812	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-21

Well ID: BMO-2025-2BL | Weather: clear 30s

ADWR No: 917828 | Sampler: JA

WELL DATA

Well Depth (ft bls):	272
Casing Diameter (in):	5
Static Water Level (ft bmp):	152.54
Casing Volume (gal):	120 x3 = 360
Total Volume Purged (gal):	490

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0825	Pump On						
0830	5	14	70	7.12	20.8	976.7	
0835	10	14	140	7.12	20.9	965.7	
0840	15	14	210	7.13	20.9	956.0	
0845	20	14	280	7.13	20.7	958.4	
0850	25	14	350	7.13	20.9	946.3	
0855	30	14	420	7.13	20.9	941.5	
0906							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at)/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2025-2BL	0856	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-21

Well ID: COB MW-1B | Weather: Clear, 60s

ADWR No: 225906 | Sampler: JA

WELL DATA

Well Depth (ft bls): 500

Casing Diameter (in): 6

Static Water Level (ft bmp): DWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL	L	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments: NO WL per owner request due to multiple soundings getting stuck in well.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-12-21

Well ID: COB MW-2 | Weather: clear, 40s

ADWR No: 903984 | Sampler: JA

WELL DATA

Well Depth (ft bls): 162

Casing Diameter (in): 4

Static Water Level (ft bmp): 134.86

Casing Volume (gal): 18 x3 = 54

Total Volume Purged (gal): 132

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1007	Pump On						
1014	5	6	30	7.21	19.7	5937	
1019	10	6	60	7.21	19.7	591.6	
1024	15	6	90	7.21	19.7	591.2	
1031							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: PVC sample spigot at wellhead)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB MW-2	1027	poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-12-21

Well ID: COB MW-3 | Weather: clear, 30s

ADWR No: 906823 | Sampler: JA

WELL DATA

Well Depth (ft bls): 300

Casing Diameter (in): 4

Static Water Level (ft bmp): 134.66

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	4	6	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-6-21

Well ID: COB WL | Weather: Clear, 60s

ADWR No: 593116 | Sampler: JA

WELL DATA

Well Depth (ft bls): 150

Casing Diameter (in): 4

Static Water Level (ft bmp): 95.93

Casing Volume (gal): 35 x3 = 105

Total Volume Purged (gal): 116

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1329	Pump On						
1334	5	7	35	6.99	20.5	1102	
1339	10	1	40	7.04	20.2	1106	
1359	30	1	60	7.12	22.6	1098	
1419	50	1	80	7.13	22.9	1099	
1439	70	1	100	7.10	22.9	1108	
1449	80	1	110	7.09	22.8	1102	
1455							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB WL	1454	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-15-21

Well ID: Cooper C Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sloan

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6"

Static Water Level (ft bmp): 166.65

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [X] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-11-21

Well ID: DODSON | Weather: PT Cloudy, 50s

ADWR No: 644927 | Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 6

Static Water Level (ft bmp): 99.72

Casing Volume (gal): 147 x3 = 442

Total Volume Purged (gal): 561

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1330	Pump On						
1340	10	17	170	7.09	20.3	2201	
1350	20	17	340	7.08	20.3	2171	
1400	30	17	510	7.07	20.2	2153	
1403							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
DODSON	1403	poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: ECHAVE | Weather: clear, 70s

ADWR No: 219449 | Sampler: SA

WELL DATA

Well Depth (ft bls): 345

Casing Diameter (in): 6

Static Water Level (ft bmp): 222.04

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	6	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-11-21
Well ID:	GARNER 557	Weather:	Mostly clear, 50s
ADWR No:	558557	Sampler:	JA

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	6
Static Water Level (ft bmp):	202.85
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: GOHR RANCH | Weather: Mostly clear 70s

ADWR No: 610695 | Sampler: JH

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 7

Static Water Level (ft bmp): 195.91

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-15-21

Well ID: Hoban Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shumm

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	5"
Static Water Level (ft bmp):	125.10
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-4-21

Well ID: HOWARD NR | Weather: clear, 60s

ADWR No: NR | Sampler: JH

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): 161.71

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WLO						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-12-21

Well ID: KEEFER Weather: clear, 50s

ADWR No: 209744 Sampler: JA

WELL DATA

Well Depth (ft bls): 245

Casing Diameter (in): 6

Static Water Level (ft bmp): 146.11

Casing Volume (gal): 145 x3 = 436

Total Volume Purged (gal): 450

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1223	Pump On						
1238	15	10	150	7.24	20.0	487.3	
1253	30	10	300	7.30	20.0	492.9	
1308	45	10	450	7.30	20.1	495.8	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
KEEFER	1311	Poly	150mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-23-21

Well ID: LADD-251 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Skerson

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 225.80

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

☑ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☐ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-23-21

Well ID: LADD-435 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shurman

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 253.47

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-23-21

Well ID: LAOD-532 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherwin

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 212.10

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-23-21

Well ID: LAPP-635 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Skaum

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): NO ACCESS

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: No access inside Casing

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-23-21

Well ID: AMW-837 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Stevens

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 317.23

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: pump running SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-23-21

Well ID: LADP-977 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L. Shumway

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 90.20

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Pump running SWL only

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: MCCONNELL 265 | Weather: mostly clear, 60s

ADWR No: 539265 | Sampler: JA

WELL DATA

Well Depth (ft bls): 216

Casing Diameter (in): 6

Static Water Level (ft bmp): 167.96

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-7-21

Well ID: METZLER Weather: clear, 70s

ADWR No: 35-71891 Sampler: JA

WELL DATA

Well Depth (ft bls): 351

Casing Diameter (in): 6

Static Water Level (ft bmp): 296.41

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	LV	L	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WCQ							

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLD

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 2-9-2021

Well ID: NSD-02 | Weather: Clear, 60s

ADWR No: 527587 | Sampler: JA

WELL DATA

Well Depth (ft bls): 120

Casing Diameter (in): 12

Static Water Level (ft bmp): 107.95

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 2-9-2021

Well ID: NSD-03 | Weather: clear, CGs

ADWR No: 527586 | Sampler: JA

WELL DATA

Well Depth (ft bls): 100

Casing Diameter (in): 12

Static Water Level (ft bmp): 93.94

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WLO					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-12-21

Well ID: NWC-02 | Weather: Clear, 30s

ADWR No: 562994 | Sampler: JA

WELL DATA

Well Depth (ft bls): 312

Casing Diameter (in): 6

Static Water Level (ft bmp): 172.33

Casing Volume (gal): 205 x3 = 616

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0759	Pump On						
0802	3	100	300	7.78	21.2	429.1	
0804	5	100		7.43	21.2	423.7	
0806	7	100	700	7.42	21.3	422.1	
0810							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-02	0804	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Flow 2 filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-12-21
Well ID:	NWC-03 CAP	Weather:	clear, 30s
ADWR No:	627684	Sampler:	JH

WELL DATA

Well Depth (ft bls):	179
Casing Diameter (in):	8
Static Water Level (ft bmp):	IWL / DRY
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [x] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [x] Other: Dry

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-12-21

Well ID: NWC-04 | Weather: clear, 20s

ADWR No: 551849 | Sampler: SA

WELL DATA

Well Depth (ft bls): 462

Casing Diameter (in): 10

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
(10)	(4.08)
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0720	Pump On						
0725	5	6.5	32.5	7.37	24.2	734.7	
0730	10	6.5	65	7.44	24.2	845.1	
0735	15	6.5	97.5	7.41	24.2	840.4	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / (near) wellhead Other: up-gradient to tank

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-04	0737	poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Sounds tube obstructed ~30 ft / Solinst unable to go past. Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-12-21

Well ID: VWC-06 Weather: clear, 30s

ADWR No: 575702 Sampler: JH

WELL DATA

Well Depth (ft bls): 340

Casing Diameter (in): 8

Static Water Level (ft bmp): 166.51

Casing Volume (gal): 453 x3 = 1359

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0815	Pump On						
0817	2	135	1	7.42	21.4	385.4	
0819	4	135	540	7.41	21.7	377.9	
0822	7	135	945	7.41	21.6	373.0	
0826	11	135	1485	7.40	21.7	374.9	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
VWC-06	0827	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand Filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-8-21

Well ID: OLMOS | Weather: mostly clear, 50s

ADWR No: 224745 | Sampler: JH

WELL DATA

Well Depth (ft bls): 306

Casing Diameter (in): 6

Static Water Level (ft bmp): 152.98

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WLO						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-11-21

Well ID: PANAGAKOS Weather: Pt. Cloudy, 40's

ADWR No: 35-76413 Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 8

Static Water Level (ft bmp): 162.45

Casing Volume (gal): 98 x3 = 294

Total Volume Purged (gal): 342

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
(8)	(2.61)
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1209	Pump On						
1224	15	9	135	7.32	20.2	1167	
1234	25	9	225	7.24	20.2	1189	
1244	35	9	315	7.20	20.2	1189	
1247							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / (near) wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PANAGAKOS	1247	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: PIONCE 395 | Weather: Mostly Sunny, 60s

ADWR No: 613395 | Sampler: JH

WELL DATA

Well Depth (ft bls): 330

Casing Diameter (in): 8

Static Water Level (ft bmp): 160.22

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-13-21

Well ID: POWER 639 Weather: Mostly Clear, 30s

ADWR No: 222639 Sampler: JH

WELL DATA

Well Depth (ft bls): 480

Casing Diameter (in): 6

Static Water Level (ft bmp): 297.41

Casing Volume (gal): 268 x3 = 805

Total Volume Purged (gal): 837

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:16	Pump On						
11:25	15	9	135	7.68	21.5	498.0	
11:40	30	9	270	7.48	21.5	656.1	
11:55	45	9	405	7.37	21.5	753.6	
12:10	60	9	540	7.31	21.4	817.4	
12:25	75	9	675	7.29	21.4	841.2	
12:40	90	9	810	7.29	21.4	856.8	
1243							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
POWER 639	1243	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-8-21

Well ID: RAMIREZ Weather: Mostly, Clear, 50s

ADWR No: Sampler: JH

WELL DATA

Well Depth (ft bls): 300

Casing Diameter (in): 6

Static Water Level (ft bmp): 170.56

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-12-21

Well ID: ROGERS E | Weather: clear, 50s

ADWR No: 216018 | Sampler: JH

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 6

Static Water Level (ft bmp): 161.12

Casing Volume (gal): 182 x3 = 546

Total Volume Purged (gal): 693

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:00	Pump On						
11:15	15	11	165	7.29	21.2	438.1	
11:30	30	11	330	7.32	21.3	436.5	
11:45	45	11	495	7.33	21.3	437.0	
12:00	60	11	660	7.33	21.3	437.8	
1203							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ROGERS E	1203	Poly	250mL	1	3040	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-12-21

Well ID: RUIZ 146 | Weather: Clear, 50s

ADWR No: 232146 | Sampler: JN

WELL DATA

Well Depth (ft bls): 500

Casing Diameter (in): 6

Static Water Level (ft bmp): 301.48

Casing Volume (gal): 2.92 x3 = 876

Total Volume Purged (gal): 60* (~120)

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1403	Pump On						
1405	2	5 *	10	7.21	20.2	619.7	
1407	4	5	20	7.17	20.9	601.6	
1409	6	5	30	7.25	21.1	606.7	
1411	8	5	40	7.24	21.1	620.1	
1413	10	5	50	7.22	21.1	632.6	
1415							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other): Spigot on pipe to tank at old well

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RUIZ 146	14:15	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: * ~½ water output flow to storage tank (~10 gpm total)

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-8-21

Well ID: SCHWARTZ | Weather: Mostly Clear, 60s

ADWR No: 210865 | Sampler: JA

WELL DATA

Well Depth (ft bls): 305

Casing Diameter (in): 6

Static Water Level (ft bmp): 133.62

Casing Volume (gal): 252 x3 = 756

Total Volume Purged (gal): 858

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1025	Pump On						
1040	15	11	165	7.31	21.0	669.4	
1055	30	11	330	7.29	21.0	682.7	
1110	45	11	495	7.29	20.9	693.8	
1125	60	11	660	7.28	20.9	702.4	
1140	75	11	825	7.28	21.0	709.3	
1143							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
SCHWARTZ	1143	POLY	250mL	1	300.0	NP	Y
DUP20210108	(1200)	POLY	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-13-21

Well ID: STEPHENS Weather: Mostly Clear, 60s

ADWR No: 808560 Sampler: JA

WELL DATA

Well Depth (ft bls): N/A

Casing Diameter (in):

Static Water Level (ft bmp): 54.94

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-8-21

Well ID: THOMPSON 151 | Weather: mostly clear, 50s

ADWR No: 612151 | Sampler: JH

WELL DATA

Well Depth (ft bls): 210

Casing Diameter (in): 7

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments: Obstructed at ~55'

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-8-21
Well ID:	THOMPSON 341	Weather:	Mostly Clear, 50s
ADWR No:	218341	Sampler:	JH

WELL DATA

Well Depth (ft bls):	285
Casing Diameter (in):	7
Static Water Level (ft bmp):	172.08
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments: Substitute for 151 well WLO

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-17-21

Well ID: TM-2A Weather: Sunny

ADWR No: Sampler: Christopher L. Sherman

WELL DATA

Well Depth (ft bls):	925
Casing Diameter (in):	4"
Static Water Level (ft bmp):	336.28
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-15-21

Well ID: TM-6 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Slemmons

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 4"

Static Water Level (ft bmp): 164.10

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-17-21

Well ID: TM-7 Weather: Sunny

ADWR No: Sampler: Chastaplw L Shuma

WELL DATA

Well Depth (ft bls): 350

Casing Diameter (in): ~~8~~ 4"

Static Water Level (ft bmp): 338.20

Casing Volume (gal): 7.6 x3 = 23

Total Volume Purged (gal): 80

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rete (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1000	Pump On						
1002	2	10	20	7.36	20.7	623	
1032	—	—		~~7.37~~	~~20.5~~	~~625~~	
1034	4	10	40	7.37	20.5	625	
1044	—	—					
1046	6	10	60	7.39	20.6	620	
1056	—	—					
1058	8	10	80	7.39	20.8	621	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-7	1058	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-5-21

Well ID: TM-10 45BP | Weather: Mostly clear, 40s

ADWR No: 522696 | Sampler: JA

WELL DATA

Well Depth (ft bls): 290

Casing Diameter (in): 4

Static Water Level (ft bmp): 261.10

Casing Volume (gal): 19 x3 = 57

Total Volume Purged (gal): 60

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
(4)	(0.65)
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1307	Pump On						
1312	5	7	35	7.66	20.9	368.7	
1317	10	1	40	7.68	21.0	368.3	
1322	15	1	45	7.72	21.5	368.6	
1327	20	1	50	7.73	22.4	368.8	
1334	27	1	57	7.75	22.5	369.5	
1337							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: PVC Pour Spout Pipe at wellhead

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-10 45BP	13:37	poly	250mL	1	300.0	VP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand Filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-2-21

Well ID: TM-16 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L. Shumm

WELL DATA

Well Depth (ft bls):	115
Casing Diameter (in):	4"
Static Water Level (ft bmp):	61.37
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 3-15-21

Well ID: TM-42 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shuman

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 5"

Static Water Level (ft bmp): 222.60

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: S w/L only

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-12-21

Well ID: TVI-236 | Weather: clear, 40s

ADWR No: 502236 | Sampler: JA

WELL DATA

Well Depth (ft bls): 222

Casing Diameter (in): 12

Static Water Level (ft bmp): 132.30

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	We	11					
		Impossible					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
well							
Impossible							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: Well Impossible

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: TVI - 713 | Weather: mostly clear, 30s

ADWR No: 567713 | Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 8

Static Water Level (ft bmp): 136.57

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL	L	C				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-7-21

Well ID: WEED | Weather: Clear, 70s

ADWR No: 544535 | Sampler: JA

WELL DATA

Well Depth (ft bls): 320

Casing Diameter (in): 6

Static Water Level (ft bmp): DWL

Casing Volume (gal): x3 =

Total Volume Purged (gal): 66

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1421	Pump On						
1424	3	6*	18	7.56	20.9	383.0	
1427	6	6	36	7.55	21.1	383.7	
1430	9	6	54	7.55	21.2	383.1	
1432							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WEED	1431	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: * Additional 3.5 gpm supply onto tank

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-11-21

Well ID: WEISKOPF #02 | Weather: mostly clear, 50s

ADWR No: 641802 | Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 6

Static Water Level (ft bmp): 154.86

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-12-21

Well ID: ZANDER Weather: Clear, 50s

ADWR No: 205126 Sampler: JA

WELL DATA

Well Depth (ft bls): 280

Casing Diameter (in): 6

Static Water Level (ft bmp): 156.33

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 4-1-2021

Well ID: NWC-04 Weather: Mostly Sunny, 60s

ADWR No: 551844 Sampler: JA

WELL DATA

Well Depth (ft bls): 462

Casing Diameter (in): 10

Static Water Level (ft bmp): DRY

Casing Volume (gal): x3 =

Total Volume Purged (gal): 320

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0845	Pump On						
0850	5	16	80	7.24	23.7	836.0	
0855	10	16	160	7.33	23.6	841.2	
0900	15	16	240	7.38	23.6	839.3	
0905							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-04	09:03	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/27/21

Well ID: ANDERSON 396 | Weather: cloudy, 90s

ADWR No: 613396 | Sampler: JA

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 8

Static Water Level (ft bmp): 157.41

Casing Volume (gal): NA x3 =

Total Volume Purged (gal): NA

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
(8)	(2.61)
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		Well					
		I	Inoperable				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WIO

Additional Comments: Well disconnected from power

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/27/21

Well ID: ANDERSON 458 | Weather: Cloudy 90s

ADWR No: 221458 | Sampler: JA

WELL DATA

Well Depth (ft bls): 734

Casing Diameter (in): 5

Static Water Level (ft bmp): 161.26

Casing Volume (gal): 584 x3 = 1,753

Total Volume Purged (gal): ~~1815~~

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
12:30	Pump On						
13:10	40	11	440	7.96	23.6	398.8	
13:50	80	11	880	8.03	23.7	397.1	
14:30	120	11	1,320	8.03	23.7	397.4	
15:10	160	11	1,760	8.03	23.8	396.9	
1515							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ANDERSON 458	1512	poly	250mL	1	300.0	NP	Y
		/					/

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/20/21
Well ID:	AWL-02	Weather:	97. Cloudy, 80s
ADWR No:	616586	Sampler:	JA

WELL DATA

Well Depth (ft bls):	333
Casing Diameter (in):	20
Static Water Level (ft bmp):	129.77
Casing Volume (gal):	3,315 x3 = 9,945
Total Volume Purged (gal):	11,250

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
(20)	(16.31)

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1020	Pump On						
1050	30	90	2,700	7.14	20.0	546.4	
1120	60	90	5,400	7.15	20.1	541.5	
1150	90	90	8,100	7.13	20.1	536.6	
1220	120	90	10,800	7.11	20.1	538.3	
1225							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at /near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWL-02	1223	Poly	250mL	1	3000	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/20/21
Well ID:	AWC-03	Weather:	pt Cloudy, 80's
ADWR No:	616585	Sampler:	JA

WELL DATA

Well Depth (ft bls):	270
Casing Diameter (in):	16
Static Water Level (ft bmp):	129.00* (Used by AWC's Sounder)
Casing Volume (gal):	1,472 x3 = 4416
Total Volume Purged (gal):	17,420

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0920	Pump On						
0925	5	670	3,350	7.26	20.1	525.9	
0930	10	670	6,700	7.25	20.1	520.2	
0935	15	670	10,050	7.24	20.1	518.7	
0946							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-03	0939	poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/20/21
Well ID:	AWC-04	Weather:	Pt Cloudy, 80s
ADWR No:	616584	Sampler:	JA

WELL DATA

Well Depth (ft bls):	337
Casing Diameter (in):	16
Static Water Level (ft bmp):	121.31
Casing Volume (gal):	2,252 x3 = 6,756
Total Volume Purged (gal):	10,080

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0950	Pump On						
0952	2	840	1,680	6.91	19.4	710.5	
0954	4	840	3,360	6.87	19.2	716.3	
0956	6	840	5,040	6.86	19.1	718.7	
0958	8	840	6,720	6.86	19.1	720.1	
0959	9	840	7,560	6.87	19.1	720.7	
1004							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-04	10:01	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hach Filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/20/21

Well ID: AWC-05 | Weather: pt. Cloudy, 80s

ADWR No: 590620 | Sampler: JH

WELL DATA

Well Depth (ft bls): 1183

Casing Diameter (in): 11

Static Water Level (ft bmp): 188.07

Casing Volume (gal): 10,387 x3 = 31,161

Total Volume Purged (gal): 42,880

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0800	Pump On						
0815	15	640	9,600	7.33	20.1	452.9	
0830	30	640	19,200	7.26	20.3	451.3	
0845	45	640	28,800	7.28	20.5	449.7	
0900	60	640	38,400	7.28	20.6	448.6	
0907							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-05	9:05	poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/20/21

Well ID: ~~Bon~~ BANKS 986 | Weather: Cloudy, T-storms, 80's

ADWR No: 647986 | Sampler: RT

WELL DATA

Well Depth (ft bls):	435
Casing Diameter (in):	6
Static Water Level (ft bmp):	IWL 237.31 from BANKS 987
Casing Volume (gal):	291 x3 = 873
Total Volume Purged (gal):	909

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	~~1.47~~
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1655	Pump On						
1715	20	9	180	7.43	22.1	1048	
1745	50	9	450	7.47	21.7	1028	
1810	75	9	675	7.42	21.6	1001	
1830	95	9	855	7.42	21.6	990.8	
1835	100	9	900				Sample
1836	101	9	909				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BANKS 986	1835	Poly	250mL	1	300	NP	X

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: SWL taken from BANKS 987

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/28/21

Well ID: BANKS 987 | Weather: Rain, 90's

ADWR No: 647987 | Sampler: RT

WELL DATA

Well Depth (ft bls): 339

Casing Diameter (in): 6

Static Water Level (ft bmp): 237.31

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: No pump.

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/29/21

Well ID: BARTON 919 Weather: Cloudy, 80s

ADWR No: 644919 Sampler: JH

WELL DATA

Well Depth (ft bls): 130

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WLO						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments: Obstructed at ~38 ft

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/20/21

Well ID: RTMA | Weather: Sunny, 80s

ADWR No: 577727 | Sampler: RT

WELL DATA

Well Depth (ft bls):	460
Casing Diameter (in):	4
Static Water Level (ft bmp):	
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	No purge

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1006	Pump On						
1006				6.93	24.5	1396	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other) Spigot by booster Pump

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RTMA	1008	Poly	250mL	1	300	NP	F

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized
- ☐ Purged well until field parameters stabilized.
- ☒ Other: No purge.

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-14-21

Well ID: BMP-2008-16 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shannon

WELL DATA

Well Depth (ft bls): 310

Casing Diameter (in): 5

Static Water Level (ft bmp): 78.06

Casing Volume (gal): 236.6 x3 = 710

Total Volume Purged (gal): 747

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0530	Pump On						
0600	30	8.3	249	7.11	21.9	870	
0620	50	8.3	415	7.14	21.8	872	
0640	70	8.3	581	7.16	21.9	873	
0700	90	8.3	747	7.18	21.9	875	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMP-2008-16	0700	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 232

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-27-21

Well ID: BMO-2008-3B Weather: Sunny

ADWR No: Sampler: Christopher L Shuma

WELL DATA

Well Depth (ft bls): 260

Casing Diameter (in): 5

Static Water Level (ft bmp): 151.74

Casing Volume (gal): 110.4 x3 = 331.3

Total Volume Purged (gal): 540

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0710	10	27	135	7.28	21.7	670	
0715	15	27	405	7.26	21.6	671	
0720	20	27	540	7.29	21.6	670	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-3B	0720	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 108.3

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: BMO-2008-4B | Weather: Pt Cloudy, 90s

ADWR No: 910096 | Sampler: JA

WELL DATA

Well Depth (ft bls): 610

Casing Diameter (in): 5

Static Water Level (ft bmp): 142.25

Casing Volume (gal): 477 x3 = 1,431

Total Volume Purged (gal): 1,550

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
12:20	Pump On						
12:50	30	10*	300	7.60	22.6	379.0	
13:20	60	10	600	7.57	22.7	378.3	
13:50	90	10	900	7.57	22.7	377.6	
14:20	120	10	1,200	7.56	22.7	377.7	
14:50	150	10	1,500	7.53	22.7	378.1	
1456							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-4B	14:55	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: * 5 gpm from spigot at wellhead, 5+ gpm to ordered weighted line

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-12-21

Well ID: BMO-2008-5B Weather: Cloudy

ADWR No: Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls):	285
Casing Diameter (in):	5
Static Water Level (ft bmp):	155.61
Casing Volume (gal):	132 x3 = 396
Total Volume Purged (gal):	675

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0905	Pump On						
0910	5	27	135	7.08	22.2	855	
0920	15	27	405	7.11	22.3	850	
0930	25	27	675	7.12	22.2	849	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-5B	0930	PL	250	1	390	HNO3	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 129.4

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-12-21

Well ID: BMO-2008-5M Weather: Cloudy

ADWR No: Sampler: Christopher L Sturm

WELL DATA

Well Depth (ft bls): 450

Casing Diameter (in): 5

Static Water Level (ft bmp): 157.05

Casing Volume (gal): 298.8 x3 = 896.4

Total Volume Purged (gal): 990

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0810	Pump On						
0825	25	18	450	7.38	23.0	677	
0845	45	18	810	7.39	22.9	678	
0855	55	18	990	7.41	22.9	676	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-5M	0855	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 293

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-12-21

Well ID: BMQ-2008-6B Weather: Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 265

Casing Diameter (in): 5

Static Water Level (ft bmp): 200.29

Casing Volume (gal): 66 x3 = 198

Total Volume Purged (gal): 225

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0640	Pump On						
0655	15	5.1	75	7.18	22.0	287	
0710	30	5.1	150	7.21	21.9	284	
0725	45	5.1	225	7.22	22.0	282	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMQ-2008-6B	0725	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 64.8

Broke Suction @ 0726

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-12-21

Well ID: BMO-2008-CM Weather: Cloudy

ADWR No: Sampler: Christopher L Shuma

WELL DATA

Well Depth (ft bls):	450
Casing Diameter (in):	5
Static Water Level (ft bmp):	201.43
Casing Volume (gal):	253.5 x3 = 760.7
Total Volume Purged (gal):	840

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.81
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0610	10	21	210	7.05	22.2	740	
0620	20	21	420	7.14	22.1	743	
0630	30	21	630	7.15	22.2	741	
0640	40	21	840	7.16	22.2	740	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-CM	0640	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 248

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-2-21

Well ID: BMO-2008-7M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Skinner

WELL DATA

Well Depth (ft bls): 670

Casing Diameter (in): 5

Static Water Level (ft bmp): 248.81

Casing Volume (gal): 429.6 x3 = 1,289

Total Volume Purged (gal): 1365

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.81
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0530	Pump On						
0555	25	21	525	7.50	23.2	485	
0615	45	21	945	7.52	23.1	486	
0635	65	21	1365	7.53	23.1	487	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-7M	0635	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 421.2

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-2-21

Well ID: BMP-2008-8B Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Slaven

WELL DATA

Well Depth (ft bls): 480

Casing Diameter (in): 5

Static Water Level (ft bmp): 306.10

Casing Volume (gal): 177.3 x3 = 532.1

Total Volume Purged (gal): 550

Casing Capacity	
Nominal Size (Inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0900	Pump On						
0930	30	5	150	6.68	22.9	2540	
1000	60	5	300	6.71	23.0	2530	
1030	90	5	450	6.69	23.1	2540	
1050	110	5	550	6.71	23.2	2550	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMP-2008-8B	1050	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 173.9

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-2-21

Well ID: BMO-2008-8M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shuma

WELL DATA

Well Depth (ft bls): 1210

Casing Diameter (in): 5

Static Water Level (ft bmp): 302.32

Casing Volume (gal): 925.8 x3 = 2,777.5

Total Volume Purged (gal): 2816

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0730	Pump On						
0830	60	17.6	1056	6.78	24.8	1904	
0930	120	17.6	2112	6.80	24.8	1911	
1000	150	17.6	2640	6.78	24.7	1906	
1010	160	17.6	2816	6.79	24.6	1908	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-8M	1010	PL	250	1	300	Ice	Y
Dup080221	1010	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 907.1

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-18-21

Well ID: BMQ-2008-9M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sloan

WELL DATA

Well Depth (ft bls): 775

Casing Diameter (in): 5

Static Water Level (ft bmp): 293.59

Casing Volume (gal): 491.1 x3 = 1473

Total Volume Purged (gal): 1504

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1030	Pump On						
1050	20	18.8	376	7.61	24.8	603	
1110	40	18.8	752	7.64	24.9	601	
1130	60	18.8	1128	7.65	24.8	603	
1150	80	18.8	1504	7.66	24.9	602	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMQ-2008-9M	1150	PL	250	1	300	Icy	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

181.5

CLEAR

Groundwater Sampling Form

Project No: 287030
Client: Freeport Copper Queen Branch
Task No:
Date: 8-17-21
Well ID: BMO-2008-10 GL
Weather: Partly Cloudy
ADWR No:
Sampler: Christopher L Stumm

WELL DATA

Well Depth (ft bls): 810
Casing Diameter (in): 5
Static Water Level (ft bmp): 262.84
Casing Volume (gal): 558.1 x3 = 1674.4
Total Volume Purged (gal): 1684

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0530	Pump On						
0630	60	6.25	372	6.09	24.1	3880	
0735	125	6.2	744	6.22	24.4	3880	
0839	180	5	1044	6.20	24.9	3890	
0930	240	4	1284	6.17	25.2	3880	
1030	300	4	1524	6.19	25.2	3890	
1110	340	4	1684	6.20	25.3	3870	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-10 GL	1110	PL	250	1	300	Iga	X

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 5472

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-17-21

Well ID: BMO-2008-1061 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L / Shawn

WELL DATA

Well Depth (ft bls):	449
Casing Diameter (in):	5
Static Water Level (ft bmp):	192.91
Casing Volume (gal):	256.1 x3 = 768.3
Total Volume Purged (gal):	792

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0615	15	8.8	132	6.05	20.8	3930	
0630	30	8.8	264	6.07	20.7	3928	
0705	65	8.8	528	6.06	20.8	3930	
0730	90	8.8	792	6.06	20.7	3920	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-1061	0730	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 251.1

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-22-21

Well ID: BMO-2008-116 Weather: Sunny

ADWR No: Sampler: Christopher L Slusser

WELL DATA

Well Depth (ft bls): 760

Casing Diameter (in): 5

Static Water Level (ft bmp): 546.07

Casing Volume (gal): 218.2 x3 = 655

Total Volume Purged (gal): 720

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0630	Pump On						
0640	10	8	80	7.71	25.4	335	
0700	30	8	240	7.82	25.5	340	
0730	60	8	480	7.84	25.5	339	
0800	90	8	720	7.86	25.5	341	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-116	0800	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collectad. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 214

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-16-21

Well ID: BMO-2008-13B Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 475

Casing Diameter (in): 5

Static Water Level (ft bmp): 216.85

Casing Volume (gal): 263.3 x3 = 790

Total Volume Purged (gal): 900

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0610	10	20	200	6.65	22.0	2190	
0625	25	20	500	6.64	21.9	2200	
0635	35	20	700	6.65	21.9	2220	
0645	45	20	900	6.67	21.9	2220	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-13B	0645	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 2582

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-16-21

Well ID: BMO-2008-13M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Stamm

WELL DATA

Well Depth (ft bls):	1030
Casing Diameter (in):	5
Static Water Level (ft bmp):	216.39
Casing Volume (gal):	830 x3 = 2490
Total Volume Purged (gal):	2604

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0500	Pump On						
0720	140	5.7	798	9.84	22.9	1198	
0820	200	4.6	1140	9.10	23.4	1288	
0920	260	3.8	1416	8.85	24.1	1326	
1120	380	3.8	1872	8.79	24.0	1324	
1220	440	2.8	2100	8.76	24.2	1327	
1520	620	2.8	2604	8.73	24.3	1324	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-13M	1520	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 813.7

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-15-21

Well ID: BMO-2010-1M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sterrett

WELL DATA

Well Depth (ft bls): 550

Casing Diameter (in): 5

Static Water Level (ft bmp): 214.84

Casing Volume (gal): 342 x3 = 1,026

Total Volume Purged (gal): 1035

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0715	15	10	150	7.41	23.7	763	
0800	60	5	375	7.56	24.3	759	
0900	120	3	555	7.63	23.9	757	
1000	180	3	735	7.66	23.8	759	
1100	240	3	915	7.67	23.9	760	
1140	280	3	1035	7.68	24.0	762	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-1M	1140	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

☒ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☒ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: 335.2

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-15-21

Well ID: BMO-2010-2M Weather: Cloudy

ADWR No: Sampler: Christopher L Shum

WELL DATA

Well Depth (ft bls): 380

Casing Diameter (in): 5

Static Water Level (ft bmp): 268.91

Casing Volume (gal): 113.3 x3 = 340

Total Volume Purged (gal): 810

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0530	Pump On						
0540	10	27	270	6.71	21.7	2150	
0550	20	27	540	6.69	21.6	2160	
0600	30	27	810	6.70	21.7	2150	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-2M	0600	pl	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 111

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/13/21

Well ID: BMO-2010-3B Weather: Clear, 90s

ADWR No: 219970 Sampler: JA

WELL DATA

Well Depth (ft bls): 330

Casing Diameter (in): 5

Static Water Level (ft bmp): 124.56

Casing Volume (gal): 210 x3 = 630

Total Volume Purged (gal): 666

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0855	Pump On						
0915	20	6	120	7.71	20.4	433.2	
0935	40	6	240	7.50	20.3	432.4	
0955	60	6	360	7.45	20.4	433.0	
1015	80	6	480	7.44	20.4	433.3	
1035	100	6	600	7.44	20.4	433.5	
1040	105	6	630	7.43	20.4	433.4	
1046							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-3B	10:43	Poly	250mL	1	300.0	NP	Y
Dup 20210713	10:43 (12:00)	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/13/2021

Well ID: BMO-2010-3M Weather: pt. cloudy, 90s

ADWR No: 219969 Sampler: JA

WELL DATA

Well Depth (ft bls): 532

Casing Diameter (in): 5

Static Water Level (ft bmp): 127.39

Casing Volume (gal): 413 x3 = 1,239

Total Volume Purged (gal): 1,309

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:55	Pump On						
11:25	30	7	210	7.65	21.5	372.4	
11:55	60	7	420	7.59	22.0	393.1	
12:25	90	7	630	7.58	22.1	392.3	
12:55	120	7	840	7.58	22.2	391.5	
13:25	150	7	1,050	7.57	22.3	391.0	
13:55	180	7	1,260	7.55	22.2	391.6	
14:02							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-3M	13:57	poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-14-21

Well ID: BMO-2012-1M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Slurry

WELL DATA

Well Depth (ft bls): 405

Casing Diameter (in): 5

Static Water Level (ft bmp): 218.46

Casing Volume (gal): 190.1 x3 = 570.3

Total Volume Purged (gal): 600

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0730	Pump On						
0740	10	6	60	7.12	23.3	965	
0810	30	6	180	7.18	23.2	967	
0830	60	6	360	7.16	23.3	963	
0910	100	6	600	7.19	23.3	964	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2012-1M	0910	PL	25	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 186.4

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/15/21

Well ID: BMO-2014-1BL Weather: Overcast 80s

ADWR No: 917394 Sampler: JA

WELL DATA

Well Depth (ft bls): 366

Casing Diameter (in): 5

Static Water Level (ft bmp): 128.88

Casing Volume (gal): 242 x3 = 726

Total Volume Purged (gal): 990

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:15	Pump On						
10:30	15	15	225	7.30	21.2	721.5	
10:45	30	15	450	7.29	21.2	720.3	
11:00	45	15	675	7.31	21.2	720.7	
11:15	60	15	900	7.29	21.2	721.0	
1121							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-1BL	11:18	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/15/21

Well ID: BMO-2014-1BU | Weather: Overcast, 80s

ADWR No: 917393 | Sampler: JA

WELL DATA

Well Depth (ft bls): 273

Casing Diameter (in): 5

Static Water Level (ft bmp): 129.12

Casing Volume (gal): 147 x3 = 441

Total Volume Purged (gal): 525

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
09:30	Pump On						
09:40	10	15	150	7.30	20.3	774.6	
09:50	20	15	300	7.30	20.3	752.3	
10:00	30	15	450	7.30	20.2	733.1	
1005							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-1BU	10:03	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/15/21

Well ID: BMO-2014-2BL Weather: cloudy, 80s, humid

ADWR No: 917452 Sampler: JA

WELL DATA

Well Depth (ft bls):	396
Casing Diameter (in):	5
Static Water Level (ft bmp):	132.10
Casing Volume (gal):	269 x3 = 808
Total Volume Purged (gal):	990

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
07:14	Pump On						
07:29	15	15	225	7.15	20.2	1186	
07:44	30	15	450	7.19	20.3	1181	
07:59	45	15	675	7.16	20.3	1178	
08:14	60	15	900	7.15	20.3	1174	
08 20							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-2BL	08:17	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/15/21

Well ID: BMO-2014-2BU Weather: Cloudy, 80s, humid

ADWR No: 917453 Sampler: JA

WELL DATA

Well Depth (ft bls):	276
Casing Diameter (in):	5
Static Water Level (ft bmp):	132.12
Casing Volume (gal):	147 x3 = 441
Total Volume Purged (gal):	525

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
08:30	Pump On						
08:40	10	15	150	7.41	19.7	541.5	
08:50	20	15	300	7.40	19.7	543.8	
09:00	30	15	450	7.40	19.8	545.4	
09:05							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-2BU	09:02	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/15/21

Well ID: BMO-2014-3BL | Weather: cloudy, 90s.

ADWR No: 917527 | Sampler: JA

WELL DATA

Well Depth (ft bls):	521
Casing Diameter (in):	5
Static Water Level (ft bmp):	144.45
Casing Volume (gal):	384 x3 = 1,152
Total Volume Purged (gal):	1,316

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:57	Pump On						
12:27	30	14	420	7.27	21.2	422.1	
12:57	60	14	840	7.38	21.2	417.1	
13:27	90	14	1,260	7.36	21.3	412.6	
1331							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (2) Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-3BL	13:29	Poly	250	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/15/21

Well ID: BMQ-2014-3BU Weather: Cloudy, 90s

ADWR No: 917 494 Sampler: JA

WELL DATA

Well Depth (ft bls): 288

Casing Diameter (in): 5

Static Water Level (ft bmp): 145.56

Casing Volume (gal): 145 x3 = 436

Total Volume Purged (gal): 476

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
13:38	Pump On						
13:48	10	14	140	7.36	20.0	480.1	
13:58	20	14	280	7.35	19.9	478.1	
14:08	30	14	420	7.35	19.9	477.1	
1412							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMQ-2014-3BU	14:09	Poly	250mL	1	3000	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/14/21

Well ID: BMQ-2014-4B Weather: Cloudy, 90s, humid

ADWR No: 917620 Sampler: JA

WELL DATA

Well Depth (ft bls): 258

Casing Diameter (in): 5

Static Water Level (ft bmp): 138.73

Casing Volume (gal): 122 x3 = 366

Total Volume Purged (gal): 518

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:17	Pump On						
10:27	10	14	140	7.37	20.1	474.7	
10:37	20	14	280	7.39	20.1	473.3	
10:47	30	14	420	7.38	20.2	472.9	
1054							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMQ-2014-4B	10:50	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/14/21

Well ID: BMO-2014-4BL Weather: Cloud, 90s, humid

ADWR No: 917619 Sampler: JA

WELL DATA

Well Depth (ft bls): 261

Casing Diameter (in): 5

Static Water Level (ft bmp): 138.15

Casing Volume (gal): 125 x3 = 376

Total Volume Purged (gal): 490

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0935	Pump On						
0945	10	14	140	7.35	20.3	578.6	
0955	20	14	280	7.34	20.3	607.4	
1005	30	14	420	7.34	20.3	612.8	
1010							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (a) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-4BL	1007	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/14/21
Well ID:	BMO-2015-1B	Weather:	overcast, 90s, humid
ADWR No:	917622	Sampler:	JA

WELL DATA

Well Depth (ft bls):	244
Casing Diameter (in):	5
Static Water Level (ft bmp):	134.63
Casing Volume (gal):	1/2 x3 = 336
Total Volume Purged (gal):	462

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1135	Pump On						
1145	10	14	140	7.31	20.1	738.9	
1155	20	14	280	7.40	20.1	730.8	
1205	30	14	420	7.36	20.0	728.2	
1208							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-1B	1207	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/14/21

Well ID: BMO-2815-1BL Weather: Overcast, 90s, humid, 19:-

ADWR No: 917621 Sampler: JA

WELL DATA

Well Depth (ft bls): 241

Casing Diameter (in): 5

Static Water Level (ft bmp): 135.90

Casing Volume (gal): 107 x3 = 322

Total Volume Purged (gal): 490

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1215	Pump On						
1225	10	14	140	7.31	20.1	843.6	
1235	20	14	280	7.32	20.1	844.5	
1245	30	14	420	7.32	20.2	840.4	
1250							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2815-1BL	1247	Poly	250mL	1	300.0	NP	Y
							Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/14/21

Well ID: BMQ-2015-2B Weather: cloudy, 90s

ADWR No: 917827 Sampler: JA

WELL DATA

Well Depth (ft bls): 268

Casing Diameter (in): 5

Static Water Level (ft bmp): 154.56

Casing Volume (gal): 116 x3 = 348

Total Volume Purged (gal): 476

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0735	Pump On						
0745	10	14	140	7.13	20.1	932.6	
0755	20	14	280	7.27	20.1	909.2	
0805	30	14	420	7.15	20.1	895.6	
0809							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMQ-2015-2B	8:07	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/14/21

Well ID: BMO-2015-2BL Weather: Cloudy, 90s

ADWR No: 917828 Sampler: JA

WELL DATA

Well Depth (ft bls): 272

Casing Diameter (in): 5

Static Water Level (ft bmp): 153.24

Casing Volume (gal): 121 x3 = 363

Total Volume Purged (gal): 714

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0815	Pump On						
0830	15	14	210	7.10	20.3	978.7	
0845	30	14	420	7.10	20.3	965.3	
0900	45	14	630	7.11	20.3	957.5	
0906							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-2BL	0903	poly	250 mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/29/21

Well ID: BURKE | Weather: Overcast, 90s

ADWR No: 212268 | Sampler: JA

WELL DATA

Well Depth (ft bls): 781

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): NA x3 =

Total Volume Purged (gal): 132

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1405	Pump On						
1409	4	12		7.78	23.8	4832	
1412	7	12		7.77	23.8	483.2	
1415	10	12		7.77	23.8	483.3	
1716							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Spigot by storage tank & pressure tank

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BURKE	14:16	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: No WL per owner request / owner not present for permission for WL

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Purged storage tank for 10 min

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/29/21

Well ID: CHAMBERS Weather: cloudy, 90s

ADWR No: 629807 Sampler: JH

WELL DATA

Well Depth (ft bls): 245

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Well						
		Inspect					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WIO

Additional Comments: Well not connected to power

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/21/21

Well ID: COB MW-1B Weather: pt. cloudy, 90s

ADWR No: 225906 Sampler: JH

WELL DATA

Well Depth (ft bls): 500

Casing Diameter (in): 6

Static Water Level (ft bmp): use 240.27 (from 7/14/2017)

Casing Volume (gal): 382 x3 = 1,146

Total Volume Purged (gal): 1,296

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10 40	Pump On						
11 10	30	12	360	6.79	20.9	1694	
11 40	60	12	720	6.76	20.8	1784	
12 10	90	12	1,080	6.76	20.7	1793	
12 20	100	12	1,200	6.75	20.8	1790	
1228							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB MW-1B	12:23	Poly	250 mL	1	300.0	NP	y
DUP20210721	(12:23) 12:00	Poly	250 mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: No WLs per owner request due to multiple stock sounders (CCA/MWC/COB)

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/21/21
Well ID:	COB MW-2	Weather:	pt Cloudy, 80s
ADWR No:	903984	Sampler:	JA

WELL DATA

Well Depth (ft bls):	162
Casing Diameter (in):	4
Static Water Level (ft bmp):	135.43
Casing Volume (gal):	17 x3 = 52
Total Volume Purged (gal):	114

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0921	Pump On						
0926	5	6	30	7.16	19.0	592.3	
0931	10	6	60	7.15	19.2	597.7	
0936	15	6	90	7.15	19.3	599.7	
0940							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: PVC adapter pipe

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB MW-2	09:39	Poly	250mL	1	300.0	WP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand Filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/21/21

Well ID: CQB MW-3 Weather: clear, 80s

ADWR No: 906823 Sampler: JH

WELL DATA

Well Depth (ft bls): 300

Casing Diameter (in): 4

Static Water Level (ft bmp): 136.83

Casing Volume (gal): 106 x3 = 318

Total Volume Purged (gal): 500

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0836	Pump On						
0841	5	20	100	7.27	19.6	505.0	
0846	10	20	200	7.42	19.7	518.3	
0851	15	20	300	7.36	19.7	521.6	
0856	20	20	400	7.33	19.7	534.5	
0901							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other) PVC riser pipe

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
CQB MW-3	09:59	poly	250 ml	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/12/21

Well ID: COB WL Weather: Clear, 100s

ADWR No: 593116 Sampler: JA

WELL DATA

Well Depth (ft bls): 150

Casing Diameter (in): 4

Static Water Level (ft bmp): 97.54

Casing Volume (gal): 34 x3 = 102

Total Volume Purged (gal): 110

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1215	Pump On						
1220	5	7	35	7.01	20.6	1086	
1225	10	1	40	7.14	21.4	1085	
1255	30	1	80	7.15	22.4	1083	
1315	50	1	80	7.14	22.5	1083	
1340	75	1	105	7.13	22.7	1082	
1346							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other): PVC adapter pipe

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB WL	1345	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/16/21

Well ID: COOPER Weather: cloudy, 80s

ADWR No: 623564 Sampler: JA

WELL DATA

Well Depth (ft bls): 325

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Well						
		Irrigable					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WID							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other: Port cannot be removed without damage

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: well disconnected / replaced by COOPER 988

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/16/21

Well ID: COOPER 988 Weather: Overcast, 80s, rain

ADWR No: 232988 Sampler: JA

WELL DATA

Well Depth (ft bls):	600
Casing Diameter (in):	6
Static Water Level (ft bmp):	326.57
Casing Volume (gal):	402 x3 = 1,206
Total Volume Purged (gal):	1,356

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1040	Pump On						
11:00	20	12	240	7.96	24.2	410.1	
11:20	40	12	480	7.95	24.7	412.4	
11:40	60	12	720	7.97	24.4	410.3	
12:00	80	12	960	7.98	24.4	411.9	
12:20	100	12	1200	7.96	24.2	410.1	
12:30	110	12	1320	7.97	24.1	414.0	
12:33							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Spigot on South house, north wall

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COOPER 988	12:33	Poly	250mL	1	300.0	NP	Y
DUP20210716	(12:33) 12:00	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-27-21

Well ID: Cooper C Weather: Sunny

ADWR No: Sampler: Christopher L Shanny

WELL DATA

Well Depth (ft bls): 220'

Casing Diameter (in): 6"

Static Water Level (ft bmp): 167.22

Casing Volume (gal): 80.2 x3 = 240.7

Total Volume Purged (gal): 270

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0930	Pump On						
0940	10	9	90	6.91	22.4	1522	
0950	20	9	180	6.89	22.4	1523	
1000	30	9	270	6.88	22.5	1523	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Cooper C	1000	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [x] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

52.8

almost

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/21/21
Well ID:	DODSON	Weather:	Clear, humid, 80's
ADWR No:	644927	Sampler:	RT

WELL DATA

Well Depth (ft bls):	700
Casing Diameter (in):	6
Static Water Level (ft bmp):	101.04
Casing Volume (gal):	145.47 x3 = 436
Total Volume Purged (gal):	480

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:50	Pump On						
11:00	10	12	120	7.08	20.7	2193	
11:10	20	12	240	7.09	20.7	2143	
11:20	30	12	360	7.07	20.7	2101	
11:30	40	12	480				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: Spigot back of house)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
DODSON	11:29	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/19/21
Well ID:	Douglas 791	Weather:	Sunny, Scattered Clouds
ADWR No:	592791	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	200
Casing Diameter (in):	5
Static Water Level (ft bmp):	32.38
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WLO					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/19/21
Well ID:	Douglas 792	Weather:	Sunny / Scattered Clouds
ADWR No:	592792	Sampler:	RT

WELL DATA

Well Depth (ft bls):	~~200~~
Casing Diameter (in):	5
Static Water Level (ft bmp):	86.15
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	~~7/~~ 7/23/21
Well ID:	EAST	Weather:	Overcast, 70's
ADWR No:	599796	Sampler:	RT

WELL DATA

Well Depth (ft bls):	125
Casing Diameter (in):	6
Static Water Level (ft bmp):	78.88
Casing Volume (gal):	~~26~~ ~~7.8~~ x3 = 203
Total Volume Purged (gal):	261

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
~~0~~845	Pump On						
1053	8	9	72	7.25	20.5	599.9	
1056	11	9	99	7.23	20.5	603.0	
1103	18	9	162	7.22	20.6	603.0	
1114	29	9	261				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
EAST	1113	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/21/21

Well ID: ECHAVE Weather: pt cloudy, 80s

ADWR No: 219449 Sampler: JH

WELL DATA

Well Depth (ft bls):	345
Casing Diameter (in):	6
Static Water Level (ft bmp):	222.59
Casing Volume (gal):	180 x3 = 540
Total Volume Purged (gal):	120

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:00	Pump On						
10:05	5	6	30	7.73	25.9	391.9	
10:10	10	6	60	7.72	25.8	390.6	
10:15	15	6	90	7.70	26.1	390.3	
10 20							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Spigot on wall of garage

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ECHAVE	10:17	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Purge from storage tank to purge the well

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/21/21
Well ID:	~~EPPELF~~ EPPELF 641	Weather:	Clear, 80's
ADWR No:	805 641	Sampler:	RT

WELL DATA

Well Depth (ft bls):	265
Casing Diameter (in):	8
Static Water Level (ft bmp):	IWL/NPA
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			No Property Access				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	NPA						

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: NPA

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized
- ☐ Purged well until field parameters stabilized.
- ☒ Other: NPA

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/22/21
Well ID:	FRANCO 383	Weather:	Sunny, 80's
ADWR No:	221383	Sampler:	RT

WELL DATA

Well Depth (ft bls):	711
Casing Diameter (in):	5
Static Water Level (ft bmp):	200.62
Casing Volume (gal):	520.59 x3 = 1562
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0930	Pump On						
0950	20	12	240	7.40	26.0	1110	
1010	40	12	480	7.42	26.0	1108	
1040	70	12	840	7.39	26.1	1105	
1110	100	12	1200	7.39	26.1	1099	
1130	120	12	1440	7.36	26.3	1101	
1144	134	12	1608				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
FRANCO 383	1142	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/2/24

Well ID: GARNER 557 Weather: Partly Cloudy, 90's

ADWR No: 558557 Sampler: RT

WELL DATA

Well Depth (ft bls): ~~300~~

Casing Diameter (in): 6

Static Water Level (ft bmp): 283.52

Casing Volume (gal): x3 =

Total Volume Purged (gal): WLO

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/21/21

Well ID: GARNER 635 | Weather: Partly Cloudy, T-storms

ADWR No: 587635 | Sampler: RT

WELL DATA

Well Depth (ft bls): 680

Casing Diameter (in): 5

Static Water Level (ft bmp): 206.36

Casing Volume (gal): 483.11 x3 = 1449

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1300	Pump On						
1320	20	9	180	7.50	24.0	474.1	
1340	40	9	360	7.52	24.7	472.4	
1400	60	9	540	7.52	24.7	472.8	
1430	90	11	870	7.52	24.6	478.2	
1500	120	11	1200	7.52	24.1	476.9	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
GARNER 635	1531	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/12/21

Well ID: GOAR RANCH Weather: clear, 100s

ADWR No: 610695 Sampler: SA

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 7

Static Water Level (ft bmp): 196.50

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WL		O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 9-20-21

Well ID: Hoban Weather: Sunny - Calm

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 300

Casing Diameter (in): 5

Static Water Level (ft bmp): 175.81

Casing Volume (gal): 126.6 x3 = 380

Total Volume Purged (gal): 528

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0710	10	17.6	176	6.91	21.6	1175	
0720	20	17.6	352	6.89	21.6	1180	
0730	30	17.6	528	6.91	21.7	1182	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Hoban	0730	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/28/21
Well ID:	HOWARD 312	Weather:	clear, 90s
ADWR No:	221312	Sampler:	JA

WELL DATA

Well Depth (ft bls):	980
Casing Diameter (in):	5
Static Water Level (ft bmp):	214.78
Casing Volume (gal):	781 x3 = 2,343
Total Volume Purged (gal):	2,376

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:21	Pump On						
11:21	60	9	540	8.02	23.8	605.9	
12:21	120	9	1,080	7.98	25.8	607.7	
13:21	180	9	1,620	7.98	25.9	609.4	
14:21	240	9	2,160	7.97	25.9	609.3	
14:42	261	9	2,349	7.97	25.9	609.2	
1445							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Spigot by pressure tank

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
HOWARD 312	1445	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/28/21

Well ID: HOWARD NR Weather: Mostly Clear, 90s

ADWR No: NR Sampler: JA

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): 162.43

Casing Volume (gal): 85 x3 = 255

Total Volume Purged (gal): 310

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1450	Pump On						
1500	10	10	100	7.26	20.0	1055	Brown water
1510	20	10	200	7.10	20.0	1166	↓
1515	25	10	250	6.99	20.0	1220	clearing
1520	30	10	300	6.98	19.9	1238	
1521							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
HOWARD NR	1521	Poly	250mL	1	3000	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/13/21

Well ID: KEEFER Weather: Mostly Cloudy, 90s

ADWR No: 209744 Sampler: JA

WELL DATA

Well Depth (ft bls): 246

Casing Diameter (in): 6

Static Water Level (ft bmp): 146.78

Casing Volume (gal): 144 x3 = 432

Total Volume Purged (gal): 480

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1438	Pump On						
1453	15	10	150	7.31	21.4	498.4	
1508	30	10	300	7.32	20.7	502.5	
1523	45	10	450	7.30	20.4	505.3	
1526							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
KEEFER		Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: _____ Client: Freeport Copper Queen Branch

Task No: _____ Date: 9-20-21

Well ID: LADD-251 Weather: Sunny - Calm

ADWR No: _____ Sampler: Christopher L Shannon

WELL DATA

Well Depth (ft bls): _____

Casing Diameter (in): _____

Static Water Level (ft bmp): 226.48

Casing Volume (gal): x3 =

Total Volume Purged (gal): _____

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: _____ Client: Freeport Copper Queen Branch

Task No: _____ Date: 9-20-21

Well ID: LADD-538 Weather: Sunny - Calm

ADWR No: _____ Sampler: Christopher L Slumm

WELL DATA

Well Depth (ft bls): _____

Casing Diameter (in): _____

Static Water Level (ft bmp): 211.29

Casing Volume (gal): x3 =

Total Volume Purged (gal): _____

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: _____ Client: Freeport Copper Queen Branch

Task No: _____ Date: 9-20-21

Well ID: LADD-635 Weather: Sunny - Calm

ADWR No: _____ Sampler: Christopher L Sharma

WELL DATA

Well Depth (ft bls): _____

Casing Diameter (in): _____

Static Water Level (ft bmp): NO ACCESS

Casing Volume (gal): x3 =

Total Volume Purged (gal): _____

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: _____ Client: Freeport Copper Queen Branch

Task No: _____ Date: 9-20-21

Well ID: LADD-837 Weather: Sunny - Calm

ADWR No: _____ Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls): _____

Casing Diameter (in): _____

Static Water Level (ft bmp): 295.30

Casing Volume (gal): x3 =

Total Volume Purged (gal): _____

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: _____ Client: Freeport Copper Queen Branch

Task No: _____ Date: 9-20-21

Well ID: LADD-977 Weather: Sunny - Calm

ADWR No: _____ Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls): _____

Casing Diameter (in): _____

Static Water Level (ft bmp): 88.60

Casing Volume (gal): x3 =

Total Volume Purged (gal): _____

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/26/21

Well ID: MARCELL Weather: cloudy, 90s

ADWR No: NR Sampler: JA

WELL DATA

Well Depth (ft bls): ~220

Casing Diameter (in): 6

Static Water Level (ft bmp): DWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		No Property Access				Unable to Sample	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
DWL							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☑ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/27/21

Well ID: MCCONNELL 265 Weather: pt cloudy, 80s

ADWR No: 539265 Sampler: JA

WELL DATA

Well Depth (ft bls): 216

Casing Diameter (in): 6

Static Water Level (ft bmp): 168.73

Casing Volume (gal): NA x3 =

Total Volume Purged (gal): NA

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		Well					
			Inaudible				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WIO

Additional Comments: Well disconnected from power

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/27/21

Well ID: MCCONNELL 459 Weather: pt cloudy, 90s

ADWR No: 221459 Sampler: JA

WELL DATA

Well Depth (ft bls): 863

Casing Diameter (in): 5

Static Water Level (ft bmp): 171.67

Casing Volume (gal): 691 x3 = 2,074

Total Volume Purged (gal): 2,220

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
09:00	Pump On						
09:45	45	12	540	7.93	24.3	450.7	
10:30	90	12	1,080	7.93	24.5	448.4	
11:15	135	12	1,620	7.93	24.6	446.6	
12:00	180	12	2,160	7.92	24.7	447.2	
12:05							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
MCCONNELL 459	12:02	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/19/21
Well ID:	METZLER	Weather:	pt. cloudy, 80s
ADWR No:	35-71891	Sampler:	JA

WELL DATA

Well Depth (ft bls):	351
Casing Diameter (in):	6
Static Water Level (ft bmp):	297.02
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		W	C	O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/28/21

Well ID: MOORE | Weather: Mostly clear, 90s

ADWR No: 538847 | Sampler: JA

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): 158.86

Casing Volume (gal): 90 x3 = 270

Total Volume Purged (gal): 308

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0925	Pump On						
0930	5	11	55	7.27	21.1	446.5	
0935	10	11	110	7.31	21.1	444.8	
0950	25	11	275	7.31	21.1	445.6	
0953							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Hose Tee nearest well by gate

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
MOORE	0953	poly	250mL	1	300.0	VP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/19/21

Well ID: NESS | Weather: Cloudy 80's - 90's

ADWR No: 509127 | Sampler: RT

WELL DATA

Well Depth (ft bls): 812

Casing Diameter (in): 6

Static Water Level (ft bmp): 610.72

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
1600				7.82	26.8	583.1	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other:) spigot by booster pump

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NESS	1600	Poly	250mL	1	3000	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: Water storage tank sampled

Additional Comments: Hand filtered sample. Combo code 23-9-25

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/20/21

Well ID: NOTEMAN | Weather: Partly Cloudy, 90's

ADWR No: 212483 | Sampler: RTinnell

WELL DATA

Well Depth (ft bls): 470

Casing Diameter (in): 5

Static Water Level (ft bmp): 327.54 from 2/26/08

Casing Volume (gal): 145 x3 = 435

Total Volume Purged (gal): 469

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1246	Pump On						
1256	10	10	~~100~~	6.44	23.7	1322	
1306	20	9	190	6.59	23.0	1323	
1316	30	9	280	6.53	23.8	1328	
1326	40	9	370	6.53	23.5	1328	
~~1336~~							
1337	51		469				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other) Spigot under fake rock.

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NOTEMAN	1337	Poly	250mL	1	300	NP	X

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/28/21

Well ID: NSD-02 Weather: clear, 80s

ADWR No: 527587 Sampler: JA

WELL DATA

Well Depth (ft bls): 120

Casing Diameter (in): 12

Static Water Level (ft bmp): 107.64

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/28/21
Well ID:	NSD-03	Weather:	clear 90s
ADWR No:	527586	Sampler:	JH

WELL DATA

Well Depth (ft bls):	100
Casing Diameter (in):	12
Static Water Level (ft bmp):	94.33
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		W	L	O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: NWC-02 | Weather: clear, 80s

ADWR No: 562944 | Sampler: JA

WELL DATA

Well Depth (ft bls): 312

Casing Diameter (in): 6

Static Water Level (ft bmp): 173.15

Casing Volume (gal): 204 x3 = 612

Total Volume Purged (gal): 1,530

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0840	Pump On						
0845	5	90	450	7.32	20.6	440.1	
0850	10	90	900	7.37	20.6	440.8	
0855	15	90	1,350	7.36	20.6	442.6	
0857							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-02	0857	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: NWC-03 CAP | Weather: clear, 80s

ADWR No: 627684 | Sampler: JH

WELL DATA

Well Depth (ft bls): 179

Casing Diameter (in): 8

Static Water Level (ft bmp): Dry

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		W	L	O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other: Sounder probe came up w/ dirt on it - Dry

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: NWC-04 | Weather: clear, 80s

ADWR No: 551849 | Sampler: JA

WELL DATA

Well Depth (ft bls): 462

Casing Diameter (in): 10

Static Water Level (ft bmp): DWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
(10)	(4.08)
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0915	Pump On						
0920	5	16	80	7.31	23.4	863.7	
0925	10	16	160	7.29	23.4	862.7	
0930	15	16	240	7.29	23.5	862.5	
Auto							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-04	0933	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand Filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: NWC-06 | Weather: Clear, 80s

ADWR No: 575700 | Sampler: JA

WELL DATA

Well Depth (ft bls):	340
Casing Diameter (in):	8
Static Water Level (ft bmp):	167.26
Casing Volume (gal):	451 x3 = 1,353
Total Volume Purged (gal):	2,192

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
(8)	(2.61)
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0807	Pump On						
0812	5	137	685	7.38	21.1	408.2	
0817	10	137	1,370	7.37	21.1	410.0	
0822	15	137	2,055	7.35	21.1	412.0	
Auto							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-06	0823	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand Filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/27/21

Well ID: OLMO5 Weather: Sunny, 90s

ADWR No: 224745 Sampler: JA

WELL DATA

Well Depth (ft bls): 306

Casing Diameter (in): 6

Static Water Level (ft bmp): 153.85

Casing Volume (gal): 224 x3 = 672

Total Volume Purged (gal): 704

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
12:45	Pump On						
13:05	20	11	220	7.38	20.2	419.4	
13:25	40	11	440	7.38	20.3	420.7	
13:47	62	11	682	7.35	20.4	428.1	
13:49							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
OLMO5	13:49	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/29/21

Well ID: OSBORN Weather: Cloudy, 90s

ADWR No: 643436 Sampler: JA

WELL DATA

Well Depth (ft bls): 258

Casing Diameter (in): 5

Static Water Level (ft bmp): INL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	We	11					
			Inoperable				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WIO

Additional Comments: Hauling water, pump inoperable, property for sale

C:\Users\jalden\Desktop\Common Forms\CQB Groundwater Sampling Sheet 2019-01-03

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/28/21

Well ID: PALMER | Weather: Partly Cloudy, 90's

ADWR No: 578819 | Sampler: RTinnell

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
1417	N/A	N/A	N/A	8.41	27.2	488.7	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other:) From kitchen sink in dacon bottle,

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PALMER	1519	Poly	250mL	1	~~300~~	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Did not purge

Additional Comments: New owner. They ~~may~~ will let us check wells.

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: PANAGAKOS | Weather: Partly Cloudy, 90's

ADWR No: 35-76413 | Sampler: RT

WELL DATA

Well Depth (ft bls):	200
Casing Diameter (in):	8
Static Water Level (ft bmp):	162.18
Casing Volume (gal):	98.71 x3 = 296
Total Volume Purged (gal):	351

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
(8)	~~2.61~~
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
~~1300~~	Pump On						
1310	~~10~~	9	~~90~~	7.10	21.2	1135	
1320	~~20~~	9	~~180~~	7.17	21.3	~~1110~~	
1330	~~30~~	9	~~270~~	7.12	21.4	1126	
1339	39	351					Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: Spigot behind house.)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PANAGAKOS	1339	250mL Poly		1	~~300.0~~	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: PARRA | Weather: Partly Cloudy, 80's

ADWR No: 576425 | Sampler: RT

WELL DATA

Well Depth (ft bls): 355

Casing Diameter (in): 6

Static Water Level (ft bmp): use 288.99 bmp from 7/28/99

Casing Volume (gal): 109 x3 = 327

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	~~1.47~~
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1745	Pump On						
1755	10	13	130	7.10	21.2	1138	
1802	17	13	221	6.99	21.2	1134	
1806	21	13	273	6.99	21.2	1140	
1810	25	13	325	7.00	21.2	1137	
1816							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PARRA	1815	Poly	250mL	1	300.0	N	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected. yes
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [x] Other: Hist tank data from 7/20/99

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7-23-21

Well ID: PIONKE 395 Weather: Cloudy, 80s

ADWR No: 613395 Sampler: JH

WELL DATA

Well Depth (ft bls): 330

Casing Diameter (in): 8

Static Water Level (ft bmp): 160.98

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Well						
			Impurable				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WIO

Additional Comments: No power or pump not functional

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/23/21

Well ID: PIONKE 517 | Weather: cloudy, 80s

ADWR No: 221517 | Sampler: JH

WELL DATA

Well Depth (ft bls):	604
Casing Diameter (in):	5
Static Water Level (ft bmp):	157.77
Casing Volume (gal):	455 x3 = 1,366
Total Volume Purged (gal):	1,649

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:01	Pump On						
10:31	30	17	510	7.44	22.0	388.6	
11:01	60	17	1,020	7.48	22.0	389.2	
11:31	90	17	1,530	7.46	22.0	388.9	
11:38							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PIONKE 517	11:33	poly	250mL	1	300.0	IUP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/20/21

Well ID: POOL | Weather: Cloudy, 80s

ADWR No: 509518 | Sampler: JA

WELL DATA

Well Depth (ft bls): 313

Casing Diameter (in): 6

Static Water Level (ft bmp): 214.78

Casing Volume (gal): 144 x3 = 433

Total Volume Purged (gal): ~30

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1452	Pump On						
1453	1	5*	5	7.54	24.9	563.0	
1454	2	5	10	7.57	24.3	563.4	
1455	3	5	15	7.55	24.2	562.8	
1458							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: Spigot on wall near wellhead)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
POOL	1458	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: *NO purge per owner request. *Spigot open halfway, purged until pump turned on

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/19/21

Well ID: POWER 639 Weather: pt. cloudy, 80s

ADWR No: 222639 Sampler: JA

WELL DATA

Well Depth (ft bls): 480

Casing Diameter (in): 6

Static Water Level (ft bmp): 297.92

Casing Volume (gal): 268 x3 = 804

Total Volume Purged (gal): 920

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
12:45	Pump On						
13:05	20	10	200	7.60	20.9	568.1	
13:25	40	10	400	7.46	20.8	699.3	
13:45	60	10	600	7.36	20.7	796.1	
14:05	80	10	800	7.35	20.7	815.3	
14:15	90	10	900	7.35	20.7	807.2	
1417							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
POWER 639	14:17	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/29/21

Well ID: RAMIREZ Weather: Cloudy, 90s

ADWR No: 216425 Sampler: JA

WELL DATA

Well Depth (ft bls): 300

Casing Diameter (in): 6

Static Water Level (ft bmp): 171.34

Casing Volume (gal): 184 x3 = 567

Total Volume Purged (gal): 605

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1130	Pump On						
11:45	15	11	165	7.33	21.6	398.1	
12:00	30	11	330	7.31	21.7	406.5	
12:15	45	11	495	7.31	21.6	410.3	
12:22	52	11	572	7.30	21.6	409.2	
12 25							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / (near) wellhead Other: Jet jet by pressure tank

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RAMIREZ	12:25	Poly	250mL	1	300.0	NP	y
DUP20210729	(12:27 12:00)	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/23/21

Well ID: RAY | Weather: Overcast, 70's

ADWR No: 803772 | Sampler: RT

WELL DATA

Well Depth (ft bls): ~~100~~

Casing Diameter (in): 8

Static Water Level (ft bmp): 48.66

Casing Volume (gal): 133.9974 x3 = 402

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
(8)	(2.61)
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
~~0900~~	Pump On						
~~0910~~	~~10~~	~~10~~	~~100~~	6.86	20.3	1771	
~~0920~~	~~20~~	~~10~~	~~200~~	6.90	20.4	1755	
~~0935~~	~~35~~	~~10~~	~~350~~	6.89	20.5	~~1704~~	
~~0940~~	~~40~~	~~10~~	~~400~~	6.88	20.5	~~1701~~	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RAY	~~0945~~	Poly	250mL	1	300.0	NP	Y
DUP-072321	~~1200~~	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/22/21

Well ID: ROGERS 596 Weather: pt cloudy, 90s

ADWR No: 573596 Sampler: JA

WELL DATA

Well Depth (ft bls): 290

Casing Diameter (in): 6

Static Water Level (ft bmp): 145.37

Casing Volume (gal): 213 x3 = 639

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:10	Pump On						
10:40	30	6	180	6.83	22.7	1624	
11:10	60	6	360	6.89	22.2	1512	
11:40	90	6	540	6.91	22.2	1432	
12:00	110	6	660	6.90	22.3	1439	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: Spigot tee in driveway)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ROGERS 596	12:04	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/21

Well ID: ROGERS #03 | Weather: Pt. Cloudy, 90s

ADWR No: 641803 | Sampler: JA

WELL DATA

Well Depth (ft bls): 140

Casing Diameter (in): 6

Static Water Level (ft bmp): DRY / Iwl

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		well					
			Imperable				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [x] Other: Well is dry

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WIO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/14/21

Well ID: ROGERS E Weather: Overcast, 90s, humid

ADWR No: 216018 Sampler: SH

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 6

Static Water Level (ft bmp): 161.68

Casing Volume (gal): 181 x3 = 544

Total Volume Purged (gal): 756

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1330	Pump On						
1345	15	12	180	7.32	20.6	448.9	
1400	30	12	360	7.31	20.6	447.7	
1415	45	12	540	7.32	20.5	447.5	
1430	60	12	720	7.34	20.6	446.7	
1433							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / (near) wellhead Other: Spigot by pressure tank

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ROGERS E	1433	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/21/21

Well ID: RUIZ | Weather: PT Cloudy, 90s

ADWR No: 531770 | Sampler: JH

WELL DATA

Well Depth (ft bls): 312

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL - capped

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		Well					
			Inoperable				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WIO

Additional Comments: Pump has been removed & cap welded on / replaced by RUIZ 146

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/21/21

Well ID: RUIZ 146 | Weather: pt cloudy, 90s

ADWR No: 232146 | Sampler: JA

WELL DATA

Well Depth (ft bls): 500

Casing Diameter (in): 6

Static Water Level (ft bmp): 301.91

Casing Volume (gal): 291 x3 = 873

Total Volume Purged (gal): 75 (150)

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	<1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1450	Pump On						
1455	5	5	25*	7.35	21.1	597.7	
1500	10	5	50	7.32	21.0	612.2	
1505	15	5	75	7.29	20.9	635.0	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other): Spigot on WP pipe to tank

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RUIZ 146	1505	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: * Additional 5 gpm flowing to storage tank

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/20/21

Well ID: SCHWARTZ Weather: Cloudy, 80s

ADWR No: 210865 Sampler: SH

WELL DATA

Well Depth (ft bls): 305

Casing Diameter (in): 6

Static Water Level (ft bmp): 134.17

Casing Volume (gal): 251 x3 = 753

Total Volume Purged (gal): 1,020

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1300	Pump On						
1320	20	12	240	7.20	20.4	691.4	
1340	40	12	480	7.31	20.4	705.3	
1400	60	12	720	7.29	20.4	717.4	
1420	80	12	960	7.30	20.4	726.5	
1425							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
SCHWARTZ	1425	Poly	250mL	1	3060	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/21/20

Well ID: STEPHENS | Weather: Clear, 80's Humid

ADWR No: 808560 | Sampler: RT

WELL DATA

Well Depth (ft bls): N/A

Casing Diameter (in):

Static Water Level (ft bmp): 54.09

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: ~~Hourly~~ WLO

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/28/21

Well ID: TERRY | Weather: Overcast, 80s

ADWR No: 229 470 | Sampler: JA

WELL DATA

Well Depth (ft bls): NA (~210)

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal): 170

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1533	Pump On						
1538	5	10	50	7.41	20.0	454.6	
1543	10	10	100	7.39	20.0	455.7	
1548	15	10	150	7.38	20.0	457.8	
1550							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Spigot ize nearest wellhead

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TERRY	15:50	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☑ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☑ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 9/3/21

Well ID: TERRY 101 Weather: mostly cloudy

ADWR No: 55- 234101 Sampler: JA

WELL DATA

Well Depth (ft bls):	400 (396 per owner)
Casing Diameter (in):	6
Static Water Level (ft bmp):	153.21
Casing Volume (gal):	363 x3 = 1,089
Total Volume Purged (gal):	1,111

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	~~1.47~~
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:40	Pump On						
12:40	20	11	220	7.45	20.7	415.5	
12:20	40	11	440	7.41	20.6	414.4	
12:40	60	11	660	7.40	20.5	413.9	
13:00	80	11	880	7.39	20.5	413.6	
13:20	100	11	1,100	7.41	20.6	413.0	
13:21							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: Spigot near North wall of South yard)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TERRY 101	13:21	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/29/21
Well ID:	THOMPSON 151	Weather:	Cloudy 80s
ADWR No:	612 151	Sampler:	JA

WELL DATA

Well Depth (ft bls):	210
Casing Diameter (in):	7
Static Water Level (ft bmp):	IWL
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WL		O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments: Obstructed at ~50 ft

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/29/21

Well ID: THOMPSON 341 | Weather: Cloudy, 90s

ADWR No: 218341 | Sampler: JA

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 4

Static Water Level (ft bmp): 172.82

Casing Volume (gal): 224 x3 = 673

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1050	Pump On						
1055	5	NA	NA	7.20	20.8	420.9	
1058	8			7.23	20.8	419.6	
1059	9			7.23	20.8	417.6	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
THOMPSON 341	1107	poly	250mL	1	3dd	VP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Well pumps to tank, no full purge to avoid overflowing tank. Hanz filtered sample.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-13-21

Well ID: TM - 2A Weather: Partly cloudy

ADWR No: Sampler: Christopher L Skeem

WELL DATA

Well Depth (ft bls): 925

Casing Diameter (in): 4

Static Water Level (ft bmp): 336.80

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0530	Pump On						
0535	5	7.5	32	1.85	25.5	349	
0630	60	5.5	450	8.01	25.3	347	
0710	100	3.2	670	8.08	25.2	345	
0810	160	1.8	862	8.10	25.3	346	
0850	200	1.2	934	8.06	25.2	347	BSO 0940
1230/1521							SWL - 335.44
1250	20	5.5		8.14	25.0	355	
1310	40	5.5		8.12	24.9	357	
1330	60	5.5		8.14	24.9	359	Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-2A	1330	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other:

Additional Comments:

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-21-21

Well ID: TM-6 Weather: Sunny

ADWR No: Sampler: Christopher L Sturma

WELL DATA

Well Depth (ft bls): 200'

Casing Diameter (in): 4

Static Water Level (ft bmp): 164.61

Casing Volume (gal): 23.01 x3 = 69

Total Volume Purged (gal): 172

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0645	Pump On						
0650	5	11.5	57	7.46	20.5	537	
0655	10	11.5	115	7.48	20.5	536	
0700	15	11.5	172	7.49	20.5	536	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-6	0700	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 35.4

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-16-21

Well ID: TM-7 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sosa

WELL DATA

Well Depth (ft bls): 350

Casing Diameter (in): 4"

Static Water Level (ft bmp): 338.58

Casing Volume (gal): 7.4 x3 = 22.4

Total Volume Purged (gal): 80

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1130	Pump On						
1132	2	10	20	7.37	22.0	566	
1142	—	—					
1144	4	10	40	7.33	22.1	618	
1154	—	—					
1156	6	10	60	7.31	22.0	615	
1206	—	—					
1208	8	10	80	7.32	22.0	612	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-7	1208	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 115

Bladder Suction @ 2 min

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/12/21

Well ID: TM-10 USBP Weather: clear, 100s

ADWR No: 522696 Sampler: JA

WELL DATA

Well Depth (ft bls): 290

Casing Diameter (in): 4

Static Water Level (ft bmp): 267.17

Casing Volume (gal): 15 x3 = 45

Total Volume Purged (gal): 64

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1447	Pump On						
1452	5	10	50	7.70	20.5	366.2	Brown water
1457	10	9	55	7.74	20.4	364.7	clearing
1502	15	1	60	7.66	20.5	365.5	clear
1506							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: PVC pipe at wellhead

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-10 USBP	1505	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-12-21

Well ID: TM-15 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sturm

WELL DATA

Well Depth (ft bls): 325

Casing Diameter (in): 4

Static Water Level (ft bmp): 303.14

Casing Volume (gal): 14.2 x3 = 43

Total Volume Purged (gal): 270

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.81
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1100	Pump On						
1110	10	9	90	7.70	23.5	387	
1120	20	9	180	7.71	23.4	388	
1130	30	9	270	7.73	23.3	387	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-15	1130	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 21.9

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-15-21

Well ID: TM-16 Weather: Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 115

Casing Diameter (in): 4

Static Water Level (ft bmp): 63.20

Casing Volume (gal): 33.6 x3 = 101

Total Volume Purged (gal): 315

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0630	Pump On						
0635	5	21	105	7.10	21.2	1305	
0640	10	21	210	7.08	21.2	1301	
0645	15	21	315	7.06	21.2	1302	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-16	0645	PL	250	1	200	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 51.8

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-18-21

Well ID: TM-19A Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 700

Casing Diameter (in): 4

Static Water Level (ft bmp): 211.16

Casing Volume (gal): 317.7 x3 = 954

Total Volume Purged (gal): 1000

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0615	15	25	375	7.43	24.0	504	
0625	25	25	625	7.46	24.0	505	
0640	40	25	1000	7.47	24.1	504	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-19A	0640	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 489

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-21-21

Well ID: TM-42 Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 5

Static Water Level (ft bmp): 222.82

Casing Volume (gal): 27.7 x3 = 83.2

Total Volume Purged (gal): 150

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0550	Pump On						
0600	10	5	50	6.93	21.7	1503	
0610	20	5	100	6.91	21.7	1501	
0620	30	5	150	6.93	21.8	1500	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-42	0620	PL	250	1	300	Ice	X

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: ~~222~~

27.2

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/21/21

Well ID: TVI 236 | Weather: pt cloudy, 80s

ADWR No: 802236 | Sampler: JA

WELL DATA

Well Depth (ft bls):	222
Casing Diameter (in):	12
Static Water Level (ft bmp):	132.88
Casing Volume (gal):	NA x3 = NA
Total Volume Purged (gal):	NA

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	well						
		Inoperable					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WIO

Additional Comments: Well inoperable - power off

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/15/21

Well ID: TVI-713 Weather: cloud, FG

ADWR No: 567713 Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 8

Static Water Level (ft bmp): 137.15

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		W	L	O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/15/21
Well ID:	TVI - 875	Weather:	pt cloudy 90s
ADWR No:	568875	Sampler:	JA

WELL DATA

Well Depth (ft bls):	330
Casing Diameter (in):	8
Static Water Level (ft bmp):	IWL
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		Wet	11				
			Intermittable				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WIO

Additional Comments: No power to well

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7-21-21

Well ID: WEED Weather: Overcast, 90s, rain

ADWR No: 544535 Sampler: JA

WELL DATA

Well Depth (ft bls): 320

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal): 24*

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1540	Pump On						
15:42	2	*3		7.62	20.2	384.5	
15:43	3	3		7.62	20.1	384.3	
15:44	4	3		7.63	20.2	384.3	
1548							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WEED	1545	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: * Additional flow going into storage tank

C:\Users\jalden\Desktop\Common Forms\CQB Groundwater Sampling Sheet 2019-01-03

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/28/21
Well ID:	WEISKOPF 802	Weather:	pt. cloudy, 80s
ADWR No:	641802	Sampler:	JN

WELL DATA

Well Depth (ft bls):	200
Casing Diameter (in):	6
Static Water Level (ft bmp):	155.57
Casing Volume (gal):	NA x3 =
Total Volume Purged (gal):	NA

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		We	11				
			Inoperable				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WIO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WIO

Additional Comments: Pump disconnected from power

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/26/21

Well ID: WEISKOPF 897 Weather: pt. cloudy, 90s

ADWR No: 220897 Sampler: JA

WELL DATA

Well Depth (ft bls): 1,030

Casing Diameter (in): 5

Static Water Level (ft bmp): 155.25

Casing Volume (gal): 892 x3 = 2,677

Total Volume Purged (gal): 2,870

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:05	Pump On						
11:50	45	14	630	7.59	22.9	382.2	
12:35	90	14	1,260	7.59	22.9	380.0	
13:20	135	14	1,890	7.58	22.8	380.7	
14:05	180	14	2,520	7.59	22.9	380.5	
14:25	200	14	2,800	7.57	22.9	380.8	
1430							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WEISKOPF897	1427	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/27/21
Well ID:	ZANDER	Weather:	Cloudy, 90s
ADWR No:	205126	Sampler:	JA

WELL DATA

Well Depth (ft bls):	280
Casing Diameter (in):	6
Static Water Level (ft bmp):	157.15
Casing Volume (gal):	181 x3 = 543
Total Volume Purged (gal):	605

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
15:35	Pump On						
15:50	15	11	165	7.37	20.4	423.3	
16:05	30	11	330	7.37	20.4	423.6	
16:20	45	11	495	7.38	20.4	423.9	
16:25	50	11	550	7.37	20.4	423.8	
16 30							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ZANDER	16:29	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 12/14/21

Well ID: QWC-04 | Weather: Clear, 60s

ADWR No: 55/849 | Sampler: GK

WELL DATA

Well Depth (ft bls):	462
Casing Diameter (in):	10
Static Water Level (ft bmp):	~~IWC~~ IWL
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
(10)	(4.08)

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
820	Pump On						
0825	5	16	80	8.37*	22.2	865.4	
0830	10	16	160	7.85*	23.4	863.2	
0835	15	16	240	7.59*	23.4	863.5	
0840	20	16	320	7.34*	23.6	864.3	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at Wellhead

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
QWC-04	0843	Poly	400ml	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [x] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: *PH meter failed to calibrate. Conductivity calibrated fine.

Sampling from green handled spigot directly off well Hand filtered sample.

CLEAR CREEK ASSOCIATES

APPENDIX B

ANALYTICAL REPORTS

January 26, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21A0251
Order Name: CQB Quarterly

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 26 sample(s) on 01/08/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Date Received: 01/08/2021

Order: CQB Quarterly

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21A0251-01	AWC-05	Ground Water	01/04/2021 1040
21A0251-02	AWC-03	Ground Water	01/04/2021 1114
21A0251-03	DUP20210104	Ground Water	01/04/2021 1200
21A0251-04	FB20210104	Ground Water	01/04/2021 1200
21A0251-05	EQB20210104	Ground Water	01/04/2021 1200
21A0251-06	AWC-02	Ground Water	01/04/2021 1345
21A0251-07	BMO-2010-3B	Ground Water	01/05/2021 0917
21A0251-08	BMO-2010-3M	Ground Water	01/05/2021 1229
21A0251-09	TM-10 USBP	Ground Water	01/05/2021 1337
21A0251-10	BMO-2015-2B	Ground Water	01/06/2021 0812
21A0251-11	BMO-2015-2BL	Ground Water	01/06/2021 0856
21A0251-12	BMO-2015-1B	Ground Water	01/06/2021 1001
21A0251-13	BMO-2015-1BL	Ground Water	01/06/2021 1052
21A0251-14	BMO-2014-4BL	Ground Water	01/06/2021 1153
21A0251-15	BMO-2014-4B	Ground Water	01/06/2021 1239
21A0251-16	COB WL	Ground Water	01/06/2021 1454
21A0251-17	BMO-2014-2BL	Ground Water	01/07/2021 0831
21A0251-18	BMO-2014-2BU	Ground Water	01/07/2021 0911
21A0251-19	BMO-2014-1BU	Ground Water	01/07/2021 1019
21A0251-20	BMO-2014-3BL	Ground Water	01/07/2021 1257
21A0251-21	BMO-2014-3BU	Ground Water	01/07/2021 1342
21A0251-22	Weed	Ground Water	01/07/2021 1431
21A0251-23	Schwartz	Ground Water	01/08/2021 1143
21A0251-24	DUP20210108	Ground Water	01/08/2021 1200
21A0251-25	FB20210108	Ground Water	01/08/2021 1200
21A0251-26	EQB20210108	Ground Water	01/08/2021 1200

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Date Received: 01/08/2021

Case Narrative

This report has been revise to correct the result report for 21A0215-23. The result was re-analyzed in duplicate and was found to have been missing a 10X dilution factor in the first analysis. Only the re-analysis has been reported.

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-01

Client Sample ID: AWC-05
Collection Date/Time: 01/04/2021 1040
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	18.7	2.12	5.00		mg/L	1	01/08/2021 1528	01/08/2021 2311	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-02

Client Sample ID: AWC-03
Collection Date/Time: 01/04/2021 1114
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	73.6	10.6	25.0		mg/L	5	01/08/2021 1528	01/08/2021 2328	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-03

Client Sample ID: DUP20210104
Collection Date/Time: 01/04/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	18.4	2.12	5.00		mg/L	1	01/08/2021 1528	01/08/2021 2345	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-04

Client Sample ID: FB20210104
Collection Date/Time: 01/04/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/08/2021 1528	01/09/2021 0001	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-05

Client Sample ID: EQB20210104
Collection Date/Time: 01/04/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/08/2021 1528	01/09/2021 0018	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-06

Client Sample ID: AWC-02
Collection Date/Time: 01/04/2021 1345
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.6	2.12	5.00		mg/L	1	01/08/2021 1528	01/11/2021 2345	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-07

Client Sample ID: BMO-2010-3B
Collection Date/Time: 01/05/2021 0917
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	22.9	2.12	5.00		mg/L	1	01/08/2021 1528	01/09/2021 0052	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-08

Client Sample ID: BMO-2010-3M
Collection Date/Time: 01/05/2021 1229
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	9.23	2.12	5.00		mg/L	1	01/08/2021 1528	01/09/2021 0216	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-09

Client Sample ID: TM-10 USBP
Collection Date/Time: 01/05/2021 1337
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	14.5	2.12	5.00		mg/L	1	01/08/2021 1528	01/09/2021 0233	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-10

Client Sample ID: BMO-2015-2B
Collection Date/Time: 01/06/2021 0812
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	289	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0250	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-11

Client Sample ID: BMO-2015-2BL
Collection Date/Time: 01/06/2021 0856
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	336	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0307	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-12

Client Sample ID: BMO-2015-1B
Collection Date/Time: 01/06/2021 1001
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	213	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0324	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-13

Client Sample ID: BMO-2015-1BL
Collection Date/Time: 01/06/2021 1052
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	277	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0341	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-14

Client Sample ID: BMO-2014-4BL
Collection Date/Time: 01/06/2021 1153
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	153	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0357	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-15

Client Sample ID: BMO-2014-4B
Collection Date/Time: 01/06/2021 1239
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	54.3	10.6	25.0		mg/L	5	01/08/2021 1528	01/09/2021 0414	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-16

Client Sample ID: COB WL
Collection Date/Time: 01/06/2021 1454
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	77.0	10.6	25.0		mg/L	5	01/08/2021 1528	01/09/2021 0431	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-17

Client Sample ID: BMO-2014-2BL
Collection Date/Time: 01/07/2021 0831
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	481	21.2	50.0		mg/L	10	01/11/2021 1500	01/11/2021 1520	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-18

Client Sample ID: BMO-2014-2BU
Collection Date/Time: 01/07/2021 0911
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	58.2	10.6	25.0		mg/L	5	01/11/2021 1500	01/11/2021 1536	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-19

Client Sample ID: BMO-2014-1BU
Collection Date/Time: 01/07/2021 1019
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	185	21.2	50.0		mg/L	10	01/11/2021 1500	01/11/2021 1553	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-20

Client Sample ID: BMO-2014-3BL
Collection Date/Time: 01/07/2021 1257
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.63	2.12	5.00		mg/L	1	01/11/2021 1527	01/11/2021 1610	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-21

Client Sample ID: BMO-2014-3BU
Collection Date/Time: 01/07/2021 1342
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.04	2.12	5.00		mg/L	1	01/11/2021 1527	01/11/2021 1627	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-22

Client Sample ID: Weed
Collection Date/Time: 01/07/2021 1431
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	12.8	2.12	5.00		mg/L	1	01/11/2021 1527	01/11/2021 1644	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	Schwartz
Project:	CQB	**Collection Date/Time:**	01/08/2021 1143
Work Order:	21A0251	**Matrix:**	Ground Water
Lab Sample ID:	21A0251-23	**Order Name:**	CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	156	21.2	50.0		mg/L	10	01/11/2021 1527	01/25/2021 1612	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-24

Client Sample ID: DUP20210108
Collection Date/Time: 01/08/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	148	21.2	50.0		mg/L	10	01/11/2021 1527	01/13/2021 0029	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-25

Client Sample ID: FB20210108
Collection Date/Time: 01/08/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/11/2021 1527	01/11/2021 1734	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-26

Client Sample ID: EQB20210108
Collection Date/Time: 01/08/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/11/2021 1527	01/11/2021 1751	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Date Received: 01/08/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2101062 - E300.0 (2.1)										
Blank (2101062-BLK1)				Prepared & Analyzed: 01/08/2021						
Sulfate	ND	5.00	mg/L							
LCS (2101062-BS1)				Prepared & Analyzed: 01/08/2021						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2101062-BSD1)				Prepared & Analyzed: 01/08/2021						
Sulfate	12	5.00	mg/L	12.50		99	90-110	0.02	10	
Matrix Spike (2101062-MS1)		**Source: 21A0231-01**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	17	5.00	mg/L	12.50	6.1	86	80-120			
Matrix Spike (2101062-MS2)		**Source: 21A0251-04**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	12	5.00	mg/L	12.50	ND	98	80-120			
Matrix Spike Dup (2101062-MSD1)		**Source: 21A0231-01**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	17	5.00	mg/L	12.50	6.1	87	80-120	0.1	10	
Matrix Spike Dup (2101062-MSD2)		**Source: 21A0251-04**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	12	5.00	mg/L	12.50	ND	97	80-120	0.4	10	
Batch 2101080 - E300.0 (2.1)										
Blank (2101080-BLK1)				Prepared & Analyzed: 01/11/2021						
Sulfate	ND	5.00	mg/L							
LCS (2101080-BS1)				Prepared & Analyzed: 01/11/2021						
Sulfate	12	5.00	mg/L	12.50		97	90-110			
LCS Dup (2101080-BSD1)				Prepared & Analyzed: 01/11/2021						
Sulfate	12	5.00	mg/L	12.50		97	90-110	0.4	10	
Matrix Spike (2101080-MS1)		**Source: 21A0251-20**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	19	5.00	mg/L	12.50	7.6	89	80-120			
Matrix Spike (2101080-MS2)		**Source: 21A0251-21**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	18	5.00	mg/L	12.50	7.0	89	80-120			
Matrix Spike Dup (2101080-MSD1)		**Source: 21A0251-20**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	19	5.00	mg/L	12.50	7.6	90	80-120	0.8	10	
Matrix Spike Dup (2101080-MSD2)		**Source: 21A0251-21**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	18	5.00	mg/L	12.50	7.0	90	80-120	0.5	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21A0251 DATE 1-8-21 PAGE 1 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - SO4	Gr. Filtered
AWC-05	1-4-21	10:40		GW	1	X	
AWC-03	1-4-21	11:14		GW	1	X	
DUP-20210104	1-4-21	12:00		GW	1	X	
FB-20210104	1-4-21	12:00		GW	1	X	X
EQBLK20210104	1-4-21	12:00		GW	1	X	X
AWC-02	1-4-21	13:45		GW	1	X	
BMG-2010-3B	1-5-21	09:17		GW	1	X	
BMG-2010-3M	1-5-21	12:29		GW	1	X	
TM-10 USBP	1-5-21	13:37		GW	1	X	
BMG-2015-2B	1-6-21	08:12		GW	1	X	
BMG-2015-2BL	1-6-21	09:56		GW	1	X	

1. RELINQUISHED BY:
Signature
Printed Name: Jake Allen
Firm: Clear Creek Associates
Date/Time: 1-8-21 1114:20

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 20
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: Carter Black
Firm: TURNER LABORATORIES, INC.
Date/Time: 01-08-21 1420

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☐	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☐	Received Within Hold Time	☐

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21A0251 DATE 1-8-21 PAGE 2 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - SO4
BMO-2615-1B	1-6-21	10:04		GW	1	X
BMO-2615-1BL	1-6-21	10:52		GW	1	X
BMO-2614-4BL	1-6-21	11:53		GW	1	X
BMO-2614-4B	1-6-21	12:34		GW	1	X
COB WL	1-6-21	14:54		GW	1	X
BMO-2614-2BL	1-7-21	08:31		GW	1	X
BMO-2614-2BU	1-7-21	09:11		GW	1	X
BMO-2614-1BU	1-7-21	10:19		GW	1	X
BMO-2614-3BL	1-7-21	12:57		GW	1	X
BMO-2614-3BU	1-7-21	13:42		GW	1	X
WEEN	1-7-21	14:31		GW	1	X

1. RELINQUISHED BY:
Signature
Printed Name: Jake Alday
Firm: Clear Creek Associates
Date/Time: 1-8-21 14:20

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
___ Next day ___ 2 Day ___ 5 Day*
_____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 26
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature: Cooper Blake
Printed Name
TURNER LABORATORIES, INC.
Firm 01-08-21 1420
Date/Time

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21A0251 DATE 1-8-21 PAGE 3 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - 50.4	Unfiltered
SCHWARTZ	1-8-21			GW	1	X	
DUP20210108	1-8-21	12:00		GW	1	X	
FB 20210108	1-8-21	12:00		GW	1	X	X
EQB20210108	1-8-21	12:00		GW	1	X	X
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 1-8-21 / 14:20

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 20
Temperature 1.9
[X] Wet Ice [ ] Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature: Cooper Black
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 01-08-21 / 1420

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	[ ] Yes [ ] No	Custody Seals	[ ]	Preservation Confirmation	[ ]
ADEQ Forms:	[ ] Yes [ ] No	Container Intact	[ ]	Appropriate Head Space	[ ]
Mail ADEQ Forms:	[ ] Yes [ ] No	COC/Labels Agree	[ ]	Received Within Hold Time	[ ]

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

January 15, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21A0251
Order Name: CQB Quarterly

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 26 sample(s) on 01/08/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Date Received: 01/08/2021

Order: CQB Quarterly

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21A0251-01	AWC-05	Ground Water	01/04/2021 1040
21A0251-02	AWC-03	Ground Water	01/04/2021 1114
21A0251-03	DUP20210104	Ground Water	01/04/2021 1200
21A0251-04	FB20210104	Ground Water	01/04/2021 1200
21A0251-05	EQB20210104	Ground Water	01/04/2021 1200
21A0251-06	AWC-02	Ground Water	01/04/2021 1345
21A0251-07	BMO-2010-3B	Ground Water	01/05/2021 0917
21A0251-08	BMO-2010-3M	Ground Water	01/05/2021 1229
21A0251-09	TM-10 USBP	Ground Water	01/05/2021 1337
21A0251-10	BMO-2015-2B	Ground Water	01/06/2021 0812
21A0251-11	BMO-2015-2BL	Ground Water	01/06/2021 0856
21A0251-12	BMO-2015-1B	Ground Water	01/06/2021 1001
21A0251-13	BMO-2015-1BL	Ground Water	01/06/2021 1052
21A0251-14	BMO-2014-4BL	Ground Water	01/06/2021 1153
21A0251-15	BMO-2014-4B	Ground Water	01/06/2021 1239
21A0251-16	COB WL	Ground Water	01/06/2021 1454
21A0251-17	BMO-2014-2BL	Ground Water	01/07/2021 0831
21A0251-18	BMO-2014-2BU	Ground Water	01/07/2021 0911
21A0251-19	BMO-2014-1BU	Ground Water	01/07/2021 1019
21A0251-20	BMO-2014-3BL	Ground Water	01/07/2021 1257
21A0251-21	BMO-2014-3BU	Ground Water	01/07/2021 1342
21A0251-22	Weed	Ground Water	01/07/2021 1431
21A0251-23	Schwartz	Ground Water	01/08/2021 1143
21A0251-24	DUP20210108	Ground Water	01/08/2021 1200
21A0251-25	FB20210108	Ground Water	01/08/2021 1200
21A0251-26	EQB20210108	Ground Water	01/08/2021 1200

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Date Received: 01/08/2021

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-01

Client Sample ID: AWC-05
Collection Date/Time: 01/04/2021 1040
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	18.7	2.12	5.00		mg/L	1	01/08/2021 1528	01/08/2021 2311	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-02

Client Sample ID: AWC-03
Collection Date/Time: 01/04/2021 1114
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	73.6	10.6	25.0		mg/L	5	01/08/2021 1528	01/08/2021 2328	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-03

Client Sample ID: DUP20210104
Collection Date/Time: 01/04/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	18.4	2.12	5.00		mg/L	1	01/08/2021 1528	01/08/2021 2345	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-04

Client Sample ID: FB20210104
Collection Date/Time: 01/04/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/08/2021 1528	01/09/2021 0001	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-05

Client Sample ID: EQB20210104
Collection Date/Time: 01/04/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/08/2021 1528	01/09/2021 0018	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-06

Client Sample ID: AWC-02
Collection Date/Time: 01/04/2021 1345
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.6	2.12	5.00		mg/L	1	01/08/2021 1528	01/11/2021 2345	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-07

Client Sample ID: BMO-2010-3B
Collection Date/Time: 01/05/2021 0917
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	22.9	2.12	5.00		mg/L	1	01/08/2021 1528	01/09/2021 0052	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-08

Client Sample ID: BMO-2010-3M
Collection Date/Time: 01/05/2021 1229
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	9.23	2.12	5.00		mg/L	1	01/08/2021 1528	01/09/2021 0216	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-09

Client Sample ID: TM-10 USBP
Collection Date/Time: 01/05/2021 1337
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	14.5	2.12	5.00		mg/L	1	01/08/2021 1528	01/09/2021 0233	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-10

Client Sample ID: BMO-2015-2B
Collection Date/Time: 01/06/2021 0812
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	289	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0250	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-11

Client Sample ID: BMO-2015-2BL
Collection Date/Time: 01/06/2021 0856
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	336	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0307	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-12

Client Sample ID: BMO-2015-1B
Collection Date/Time: 01/06/2021 1001
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	213	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0324	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-13

Client Sample ID: BMO-2015-1BL
Collection Date/Time: 01/06/2021 1052
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	277	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0341	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-14

Client Sample ID: BMO-2014-4BL
Collection Date/Time: 01/06/2021 1153
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	153	21.2	50.0		mg/L	10	01/08/2021 1528	01/09/2021 0357	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-15

Client Sample ID: BMO-2014-4B
Collection Date/Time: 01/06/2021 1239
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	54.3	10.6	25.0		mg/L	5	01/08/2021 1528	01/09/2021 0414	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-16

Client Sample ID: COB WL
Collection Date/Time: 01/06/2021 1454
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	77.0	10.6	25.0		mg/L	5	01/08/2021 1528	01/09/2021 0431	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-17

Client Sample ID: BMO-2014-2BL
Collection Date/Time: 01/07/2021 0831
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	481	21.2	50.0		mg/L	10	01/11/2021 1500	01/11/2021 1520	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-18

Client Sample ID: BMO-2014-2BU
Collection Date/Time: 01/07/2021 0911
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	58.2	10.6	25.0		mg/L	5	01/11/2021 1500	01/11/2021 1536	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-19

Client Sample ID: BMO-2014-1BU
Collection Date/Time: 01/07/2021 1019
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	185	21.2	50.0		mg/L	10	01/11/2021 1500	01/11/2021 1553	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-20

Client Sample ID: BMO-2014-3BL
Collection Date/Time: 01/07/2021 1257
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.63	2.12	5.00		mg/L	1	01/11/2021 1527	01/11/2021 1610	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-21

Client Sample ID: BMO-2014-3BU
Collection Date/Time: 01/07/2021 1342
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.04	2.12	5.00		mg/L	1	01/11/2021 1527	01/11/2021 1627	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-22

Client Sample ID: Weed
Collection Date/Time: 01/07/2021 1431
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	12.8	2.12	5.00		mg/L	1	01/11/2021 1527	01/11/2021 1644	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-23

Client Sample ID: Schwartz
Collection Date/Time: 01/08/2021 1143
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	14.3	2.12	5.00		mg/L	1	01/11/2021 1527	01/11/2021 1701	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-24

Client Sample ID: DUP20210108
Collection Date/Time: 01/08/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	148	21.2	50.0		mg/L	10	01/11/2021 1527	01/13/2021 0029	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-25

Client Sample ID: FB20210108
Collection Date/Time: 01/08/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/11/2021 1527	01/11/2021 1734	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Lab Sample ID: 21A0251-26

Client Sample ID: EQB20210108
Collection Date/Time: 01/08/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	01/11/2021 1527	01/11/2021 1751	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0251
Date Received: 01/08/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2101062 - E300.0 (2.1)										
Blank (2101062-BLK1)				Prepared & Analyzed: 01/08/2021						
Sulfate	ND	5.00	mg/L							
LCS (2101062-BS1)				Prepared & Analyzed: 01/08/2021						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2101062-BSD1)				Prepared & Analyzed: 01/08/2021						
Sulfate	12	5.00	mg/L	12.50		99	90-110	0.02	10	
Matrix Spike (2101062-MS1)		**Source: 21A0231-01**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	17	5.00	mg/L	12.50	6.1	86	80-120			
Matrix Spike (2101062-MS2)		**Source: 21A0251-04**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	12	5.00	mg/L	12.50	ND	98	80-120			
Matrix Spike Dup (2101062-MSD1)		**Source: 21A0231-01**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	17	5.00	mg/L	12.50	6.1	87	80-120	0.1	10	
Matrix Spike Dup (2101062-MSD2)		**Source: 21A0251-04**		Prepared: 01/08/2021 Analyzed: 01/12/2021						
Sulfate	12	5.00	mg/L	12.50	ND	97	80-120	0.4	10	
Batch 2101080 - E300.0 (2.1)										
Blank (2101080-BLK1)				Prepared & Analyzed: 01/11/2021						
Sulfate	ND	5.00	mg/L							
LCS (2101080-BS1)				Prepared & Analyzed: 01/11/2021						
Sulfate	12	5.00	mg/L	12.50		97	90-110			
LCS Dup (2101080-BSD1)				Prepared & Analyzed: 01/11/2021						
Sulfate	12	5.00	mg/L	12.50		97	90-110	0.4	10	
Matrix Spike (2101080-MS1)		**Source: 21A0251-20**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	19	5.00	mg/L	12.50	7.6	89	80-120			
Matrix Spike (2101080-MS2)		**Source: 21A0251-21**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	18	5.00	mg/L	12.50	7.0	89	80-120			
Matrix Spike Dup (2101080-MSD1)		**Source: 21A0251-20**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	19	5.00	mg/L	12.50	7.6	90	80-120	0.8	10	
Matrix Spike Dup (2101080-MSD2)		**Source: 21A0251-21**		Prepared: 01/11/2021 Analyzed: 01/12/2021						
Sulfate	18	5.00	mg/L	12.50	7.0	90	80-120	0.5	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21A0251 DATE 1-8-21 PAGE 1 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - SO4	Ca, Fe, Hg, Mn, Na
AWC-05	1-4-21	10:40		GW	1	X	
AWC-03	1-4-21	11:14		GW	1	X	
DUP20210104	1-4-21	12:00		GW	1	X	
FB20210104	1-4-21	12:00		GW	1	X	X
EQBL20210104	1-4-21	12:00		GW	1	X	X
AWC-02	1-4-21	13:45		GW	1	X	
BMO-2010-3B	1-5-21	09:17		GW	1	X	
BMO-2010-3M	1-5-21	12:29		GW	1	X	
TM-10 USBR	1-5-21	13:37		GW	1	X	
BMO-2015-2B	1-6-21	08:12		GW	1	X	
BMO-2015-2BL	1-6-21	09:56		GW	1	X	

1. RELINQUISHED BY:
Signature
Printed Name: Jake Hall
Firm: Clear Creek Associates
Date/Time: 1-8-21 / 14:20

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
___ Next day ___ 2 Day ___ 5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ___ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 20
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: Carter Black
Firm: TURNER LABORATORIES, INC.
Date/Time: 01-08-21 / 1420

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☑	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21A0251 DATE 1-8-21 PAGE 2 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - SO4
BMO-2615-1B	1-6-21	10:04		GW	1	X
BMO-2615-1BL	1-6-21	10:52		GW	1	X
BMO-2614-4BL	1-6-21	11:53		GW	1	X
BMO-2614-4B	1-6-21	12:34		GW	1	X
COB WL	1-6-21	14:54		GW	1	X
BMO-2614-2BL	1-7-21	08:31		GW	1	X
BMO-2614-2BU	1-7-21	09:11		GW	1	X
BMO-2614-1BU	1-7-21	10:19		GW	1	X
BMO-2614-3BL	1-7-21	12:57		GW	1	X
BMO-2614-3BU	1-7-21	13:42		GW	1	X
WEED	1-7-21	14:31		GW	1	X

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 1-8-21 14:20

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
_____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 26
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm 01-08-21 1420
Date/Time

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21A0251 DATE 1-8-21 PAGE 3 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - 504	Unfiltered
SCHWARTZ	1-8-21			GW	1	X	
DUP20210108	1-8-21	12:00		GW	1	X	
FB 20210108	1-8-21	12:00		GW	1	X	X
EQB20210108	1-8-21	12:00		GW	1	X	X
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 1-8-21 / 14:20

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 20
Temperature 1.9
[X] Wet Ice [ ] Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature: Cooper Black
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 01-08-21 / 1420

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	[ ] Yes	[ ] No	Custody Seals	[ ]	Preservation Confirmation	[ ]
ADEQ Forms:	[ ] Yes	[ ] No	Container Intact	[ ]	Appropriate Head Space	[ ]
Mail ADEQ Forms:	[ ] Yes	[ ] No	COC/Labels Agree	[ ]	Received Within Hold Time	[ ]

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

January 20, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21A0365
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 10 sample(s) on 01/13/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Date Received: 01/13/2021

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21A0365-01	PANAGAKOS	Ground Water	01/11/2021 1247
21A0365-02	DODSON	Ground Water	01/11/2021 1403
21A0365-03	NWC-04	Ground Water	01/12/2021 0737
21A0365-04	NWC-02	Ground Water	01/12/2021 0809
21A0365-05	NWC-06	Ground Water	01/12/2021 0827
21A0365-06	COB MW-2	Ground Water	01/12/2021 1027
21A0365-07	Rogers E	Ground Water	01/12/2021 1203
21A0365-08	KEEFER	Ground Water	01/12/2021 1311
21A0365-09	RUIZ 146	Ground Water	01/12/2021 1415
21A0365-10	POWER 639	Ground Water	01/13/2021 1243

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Date Received: 01/13/2021

Case Narrative

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Lab Sample ID: 21A0365-01

Client Sample ID: PANAGAKOS
Collection Date/Time: 01/11/2021 1247
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	227	21.2	50.0		mg/L	10	01/14/2021 1210	01/15/2021 1908	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Lab Sample ID: 21A0365-02

Client Sample ID: DODSON
Collection Date/Time: 01/11/2021 1403
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	48.7	2.12	5.00		mg/L	1	01/14/2021 1230	01/14/2021 1234	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Lab Sample ID: 21A0365-03

Client Sample ID: NWC-04
Collection Date/Time: 01/12/2021 0737
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	198	21.2	50.0		mg/L	10	01/14/2021 1230	01/15/2021 1925	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Lab Sample ID: 21A0365-04

Client Sample ID: NWC-02
Collection Date/Time: 01/12/2021 0809
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.55	2.12	5.00		mg/L	1	01/14/2021 1230	01/14/2021 1308	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Lab Sample ID: 21A0365-05

Client Sample ID: NWC-06
Collection Date/Time: 01/12/2021 0827
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.83	2.12	5.00		mg/L	1	01/14/2021 1230	01/14/2021 1325	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	COB MW-2
Project:	CQB	**Collection Date/Time:**	01/12/2021 1027
Work Order:	21A0365	**Matrix:**	Ground Water
Lab Sample ID:	21A0365-06	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	23.6	2.12	5.00		mg/L	1	01/14/2021 1230	01/14/2021 1342	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Lab Sample ID: 21A0365-07

Client Sample ID: Rogers E
Collection Date/Time: 01/12/2021 1203
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	6.79	2.12	5.00		mg/L	1	01/14/2021 1230	01/14/2021 1358	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	KEEFER
Project:	CQB	**Collection Date/Time:**	01/12/2021 1311
Work Order:	21A0365	**Matrix:**	Ground Water
Lab Sample ID:	21A0365-08	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.04	2.12	5.00		mg/L	1	01/14/2021 1230	01/14/2021 1415	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Lab Sample ID: 21A0365-09

Client Sample ID: RUIZ 146
Collection Date/Time: 01/12/2021 1415
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	103	21.2	50.0		mg/L	10	01/14/2021 1230	01/15/2021 2049	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	POWER 639
Project:	CQB	**Collection Date/Time:**	01/13/2021 1243
Work Order:	21A0365	**Matrix:**	Ground Water
Lab Sample ID:	21A0365-10	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	218	21.2	50.0		mg/L	10	01/14/2021 1230	01/15/2021 2106	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21A0365
Date Received: 01/13/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2101128 - E300.0 (2.1)										
Blank (2101128-BLK1)				Prepared & Analyzed: 01/14/2021						
Sulfate	ND	5.00	mg/L							
LCS (2101128-BS1)				Prepared & Analyzed: 01/14/2021						
Sulfate	13	5.00	mg/L	12.50		101	90-110			
LCS Dup (2101128-BSD1)				Prepared & Analyzed: 01/14/2021						
Sulfate	13	5.00	mg/L	12.50		101	90-110	0.2	10	
Matrix Spike (2101128-MS1)		**Source: 21A0365-04**		Prepared: 01/14/2021 Analyzed: 01/16/2021						
Sulfate	72	25.0	mg/L	62.50	ND	115	80-120			
Matrix Spike (2101128-MS2)		**Source: 21A0365-05**		Prepared: 01/14/2021 Analyzed: 01/16/2021						
Sulfate	73	25.0	mg/L	62.50	ND	116	80-120			
Matrix Spike Dup (2101128-MSD1)		**Source: 21A0365-04**		Prepared: 01/14/2021 Analyzed: 01/16/2021						
Sulfate	72	25.0	mg/L	62.50	ND	116	80-120	1	10	
Matrix Spike Dup (2101128-MSD2)		**Source: 21A0365-05**		Prepared: 01/14/2021 Analyzed: 01/16/2021						
Sulfate	73	25.0	mg/L	62.50	ND	116	80-120	0.2	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21A0365 DATE 1/13/21 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC18.10080.00
CONTACT NAME : Chris Sherman
COMPANY NAME : Freeport McMoRan CQB
ADDRESS : 36 Highway 92
CITY Bisbee STATE AZ ZIP CODE 85603
PHONE 520-508-7063 FAX 520-432-1395
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - 50+	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX
PANAGAKOS	1-11-21	12:47		GW	1	X	
DODSON	1-11-21	14:03		GW	1	X	
NWC-04	1-12-21	07:37		GW	1	X	
NWC-02	1-12-21	08:07		GW	1	X	
NWC-06	1-12-21	08:27		GW	1	X	
COB MW-2	1-12-21	10:27		GW	1	X	
ROGERS E	1-12-21	12:03		GW	1	X	
KEEFER	1-12-21	13:11		GW	1	X	
RUIZ 146	1-12-21	14:15		GW	1	X	
POWER 639	1-13-21	12:43		GW	1	X	
				GW			

1. RELINQUISHED BY:
Signature
Printed Name: Jake Alden
Firm: Clear Creek Associates
Date/Time: 1-13-21 15:50

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 1/13/21 1550

TURNAROUND REQUIREMENTS:
X Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ___ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 10
Temperature 2.0
X Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☒
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☒	Appropriate Head Space ☒
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☒	Received Within Hold Time ☒

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

February 17, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21B0305
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 4 sample(s) on 02/09/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21B0305
Date Received: 02/09/2021

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21B0305-01	AWC-04	Ground Water	02/09/2021 1015
21B0305-02	DUP20210209	Ground Water	02/09/2021 1200
21B0305-03	FB20210209	Ground Water	02/09/2021 1200
21B0305-04	EQB20210209	Ground Water	02/09/2021 1200

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21B0305
Date Received: 02/09/2021

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

M2 Matrix spike recovery was low; the associated LCS/LCSD was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 02/17/2021

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21B0305
Lab Sample ID: 21B0305-01

Client Sample ID: AWC-04
Collection Date/Time: 02/09/2021 1015
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	23.9	2.12	5.00		mg/L	1	02/10/2021 1200	02/12/2021 1233	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21B0305
Lab Sample ID: 21B0305-02

Client Sample ID: DUP20210209
Collection Date/Time: 02/09/2021 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	23.3	2.12	5.00		mg/L	1	02/10/2021 1200	02/12/2021 1249	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21B0305
Lab Sample ID: 21B0305-03

Client Sample ID: FB20210209
Collection Date/Time: 02/09/2021 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	02/10/2021 1200	02/12/2021 1306	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21B0305
Lab Sample ID: 21B0305-04

Client Sample ID: EQB20210209
Collection Date/Time: 02/09/2021 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	02/10/2021 1200	02/12/2021 1323	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21B0305
Date Received: 02/09/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2102152 - E300.0 (2.1)										
Blank (2102152-BLK1)				Prepared & Analyzed: 02/10/2021						
Sulfate	ND	5.00	mg/L							
LCS (2102152-BS1)				Prepared & Analyzed: 02/10/2021						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2102152-BSD1)				Prepared & Analyzed: 02/10/2021						
Sulfate	12	5.00	mg/L	12.50		99	90-110	0.1	10	
Matrix Spike (2102152-MS1)		**Source: 21B0305-03**		Prepared: 02/10/2021 Analyzed: 02/12/2021						
Sulfate	13	5.00	mg/L	12.50	14	NR	80-120			M2
Matrix Spike (2102152-MS2)		**Source: 21B0305-04**		Prepared: 02/10/2021 Analyzed: 02/12/2021						
Sulfate	13	5.00	mg/L	12.50	14	NR	80-120			
Matrix Spike (2102152-MS3)		**Source: 21B0328-01**		Prepared: 02/10/2021 Analyzed: 02/12/2021						
Sulfate	21	5.00	mg/L	12.50	10	90	80-120			
Matrix Spike Dup (2102152-MSD1)		**Source: 21B0305-03**		Prepared: 02/10/2021 Analyzed: 02/12/2021						
Sulfate	13	5.00	mg/L	12.50	14	NR	80-120		10	
Matrix Spike Dup (2102152-MSD2)		**Source: 21B0305-04**		Prepared: 02/10/2021 Analyzed: 02/12/2021						
Sulfate	13	5.00	mg/L	12.50	14	NR	80-120		10	M2
Matrix Spike Dup (2102152-MSD3)		**Source: 21B0328-01**		Prepared: 02/10/2021 Analyzed: 02/12/2021						
Sulfate	21	5.00	mg/L	12.50	10	91	80-120	0.4	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2130305 DATE 2-9-21 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0
AWC-854	2-9-21	10:15		GW	1	X
DUP20210209	2-9-21	12:00		GW	1	X
FB20210209	2-9-21	12:00		GW	1	X
EQB20210209	2-9-21	12:00		GW	1	X
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
Printed Name: Dale Alden
Firm: Clear Creek Associates
Date/Time: 2-9-21 / 14:05

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
X Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ___ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 4
Temperature 2.1 °C
X Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Leonard Mudy
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
2/9/21 14:00
Date/Time

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	X
ADEQ Forms:	☐ Yes ☐ No	Container Intact	X	Appropriate Head Space	X
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	X	Received Within Hold Time	X

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

March 18, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21C0329
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 2 sample(s) on 03/09/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21C0329
Date Received: 03/09/2021

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21C0329-01	BMO-2014-1BL	Ground Water	03/09/2021 1141
21C0329-02	BMO-2015-1BL	Ground Water	03/09/2021 1252

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21C0329
Date Received: 03/09/2021

Case Narrative

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21C0329
Lab Sample ID: 21C0329-01

Client Sample ID: BMO-2014-1BL
Collection Date/Time: 03/09/2021 1141
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	160	21	50		mg/L	10	03/10/2021 1000	03/12/2021 0058	JG

Turner Laboratories, Inc.

Date: 03/18/2021

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2015-1BL
Project:	CQB	**Collection Date/Time:**	03/09/2021 1252
Work Order:	21C0329	**Matrix:**	Ground Water
Lab Sample ID:	21C0329-02	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	260	21	50		mg/L	10	03/10/2021 1000	03/12/2021 0117	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21C0329
Date Received: 03/09/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2103129 - E300.0 (2.1)										
Blank (2103129-BLK1)				Prepared & Analyzed: 03/10/2021						
Sulfate	ND	5.0	mg/L							
LCS (2103129-BS1)				Prepared & Analyzed: 03/10/2021						
Sulfate	12	5.0	mg/L	12.50		98	90-110			
LCS Dup (2103129-BSD1)				Prepared & Analyzed: 03/10/2021						
Sulfate	12	5.0	mg/L	12.50		98	90-110	0.6	10	
Matrix Spike (2103129-MS1)		**Source: 21C0346-01**		Prepared: 03/10/2021 Analyzed: 03/12/2021						
Sulfate	31	5.0	mg/L	12.50	20	91	80-120			
Matrix Spike Dup (2103129-MSD1)		**Source: 21C0346-01**		Prepared: 03/10/2021 Analyzed: 03/12/2021						
Sulfate	31	5.0	mg/L	12.50	20	92	80-120	0.2	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2160329 DATE 3/9/21 PAGE 1 OF 1

PROJECT NAME CQB # CC18.1080.00
CONTACT NAME Chris Sherman
COMPANY NAME Freeport McMoRan - CQB
ADDRESS 36 HWY 92 Bisbee, AZ
ZIP 85603 PHONE 520-508-7063 EMAIL
SAMPLER'S SIGNATURE

NUMBER OF CONTAINERS

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	Base Neutrals 625/8270 / Acids	Volatile Organics 624 / 524.2 / 8260	THMS / HAA5	Chloride / Sulfate / Resistivity	NO3 / NO2 / TKN	TPH / 1664 / Oil & Grease	VOA / TCLP Analysis / Semi-VOA / Pest.	TCLP / Dissolved / Metals / Total / RCRA8	Total / Cyanide / Amen. / WAD	SDWA-INORGANICS PRIMARY / SECONDARY	MPN / Coliform / P/A	pH / Fecal / Cl2 / Cl2	COD / TSS / Turb / BOD	TDS SO4			
BMO-2024-1BL	3-9-21	11:41		GW															✓			
BMO-2025-1BL	3-9-21	12:52		GW															✓			

1. RELINQUISHED BY:
Signature
William R. Tinnell
Printed Name
CCA
Firm
3-9-21 16:45
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx. 10 days)*
____ Next Day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. #
Bill to:

SAMPLE RECEIPT:
Total Containers 2
Temperature 8.6
☒ Wet Ice
☐ Ambient
☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
3/9/21 1645
Date/Time

* LEGEND SAMPLE MATRIX
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

Compliance Analysis: ☐ Yes ☐ No		Custody Seals ☐	Preservation Confirmation ☒
ADEQ Forms: ☐ Yes ☐ No		Container Intact ☒	Appropriate Head Space ☒
Mail ADEQ Forms: ☐ Yes ☐ No		COC / Labels Agree ☒	Received Within Hold Time ☒

SPECIAL INSTRUCTIONS/COMMENTS:

One Government Gulch - PO Box 929
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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1B0195**
Bisbee, AZ 85603	Reported: 18-Feb-21 17:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
BM0 2012-IM	X1B0195-01	Ground Water	02-Feb-21 08:40	CLS	10-Feb-2021	
BM0 2008-6M	X1B0195-02	Ground Water	02-Feb-21 10:40	CLS	10-Feb-2021	
BM0 2008-6B	X1B0195-03	Ground Water	02-Feb-21 11:45	CLS	10-Feb-2021	
BM0 2008-5M	X1B0195-04	Ground Water	02-Feb-21 14:25	CLS	10-Feb-2021	
BM0 2008-5B	X1B0195-05	Ground Water	02-Feb-21 15:10	CLS	10-Feb-2021	
BM0 2008-1G	X1B0195-06	Ground Water	03-Feb-21 08:30	CLS	10-Feb-2021	
BM0 2008-3B	X1B0195-07	Ground Water	03-Feb-21 09:35	CLS	10-Feb-2021	
BM0 2008-11G	X1B0195-08	Ground Water	03-Feb-21 13:30	CLS	10-Feb-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1B0195**
Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2012-IM**
SVL Sample ID: **X1B0195-01 (Ground Water)**

Sampled: 02-Feb-21 08:40
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	213	mg/L	3.00	1.80	10	X107175	RS	02/11/21 14:06	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Herman J. Haring
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1B0195**
Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2008-6M**
SVL Sample ID: **X1B0195-02 (Ground Water)**

Sampled: 02-Feb-21 10:40
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	199	mg/L	3.00	1.80	10	X107175	RS	02/11/21 18:34	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Herman J. Haring
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1B0195**
Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2008-6B**
SVL Sample ID: **X1B0195-03 (Ground Water)**

Sampled: 02-Feb-21 11:45
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	< 15.0	mg/L	15.0	9.00	50	X107175	RS	02/11/21 18:52	D1

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Herman J. Haring
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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1B0195**
Bisbee, AZ 85603	Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2008-5M**
SVL Sample ID: **X1B0195-04 (Ground Water)**

Sampled: 02-Feb-21 14:25
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	164	mg/L	3.00	1.80	10	X107175	RS	02/11/21 19:09	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Herman J. Haring
Project Manager

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1B0195**
Bisbee, AZ 85603	Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2008-5B**
SVL Sample ID: **X1B0195-05 (Ground Water)**

Sampled: 02-Feb-21 15:10
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	246	mg/L	3.00	1.80	10	X107175	RS	02/12/21 00:49	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Herman J. Haring
Project Manager

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1B0195**
Bisbee, AZ 85603	Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2008-1G**
SVL Sample ID: **X1B0195-06 (Ground Water)**

Sampled: 03-Feb-21 08:30
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	92.6	mg/L	3.00	1.80	10	X107175	RS	02/12/21 01:42	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Herman J. Haring
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1B0195**
Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2008-3B**
SVL Sample ID: **X1B0195-07 (Ground Water)**

Sampled: 03-Feb-21 09:35
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	130	mg/L	3.00	1.80	10	X107175	RS	02/12/21 02:00	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Herman J. Haring
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1B0195**
Reported: 18-Feb-21 17:58

Client Sample ID: **BM0 2008-11G**
SVL Sample ID: **X1B0195-08 (Ground Water)**

Sampled: 03-Feb-21 13:30
Received: 10-Feb-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	12.5	mg/L	0.30	0.18		X107175	RS	02/11/21 17:04	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Herman J. Haring
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1B0195**
Reported: 18-Feb-21 17:58

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X107175	11-Feb-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.4	10.0	104	90 - 110	X107175	11-Feb-21	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	22.4	12.5	10.0	98.9	90 - 110	X107175 - X1B0195-08	11-Feb-21	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	22.5	22.4	10.0	0.4	20	99.8	X107175 - X1B0195-08	

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1B0195**
Bisbee, AZ 85603	Reported: 18-Feb-21 17:58

Notes and Definitions

D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1C0343**
Bisbee, AZ 85603	Reported: 22-Mar-21 14:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
TM-7	X1C0343-01	Water	17-Mar-21 10:58	CLS	18-Mar-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1C0343**
Reported: 22-Mar-21 14:12

Client Sample ID: **TM-7**
SVL Sample ID: **X1C0343-01 (Water)**

Sampled: 17-Mar-21 10:58
Received: 18-Mar-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	109	mg/L	3.00	1.80	10	X112197	RS	03/19/21 13:30	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Dave Tryon
Project Manager

One Government Gulch - PO Box 929
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1C0343**
Reported: 22-Mar-21 14:12

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X112197	19-Mar-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.2	10.0	102	90 - 110	X112197	19-Mar-21	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	119	109	10.0	99.9	90 - 110	X112197 - X1C0343-01	19-Mar-21	D2

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	119	119	10.0	0.2	20	97.2	X112197 - X1C0343-01	D2

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1C0343**
Bisbee, AZ 85603	Reported: 22-Mar-21 14:12

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

April 09, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21D0018
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 1 sample(s) on 04/01/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21D0018
Date Received: 04/01/2021

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21D0018-01	NWC-04	Ground Water	04/01/2021 0903

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21D0018
Date Received: 04/01/2021

Case Narrative

M2 Matrix spike recovery was low; the associated LCS/LCSD was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 04/09/2021

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21D0018
Lab Sample ID: 21D0018-01

Client Sample ID: NWC-04
Collection Date/Time: 04/01/2021 0903
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	194	21.2	50.0		mg/L	10	04/02/2021 1230	04/06/2021 0101	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21D0018
Date Received: 04/01/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2104023 - E300.0 (2.1)										
Blank (2104023-BLK1)				Prepared & Analyzed: 04/02/2021						
Sulfate	ND	5.00	mg/L							
LCS (2104023-BS1)				Prepared & Analyzed: 04/02/2021						
Sulfate	12	5.00	mg/L	12.50		94	90-110			
LCS Dup (2104023-BSD1)				Prepared & Analyzed: 04/02/2021						
Sulfate	12	5.00	mg/L	12.50		94	90-110	0.1	10	
Matrix Spike (2104023-MS1)		**Source: 21D0030-01**		Prepared: 04/02/2021 Analyzed: 04/03/2021						
Sulfate	230	25.0	mg/L	62.50	200	38	80-120			M2
Matrix Spike (2104023-MS2)		**Source: 21D0035-05**		Prepared: 04/02/2021 Analyzed: 04/03/2021						
Sulfate	12	5.00	mg/L	12.50	ND	96	80-120			
Matrix Spike Dup (2104023-MSD1)		**Source: 21D0030-01**		Prepared: 04/02/2021 Analyzed: 04/03/2021						
Sulfate	230	25.0	mg/L	62.50	200	36	80-120	0.5	10	M2
Matrix Spike Dup (2104023-MSD2)		**Source: 21D0035-05**		Prepared: 04/02/2021 Analyzed: 04/03/2021						
Sulfate	12	5.00	mg/L	12.50	ND	96	80-120	0.4	10	

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21D0018 DATE 4-1-21 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC18.10080.00
CONTACT NAME : Chris Sherman
COMPANY NAME : Freeport McMoRan CQB
ADDRESS : 36 Highway 92
CITY Bisbee STATE AZ ZIP CODE 85603
PHONE 520-508-7063 FAX 520-432-1395
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - SO4
NWC-04	4-1	9:03		GW	1	X
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature Jake Alden
Printed Name Clear Creek Associates
Firm
Date/Time 4-1-21 11:15

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name TURNER LABORATORIES, INC.
Firm
Date/Time 4/1/21 11:15

TURNAROUND REQUIREMENTS:
X Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ___ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 1
Temperature 2.6
X Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

August 16, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21G0626
Order Name: CQB Quarterly
#CC18.10080.00

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 22 sample(s) on 07/23/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Date Received: 07/23/2021

Order: CQB Quarterly #CC18.10080.00

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21G0626-01	POWER 639	Ground Water	07/19/2021 1417
21G0626-02	AWC-05	Ground Water	07/20/2021 0905
21G0626-03	AWC-03	Ground Water	07/20/2021 0939
21G0626-04	AWC-04	Ground Water	07/20/2021 1001
21G0626-05	AWC-02	Ground Water	07/20/2021 1223
21G0626-06	SCHWARTZ	Ground Water	07/20/2021 1425
21G0626-07	POOL	Ground Water	07/20/2021 1458
21G0626-08	COB MW-3	Ground Water	07/21/2021 0859
21G0626-09	COB MW-2	Ground Water	07/21/2021 0939
21G0626-10	ECHAVE	Ground Water	07/21/2021 1017
21G0626-11	COB MW-1B	Ground Water	07/21/2021 1223
21G0626-12	RUIZ 146	Ground Water	07/21/2021 1508
21G0626-13	WEED	Ground Water	07/21/2021 1545
21G0626-14	DUP20210721	Drinking Water	07/21/2021 1200
21G0626-15	FB20210721	Ground Water	07/21/2021 1200
21G0626-16	EQB20210721	Ground Water	07/21/2021 1200
21G0626-17	NWC-06	Ground Water	07/22/2021 0823
21G0626-18	NWC-02	Ground Water	07/22/2021 0857
21G0626-19	NWC-04	Ground Water	07/22/2021 0933
21G0626-20	ROGERS 596	Ground Water	07/22/2021 1204
21G0626-21	BMO-2008-4B	Ground Water	07/22/2021 1455
21G0626-22	PIONKE 517	Ground Water	07/23/2021 1133

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Date Received: 07/23/2021

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

M2 Matrix spike recovery was low; the associated LCS/LCSD was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-01

Client Sample ID: POWER 639
Collection Date/Time: 07/19/2021 1417
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	185	21.2	50.0		mg/L	10	07/28/2021 1645	07/31/2021 2020	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-02

Client Sample ID: AWC-05
Collection Date/Time: 07/20/2021 0905
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	23.3	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 1729	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-03

Client Sample ID: AWC-03
Collection Date/Time: 07/20/2021 0939
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	87.2	21.2	50.0		mg/L	10	07/28/2021 1645	07/31/2021 2039	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-04

Client Sample ID: AWC-04
Collection Date/Time: 07/20/2021 1001
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	25.8	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 1807	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-05

Client Sample ID: AWC-02
Collection Date/Time: 07/20/2021 1223
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	18.6	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 1826	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	SCHWARTZ
Project:	CQB	**Collection Date/Time:**	07/20/2021 1425
Work Order:	21G0626	**Matrix:**	Ground Water
Lab Sample ID:	21G0626-06	**Order Name:**	CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	156	21.2	50.0		mg/L	10	07/28/2021 1645	07/31/2021 2058	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-07

Client Sample ID: POOL
Collection Date/Time: 07/20/2021 1458
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	109	21.2	50.0		mg/L	10	07/28/2021 1645	07/31/2021 2117	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-08

Client Sample ID: COB MW-3
Collection Date/Time: 07/21/2021 0859
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	95.8	21.2	50.0		mg/L	10	07/28/2021 1645	07/31/2021 2136	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-09

Client Sample ID: COB MW-2
Collection Date/Time: 07/21/2021 0939
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	26.4	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 1941	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	ECHAVE
Project:	CQB	**Collection Date/Time:**	07/21/2021 1017
Work Order:	21G0626	**Matrix:**	Ground Water
Lab Sample ID:	21G0626-10	**Order Name:**	CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	22.7	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 2000	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-11

Client Sample ID: COB MW-1B
Collection Date/Time: 07/21/2021 1223
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	918	212	500		mg/L	100	07/28/2021 1645	07/31/2021 2155	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-12

Client Sample ID: RUIZ 146
Collection Date/Time: 07/21/2021 1508
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	102	21.2	50.0		mg/L	10	07/28/2021 1645	08/03/2021 0543	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-13

Client Sample ID: WEED
Collection Date/Time: 07/21/2021 1545
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	14.7	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 2212	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-14

Client Sample ID: DUP20210721
Collection Date/Time: 07/21/2021 1200
Matrix: Drinking Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	844	212	500		mg/L	100	07/28/2021 1645	08/03/2021 0601	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-15

Client Sample ID: FB20210721
Collection Date/Time: 07/21/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	07/28/2021 1645	07/28/2021 2249	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-16

Client Sample ID: EQB20210721
Collection Date/Time: 07/21/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	07/28/2021 1645	07/28/2021 2308	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-17

Client Sample ID: NWC-06
Collection Date/Time: 07/22/2021 0823
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	9.46	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 2327	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-18

Client Sample ID: NWC-02
Collection Date/Time: 07/22/2021 0857
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	9.64	2.12	5.00		mg/L	1	07/28/2021 1645	07/28/2021 2346	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-19

Client Sample ID: NWC-04
Collection Date/Time: 07/22/2021 0933
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	187	21.2	50.0		mg/L	10	07/28/2021 1645	08/03/2021 0619	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-20

Client Sample ID: ROGERS 596
Collection Date/Time: 07/22/2021 1204
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	651	212	500		mg/L	100	07/28/2021 1645	08/03/2021 1603	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-21

Client Sample ID: BMO-2008-4B
Collection Date/Time: 07/22/2021 1455
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	12.0	2.12	5.00		mg/L	1	07/28/2021 1645	07/29/2021 0158	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Lab Sample ID: 21G0626-22

Client Sample ID: PIONKE 517
Collection Date/Time: 07/23/2021 1133
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	14.7	2.12	5.00		mg/L	1	07/28/2021 1645	07/29/2021 0217	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0626
Date Received: 07/23/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2107333 - E300.0 (2.1)										
Blank (2107333-BLK1)				Prepared & Analyzed: 07/28/2021						
Sulfate	ND	5.00	mg/L							
LCS (2107333-BS1)				Prepared & Analyzed: 07/28/2021						
Sulfate	13	5.00	mg/L	12.50		108	90-110			
LCS Dup (2107333-BSD1)				Prepared & Analyzed: 07/28/2021						
Sulfate	14	5.00	mg/L	12.50		108	90-110	0.5	10	
Matrix Spike (2107333-MS1)		**Source: 21G0626-13**		Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	24	5.00	mg/L	12.50	15	77	80-120			M2
Matrix Spike (2107333-MS2)		**Source: 21G0626-15**		Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	106	80-120			
Matrix Spike (2107333-MS3)		**Source: 21G0626-16**		Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	106	80-120			
Matrix Spike Dup (2107333-MSD1)		**Source: 21G0626-13**		Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	24	5.00	mg/L	12.50	15	76	80-120	0.3	10	M2
Matrix Spike Dup (2107333-MSD2)		**Source: 21G0626-15**		Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	106	80-120	0.6	10	
Matrix Spike Dup (2107333-MSD3)		**Source: 21G0626-16**		Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	107	80-120	0.5	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2160626 DATE 7/23/21 PAGE 1 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX: SO_4 - 300.0
POWER 639	7-19-21	14:17		GW	1	X
AWC-05	7-20-21	09:05		GW	1	X
AWC-03	7-20-21	09:39		GW	1	X
AWC-04	7-20-21	10:01		GW	1	X
AWC-02	7-20-21	12:23		GW	1	X
SCHWARTZ	7-20-21	14:25		GW	1	X
POOL	7-20-21	14:58		GW	1	X
COB MW-3	7-21-21	08:59		GW	1	X
COB MW-2	7-21-21	09:39		GW	1	X
ECHAVE	7-21-21	10:17		GW	1	X
COB MW-1B	7-21-21	12:23		GW	1	X

1. RELINQUISHED BY:
Signature
Jake Alden
Printed Name
Clear Creek Associates
Firm
7-23-21 13:40
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 22
Temperature 3.1
☑ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Leonard Murphy
Printed Name
TURNER LABORATORIES, INC.
Firm
7/23/21 1340
Date/Time

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☐	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☐	Received Within Hold Time	☐

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2160626 DATE 7/23/21 PAGE 2 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX: SO4 - 300.0
RUIZ 146	7-21-21	15:05		GW	1	X
WEED	7-21-21	15:45		GW	1	X
DUP20210721	7-21-21	12:00		GW	1	X
FB20210721	7-21-21	12:00		GW	1	X
EQB20210721	7-21-21	12:00		GW	1	X
NWC-06	7-22-21	08:23		GW	1	X
NWC-02	7-22-21	08:57		GW	1	X
NWC-04	7-22-21	09:33		GW	1	X
ROGERS 596	7-22-21	12:04		GW	1	X
BMO-2003-46	7-22-21	14:55		GW	1	X
PIONKE 517	7-23-21	11:33		GW	1	X

1. RELINQUISHED BY:
Signature
Jake Hilse
Printed Name
Clear Creek Associates
Firm
7-23-21 / 13:40
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 22
Temperature 3.1
☑ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
7/23/21 1340
Date/Time

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☑	
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☑	Appropriate Head Space ☑	
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☑	Received Within Hold Time ☑	

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

August 09, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21G0630
Order Name: CQB Quarterly
#CC18.10080.00

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 15 sample(s) on 07/23/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Date Received: 07/23/2021

Order: CQB Quarterly #CC18.10080.00

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21G0630-01	NESS	Ground Water	07/19/2021 1600
21G0630-02	BIMA	Ground Water	07/20/2021 1008
21G0630-03	NOTEMAN	Ground Water	07/20/2021 1337
21G0630-04	PALMER	Ground Water	07/20/2021 1519
21G0630-05	BANKS 986	Ground Water	07/20/2021 1835
21G0630-06	DODSON	Ground Water	07/21/2021 1129
21G0630-07	GARNER 635	Ground Water	07/21/2021 1531
21G0630-08	FRANCO 383	Ground Water	07/22/2021 1142
21G0630-09	PANAGAKOS	Ground Water	07/22/2021 1339
21G0630-10	PARRA	Ground Water	07/22/2021 1815
21G0630-11	RAY	Ground Water	07/23/2021 0945
21G0630-12	DUP072321	Ground Water	07/23/2021 1200
21G0630-13	Field Blank	Ground Water	07/23/2021 0924
21G0630-14	EB072321	Ground Water	07/23/2021 0933
21G0630-15	EAST	Ground Water	07/23/2021 1113

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Date Received: 07/23/2021

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

M2 Matrix spike recovery was low; the associated LCS/LCSD was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-01

Client Sample ID: NESS
Collection Date/Time: 07/19/2021 1600
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	47.9	10.6	25.0		mg/L	5	07/28/2021 1645	08/03/2021 1621	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-02

Client Sample ID: BIMA
Collection Date/Time: 07/20/2021 1008
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	200	21.2	50.0		mg/L	10	07/28/2021 1645	08/03/2021 1639	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-03

Client Sample ID: NOTEMAN
Collection Date/Time: 07/20/2021 1337
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	211	21.2	50.0		mg/L	10	07/28/2021 1645	08/03/2021 1657	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-04

Client Sample ID: PALMER
Collection Date/Time: 07/20/2021 1519
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.8	2.12	5.00		mg/L	1	07/29/2021 1644	08/05/2021 2133	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-05

Client Sample ID: BANKS 986
Collection Date/Time: 07/20/2021 1835
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	69.6	10.6	25.0		mg/L	5	07/29/2021 1644	08/05/2021 2151	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-06

Client Sample ID: DODSON
Collection Date/Time: 07/21/2021 1129
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	48.4	4.24	10.0		mg/L	2	07/29/2021 1644	08/05/2021 2321	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-07

Client Sample ID: GARNER 635
Collection Date/Time: 07/21/2021 1531
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	38.0	2.12	5.00		mg/L	1	07/29/2021 1644	08/05/2021 2339	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-08

Client Sample ID: FRANCO 383
Collection Date/Time: 07/22/2021 1142
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	392	106	250		mg/L	50	07/29/2021 1644	08/05/2021 2357	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-09

Client Sample ID: PANAGAKOS
Collection Date/Time: 07/22/2021 1339
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	185	21.2	50.0		mg/L	10	07/29/2021 1644	08/06/2021 0016	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-10

Client Sample ID: PARRA
Collection Date/Time: 07/22/2021 1815
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	360	42.4	100		mg/L	20	07/29/2021 1644	08/06/2021 0034	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-11

Client Sample ID: RAY
Collection Date/Time: 07/23/2021 0945
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	209	21.2	50.0		mg/L	10	07/29/2021 1644	08/06/2021 0052	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-12

Client Sample ID: DUP072321
Collection Date/Time: 07/23/2021 1200
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	209	21.2	50.0		mg/L	10	07/29/2021 1644	08/06/2021 0110	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-13

Client Sample ID: Field Blank
Collection Date/Time: 07/23/2021 0924
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	07/29/2021 1644	07/30/2021 0152	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-14

Client Sample ID: EB072321
Collection Date/Time: 07/23/2021 0933
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	07/29/2021 1644	07/30/2021 0211	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Lab Sample ID: 21G0630-15

Client Sample ID: EAST
Collection Date/Time: 07/23/2021 1113
Matrix: Ground Water
Order Name: CQB Quarterly #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	12.7	2.12	5.00		mg/L	1	07/29/2021 1644	07/30/2021 0229	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0630
Date Received: 07/23/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2107333 - E300.0 (2.1)										
Blank (2107333-BLK1)				Prepared & Analyzed: 07/28/2021						
Sulfate	ND	5.00	mg/L							
LCS (2107333-BS1)				Prepared & Analyzed: 07/28/2021						
Sulfate	13	5.00	mg/L	12.50		108	90-110			
LCS Dup (2107333-BSD1)				Prepared & Analyzed: 07/28/2021						
Sulfate	14	5.00	mg/L	12.50		108	90-110	0.5	10	
Matrix Spike (2107333-MS1)	**Source: 21G0626-13**			Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	24	5.00	mg/L	12.50	15	77	80-120			M2
Matrix Spike (2107333-MS2)	**Source: 21G0626-15**			Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	106	80-120			
Matrix Spike (2107333-MS3)	**Source: 21G0626-16**			Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	106	80-120			
Matrix Spike Dup (2107333-MSD1)	**Source: 21G0626-13**			Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	24	5.00	mg/L	12.50	15	76	80-120	0.3	10	M2
Matrix Spike Dup (2107333-MSD2)	**Source: 21G0626-15**			Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	106	80-120	0.6	10	
Matrix Spike Dup (2107333-MSD3)	**Source: 21G0626-16**			Prepared: 07/28/2021 Analyzed: 08/05/2021						
Sulfate	13	5.00	mg/L	12.50	ND	107	80-120	0.5	10	
Batch 2107352 - E300.0 (2.1)										
Blank (2107352-BLK1)				Prepared: 07/28/2021 Analyzed: 07/29/2021						
Sulfate	ND	5.00	mg/L							
LCS (2107352-BS1)				Prepared: 07/28/2021 Analyzed: 07/29/2021						
Sulfate	12	5.00	mg/L	12.50		96	90-110			
LCS Dup (2107352-BSD1)				Prepared: 07/28/2021 Analyzed: 07/29/2021						
Sulfate	12	5.00	mg/L	12.50		95	90-110	1	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21G0630 DATE 7/23/21 PAGE 1 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00
CONTACT NAME : Chris Sherman
COMPANY NAME : Freeport McMoRan CQB
ADDRESS : 36 Highway 92
CITY Bisbee STATE AZ ZIP CODE 85603
PHONE 520-508-7063 FAX 520-432-1395
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0
NE55	7/19/21	1600		GW	1	X
BIMA	7/20/21	1008		GW	1	X
NOTEMAN	7/20/21	1337		GW	1	X
PALMER	7/20/21	1519		GW	1	X
BANKS 986	7/20/21	1835		GW	1	X
DODSON	7/21/21	1129		GW	1	X
GARNER 635	7/21/21	1531		GW	1	X
FRANCO 383	7/22/21	1142		GW	1	X
PANAGAKOS	7/22/21	1339		GW	1	X
PARRA	7/22/21	1815		GW	1	X
RAY	7/23/21	0945		GW	1	X

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
William R. Trinell Jr
Printed Name
Clear Creek Associates
Firm
7-23-21 14:55
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # ____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 15
Temperature 2.1
☑ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
7/23/21 1455
Date/Time

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2160630 DATE 7/23/21 PAGE 2 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE W. Russell Cornell Jr

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0
DUP 072321	7/23/21	1200		GW	1	X
Field Blank	7/23/21	0924		GW	1	X
EB 072321	7/23/21	0933		GW	1	X
EAST	7/23/21	1113		GW	1	X
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature: W. Russell Cornell Jr
Printed Name: Clear Creek Associates
Firm:
Date/Time: 7-23-21 14:55

2. RECEIVED BY:
Signature:
Printed Name:
Firm:
Date/Time:

TURNAROUND REQUIREMENTS:
____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # ____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 15
Temperature 7.1
☑ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature:
Printed Name:
Firm:
Date/Time:

4. RECEIVED BY:
Signature:
Printed Name:
Firm: TURNER LABORATORIES, INC.
Date/Time: 7/23/21 1455

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

August 11, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21G0760
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 15 sample(s) on 07/29/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Date Received: 07/29/2021

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21G0760-01	WEISKOPF 897	Ground Water	07/26/2021 1427
21G0760-02	MCCONNELL 459	Ground Water	07/27/2021 1202
21G0760-03	ANDERSON 458	Ground Water	07/27/2021 1512
21G0760-04	ZANDER	Ground Water	07/27/2021 1839
21G0760-05	MOORE	Ground Water	07/28/2021 0953
21G0760-06	HOWARD 312	Ground Water	07/28/2021 1445
21G0760-07	HOWARD NR	Ground Water	07/28/2021 1521
21G0760-08	TERRY	Ground Water	07/28/2021 1550
21G0760-09	THOMPSON 341	Ground Water	07/29/2021 1107
21G0760-10	RAMIREZ	Ground Water	07/29/2021 1225
21G0760-11	OLMOS	Ground Water	07/29/2021 1349
21G0760-12	BURKE	Ground Water	07/29/2021 1416
21G0760-13	DUP20210729	Ground Water	07/29/2021 1200
21G0760-14	FB20210729	Ground Water	07/29/2021 1200
21G0760-15	EQB20210729	Ground Water	07/29/2021 1200

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Date Received: 07/29/2021

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

M2 Matrix spike recovery was low; the associated LCS/LCSD was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 08/11/2021

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-01

Client Sample ID: WEISKOPF 897
Collection Date/Time: 07/26/2021 1427
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.5	2.12	5.00		mg/L	1	08/04/2021 1639	08/05/2021 0324	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-02

Client Sample ID: MCCONNELL 459
Collection Date/Time: 07/27/2021 1202
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	28.1	2.12	5.00		mg/L	1	08/04/2021 1639	08/05/2021 0343	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-03

Client Sample ID: ANDERSON 458
Collection Date/Time: 07/27/2021 1512
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	22.2	2.12	5.00		mg/L	1	08/04/2021 1639	08/05/2021 0402	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-04

Client Sample ID: ZANDER
Collection Date/Time: 07/27/2021 1839
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.96	2.12	5.00		mg/L	1	08/04/2021 1639	08/05/2021 0421	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-05

Client Sample ID: MOORE
Collection Date/Time: 07/28/2021 0953
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.51	2.12	5.00		mg/L	1	08/04/2021 1639	08/05/2021 0440	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-06

Client Sample ID: HOWARD 312
Collection Date/Time: 07/28/2021 1445
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	63.1	10.6	25.0		mg/L	5	08/04/2021 1650	08/09/2021 1857	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-07

Client Sample ID: HOWARD NR
Collection Date/Time: 07/28/2021 1521
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	496	106	250		mg/L	50	08/04/2021 1650	08/09/2021 1915	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-08

Client Sample ID: TERRY
Collection Date/Time: 07/28/2021 1550
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.08	2.12	5.00		mg/L	1	08/04/2021 1650	08/05/2021 0036	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-09

Client Sample ID: THOMPSON 341
Collection Date/Time: 07/29/2021 1107
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.21	2.12	5.00		mg/L	1	08/04/2021 1650	08/05/2021 0054	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-10

Client Sample ID: RAMIREZ
Collection Date/Time: 07/29/2021 1225
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.82	2.12	5.00		mg/L	1	08/04/2021 1650	08/05/2021 0112	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-11

Client Sample ID: OLMOS
Collection Date/Time: 07/29/2021 1349
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.93	2.12	5.00		mg/L	1	08/04/2021 1650	08/05/2021 0131	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-12

Client Sample ID: BURKE
Collection Date/Time: 07/29/2021 1416
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	31.5	2.12	5.00		mg/L	1	08/04/2021 1650	08/05/2021 0301	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-13

Client Sample ID: DUP20210729
Collection Date/Time: 07/29/2021 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.68	2.12	5.00		mg/L	1	08/04/2021 1650	08/05/2021 0319	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-14

Client Sample ID: FB20210729
Collection Date/Time: 07/29/2021 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	08/04/2021 1650	08/05/2021 0337	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Lab Sample ID: 21G0760-15

Client Sample ID: EQB20210729
Collection Date/Time: 07/29/2021 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	2.12	5.00	E8	mg/L	1	08/04/2021 1650	08/05/2021 0355	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21G0760
Date Received: 07/29/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108056 - E300.0 (2.1)										
Blank (2108056-BLK1)				Prepared & Analyzed: 08/04/2021						
Sulfate	ND	5.00	mg/L							
LCS (2108056-BS1)				Prepared & Analyzed: 08/04/2021						
Sulfate	13	5.00	mg/L	12.50		106	90-110			
LCS Dup (2108056-BSD1)				Prepared & Analyzed: 08/04/2021						
Sulfate	13	5.00	mg/L	12.50		106	90-110	0.2	10	
Matrix Spike (2108056-MS1)		**Source: 21H0124-01**		Prepared: 08/04/2021 Analyzed: 08/10/2021						
Sulfate	22	5.00	mg/L	12.50	12	79	80-120			M2
Matrix Spike (2108056-MS2)		**Source: 21H0152-01**		Prepared: 08/04/2021 Analyzed: 08/10/2021						
Sulfate	53	10.0	mg/L	25.00	33	81	80-120			
Matrix Spike (2108056-MS3)		**Source: 21H0155-02**		Prepared: 08/04/2021 Analyzed: 08/10/2021						
Sulfate	30	5.00	mg/L	12.50	22	67	80-120			M2
Matrix Spike Dup (2108056-MSD1)		**Source: 21H0124-01**		Prepared: 08/04/2021 Analyzed: 08/10/2021						
Sulfate	22	5.00	mg/L	12.50	12	79	80-120	0.2	10	M2
Matrix Spike Dup (2108056-MSD2)		**Source: 21H0152-01**		Prepared: 08/04/2021 Analyzed: 08/10/2021						
Sulfate	53	10.0	mg/L	25.00	33	81	80-120	0.09	10	
Matrix Spike Dup (2108056-MSD3)		**Source: 21H0155-02**		Prepared: 08/04/2021 Analyzed: 08/10/2021						
Sulfate	30	5.00	mg/L	12.50	22	67	80-120	0.008	10	M2
Batch 2108057 - E300.0 (2.1)										
Blank (2108057-BLK1)				Prepared & Analyzed: 08/04/2021						
Sulfate	ND	5.00	mg/L							
LCS (2108057-BS1)				Prepared & Analyzed: 08/04/2021						
Sulfate	12	5.00	mg/L	12.50		98	90-110			
LCS Dup (2108057-BSD1)				Prepared & Analyzed: 08/04/2021						
Sulfate	12	5.00	mg/L	12.50		97	90-110	0.5	10	
Matrix Spike (2108057-MS2)		**Source: 21G0760-10**		Prepared: 08/04/2021 Analyzed: 08/11/2021						
Sulfate	19	5.00	mg/L	12.50	8.8	81	80-120			
Matrix Spike Dup (2108057-MSD2)		**Source: 21G0760-10**		Prepared: 08/04/2021 Analyzed: 08/11/2021						
Sulfate	19	5.00	mg/L	12.50	8.8	81	80-120	0.4	10	

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2160760 DATE _____ PAGE 1 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE _____

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	504	300.0
WEESKOFF 897	7-26-21	14:27		GW	1		
MCCONNELL 459	7-27-21	12:02		GW	1		
ANDERSON 458	7-27-21	15:12		GW	1		
RAMDER	7-27-21	16:29		GW	1		
MOORE	7-28-21	9:53		GW	1		
HOWARD 312	7-28-21	14:45		GW	1		
HOWARD NR	7-28-21	15:21		GW	1		
TERRY	7-28-21	15:50		GW	1		
THOMPSON 341	7-29-21	11:07		GW	1		
RAMIREZ	7-29-21	12:25		GW	1		
OLMOS	7-29-21	13:49		GW	1		

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 7-29-21 16:45

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 15
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
Date/Time: 7/29/21 1645

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☒	Appropriate Head Space	☒
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

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Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2160760 DATE _____ PAGE 2 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00
CONTACT NAME : Chris Sherman
COMPANY NAME : Freeport McMoRan CQB
ADDRESS : 36 Highway 92
CITY Bisbee STATE AZ ZIP CODE 85603
PHONE 520-508-7063 FAX 520-432-1395
SAMPLER'S SIGNATURE _____

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX: 1507 - 300.0
BURKE	7-29-21	14:16		GW	1	X
DUP20210729	7-29-21	12:00		GW	1	X
FB20210729	7-29-21	12:00		GW	1	X
EQB20210729	7-29-21	12:00		GW	1	X
				GW		X
				GW		X
				GW		X
				GW		X
				GW		X
				GW		X
				GW		X

1. RELINQUISHED BY:
Signature _____
Printed Name Clear Creek Associates
Firm 7-29-21 16:45
Date/Time

2. RECEIVED BY:
Signature _____
Printed Name _____
Firm _____
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
_____
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 15
Temperature 1.9
☑ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature _____
Printed Name _____
Firm _____
Date/Time

4. RECEIVED BY:
Signature _____
Printed Name _____
Firm TURNER LABORATORIES, INC.
Date/Time 7/29/21 1645

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☐	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

September 21, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21I0101
Order Name: CQB Quarterly
#CC-18 10080.00

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 1 sample(s) on 09/03/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21I0101
Date Received: 09/03/2021

Order: CQB Quarterly #CC-18 10080.00

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21I0101-01	TERRY 101	Ground Water	09/03/2021 1321

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21I0101
Date Received: 09/03/2021

Case Narrative

M2 Matrix spike recovery was low; the associated LCS/LCSD was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 09/21/2021

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21I0101
Lab Sample ID: 21I0101-01

Client Sample ID: TERRY 101
Collection Date/Time: 09/03/2021 1321
Matrix: Ground Water
Order Name: CQB Quarterly #CC-18 10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	10.7	2.12	5.00		mg/L	1	09/07/2021 1643	09/18/2021 0134	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21I0101
Date Received: 09/03/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109072 - E300.0 (2.1)										
Blank (2109072-BLK1)				Prepared & Analyzed: 09/07/2021						
Sulfate	ND	5.00	mg/L							
LCS (2109072-BS1)				Prepared & Analyzed: 09/07/2021						
Sulfate	13	5.00	mg/L	12.50		105	90-110			
LCS Dup (2109072-BSD1)				Prepared & Analyzed: 09/07/2021						
Sulfate	13	5.00	mg/L	12.50		104	90-110	0.4	10	
Matrix Spike (2109072-MS1)		**Source: 21I0106-01**		Prepared: 09/07/2021 Analyzed: 09/16/2021						
Sulfate	19	5.00	mg/L	12.50	9.4	74	80-120			M2
Matrix Spike Dup (2109072-MSD1)		**Source: 21I0106-01**		Prepared: 09/07/2021 Analyzed: 09/16/2021						
Sulfate	19	5.00	mg/L	12.50	9.4	74	80-120	0.04	10	M2

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21E0101 DATE 9/3/21 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	504 - 300.0	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX
TERRY 101	9-3-21	13:21		GW	1	X	
				GW		X	
				GW		X	
				GW		X	
				GW		X	
				GW		X	
				GW		X	
				GW		X	
				GW		X	
				GW		X	
				GW		X	

1. RELINQUISHED BY:
Signature
Printed Name: Jake Alday
Firm: Clear Creek Associates
Date/Time: 9-3-21 / 15:30

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 1
Temperature 4.3
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. ~~RECEIVED~~ BY:
Signature
Printed Name: Leonard Moody
Firm: TURNER LABORATORIES, INC.
Date/Time: 9/3/21 1530

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

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Kellogg, ID 83837-0929
(208) 784-1258
www.svl.net

Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1G0301**
Bisbee, AZ 85603	Reported: 03-Aug-21 17:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
BMO-2008-6M	X1G0301-01	Ground Water	12-Jul-21 06:40	20-Jul-2021	
BMO-2008-6B	X1G0301-02	Ground Water	12-Jul-21 07:25	20-Jul-2021	
BMO-2008-5M	X1G0301-03	Ground Water	12-Jul-21 08:55	20-Jul-2021	
BMO-2008-5B	X1G0301-04	Ground Water	12-Jul-21 09:30	20-Jul-2021	
TM-15	X1G0301-05	Ground Water	12-Jul-21 11:30	20-Jul-2021	
BMO-2008-1G	X1G0301-06	Ground Water	14-Jul-21 07:00	20-Jul-2021	
BMO-2012-1M	X1G0301-07	Ground Water	14-Jul-21 09:10	20-Jul-2021	
BMO-2010-2M	X1G0301-08	Ground Water	15-Jul-21 06:00	20-Jul-2021	
TM-16	X1G0301-09	Ground Water	15-Jul-21 06:45	20-Jul-2021	
BMO-2010-1M	X1G0301-10	Ground Water	15-Jul-21 11:40	20-Jul-2021	
TM-2A	X1G0301-11	Ground Water	15-Jul-21 13:30	20-Jul-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
This report shall not be reproduced except in full, without the written approval of SVL Analytical, Inc.

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Kellogg, ID 83837-0929
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2008-6M**
SVL Sample ID: **X1G0301-01 (Ground Water)**

Sampled: 12-Jul-21 06:40
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	204	mg/L	3.00	1.80	10	X130183	RS	07/21/21 17:46	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2008-6B**
SVL Sample ID: **X1G0301-02 (Ground Water)**

Sampled: 12-Jul-21 07:25
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	7.55	mg/L	0.30	0.18		X130183	RS	07/21/21 18:05	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2008-5M**
SVL Sample ID: **X1G0301-03 (Ground Water)**

Sampled: 12-Jul-21 08:55
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	171	mg/L	3.00	1.80	10	X130183	RS	07/21/21 19:03	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2008-5B**
SVL Sample ID: **X1G0301-04 (Ground Water)**

Sampled: 12-Jul-21 09:30
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	257	mg/L	3.00	1.80	10	X130183	RS	07/21/21 19:23	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **TM-15**
SVL Sample ID: **X1G0301-05 (Ground Water)**

Sampled: 12-Jul-21 11:30
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	14.8	mg/L	0.30	0.18		X130183	RS	07/21/21 19:42	

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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2008-1G**
SVL Sample ID: **X1G0301-06 (Ground Water)**

Sampled: 14-Jul-21 07:00
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	91.7	mg/L	3.00	1.80	10	X130183	RS	07/21/21 21:00	D2

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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2012-1M**
SVL Sample ID: **X1G0301-07 (Ground Water)**

Sampled: 14-Jul-21 09:10
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	221	mg/L	3.00	1.80	10	X130183	RS	07/21/21 21:20	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2010-2M**
SVL Sample ID: **X1G0301-08 (Ground Water)**

Sampled: 15-Jul-21 06:00
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	927	mg/L	15.0	9.00	50	X130183	RS	07/21/21 21:39	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **TM-16**
SVL Sample ID: **X1G0301-09 (Ground Water)**

Sampled: 15-Jul-21 06:45
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	499	mg/L	7.50	4.50	25	X130183	RS	07/21/21 21:58	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **BMO-2010-1M**
SVL Sample ID: **X1G0301-10 (Ground Water)**

Sampled: 15-Jul-21 11:40
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	183	mg/L	3.00	1.80	10	X130183	RS	07/21/21 22:18	D2

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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Client Sample ID: **TM-2A**
SVL Sample ID: **X1G0301-11 (Ground Water)**

Sampled: 15-Jul-21 13:30
Received: 20-Jul-21
Sampled By:

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	20.1	mg/L	0.30	0.18		X130183	RS	07/21/21 22:37	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0301**
Reported: 03-Aug-21 17:38

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X130183	21-Jul-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.4	10.0	104	90 - 110	X130183	21-Jul-21	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	18.3	7.55	10.0	108	90 - 110	X130183 - X1G0301-02	21-Jul-21	
EPA 300.0	Sulfate as SO4	mg/L	25.5	14.8	10.0	107	90 - 110	X130183 - X1G0301-05	21-Jul-21	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	18.5	18.3	10.0	1.0	20	110	X130183 - X1G0301-02	

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1G0301**
Bisbee, AZ 85603	Reported: 03-Aug-21 17:38

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1G0501**
Bisbee, AZ 85603	Reported: 12-Aug-21 11:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
TM-42	X1G0501-01	Ground Water	21-Jul-21 06:20	CLS	29-Jul-2021	
TM-6	X1G0501-02	Ground Water	21-Jul-21 07:00	CLS	29-Jul-2021	
BMO-2008-11G	X1G0501-03	Ground Water	22-Jul-21 08:00	CLS	29-Jul-2021	
BMO-2008-3B	X1G0501-04	Ground Water	27-Jul-21 07:20	CLS	29-Jul-2021	
Cooper C	X1G0501-05	Ground Water	27-Jul-21 10:00	CLS	29-Jul-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Freeport McMoRan - Bisbee
36 West Hwy 92
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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0501**
Reported: 12-Aug-21 11:26

Client Sample ID: **TM-42**
SVL Sample ID: **X1G0501-01 (Ground Water)**

Sampled: 21-Jul-21 06:20
Received: 29-Jul-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	676	mg/L	7.50	4.50	25	X132129	RS	08/06/21 00:03	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0501**
Reported: 12-Aug-21 11:26

Client Sample ID: **TM-6**
SVL Sample ID: **X1G0501-02 (Ground Water)**

Sampled: 21-Jul-21 07:00
Received: 29-Jul-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	37.3	mg/L	0.30	0.18		X132129	RS	08/06/21 00:22	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0501**
Reported: 12-Aug-21 11:26

Client Sample ID: **BMO-2008-11G**
SVL Sample ID: **X1G0501-03 (Ground Water)**

Sampled: 22-Jul-21 08:00
Received: 29-Jul-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	12.6	mg/L	0.30	0.18		X132129	RS	08/06/21 01:20	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0501**
Reported: 12-Aug-21 11:26

Client Sample ID: **BMO-2008-3B**
SVL Sample ID: **X1G0501-04 (Ground Water)**

Sampled: 27-Jul-21 07:20
Received: 29-Jul-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	147	mg/L	3.00	1.80	10	X132129	RS	08/06/21 01:40	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0501**
Reported: 12-Aug-21 11:26

Client Sample ID: **Cooper C**
SVL Sample ID: **X1G0501-05 (Ground Water)**

Sampled: 27-Jul-21 10:00
Received: 29-Jul-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	657	mg/L	7.50	4.50	25	X132129	RS	08/06/21 02:38	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1G0501**
Reported: 12-Aug-21 11:26

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X132129	05-Aug-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.4	10.0	104	90 - 110	X132129	05-Aug-21	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	47.3	37.3	10.0	100	90 - 110	X132129 - X1G0501-02	06-Aug-21	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	47.4	47.3	10.0	0.1	20	101	X132129 - X1G0501-02	

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1G0501**
Bisbee, AZ 85603	Reported: 12-Aug-21 11:26

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1H0115**
Bisbee, AZ 85603	Reported: 20-Aug-21 16:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
BMO-2008-7M	X1H0115-01	Ground Water	02-Aug-21 06:35	CIS	06-Aug-2021	
BMO-2008-8M	X1H0115-02	Ground Water	02-Aug-21 10:10	CIS	06-Aug-2021	
DUP080221	X1H0115-03	Ground Water	02-Aug-21 10:10	CIS	06-Aug-2021	
BMO-2008-8B	X1H0115-04	Ground Water	02-Aug-21 10:50	CIS	06-Aug-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0115**
Reported: 20-Aug-21 16:09

Client Sample ID: **BMO-2008-7M**
SVL Sample ID: **X1H0115-01 (Ground Water)**

Sampled: 02-Aug-21 06:35
Received: 06-Aug-21
Sampled By: CIS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	36.9	mg/L	0.30	0.18		X133033	RS	08/10/21 04:36	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0115**
Reported: 20-Aug-21 16:09

Client Sample ID: **BMO-2008-8M**
SVL Sample ID: **X1H0115-02 (Ground Water)**

Sampled: 02-Aug-21 10:10
Received: 06-Aug-21
Sampled By: CIS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	795	mg/L	7.50	4.50	25	X133033	RS	08/11/21 02:40	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0115**
Reported: 20-Aug-21 16:09

Client Sample ID: **DUP080221**
SVL Sample ID: **X1H0115-03 (Ground Water)**

Sampled: 02-Aug-21 10:10
Received: 06-Aug-21
Sampled By: CIS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	797	mg/L	7.50	4.50	25	X133033	RS	08/11/21 02:58	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Dave Tryon
Project Manager

One Government Gulch - PO Box 929
Kellogg, ID 83837-0929
(208) 784-1258
www.svl.net

Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0115**
Reported: 20-Aug-21 16:09

Client Sample ID: **BMO-2008-8B**
SVL Sample ID: **X1H0115-04 (Ground Water)**

Sampled: 02-Aug-21 10:50
Received: 06-Aug-21
Sampled By: CIS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	1130	mg/L	15.0	9.00	50	X133033	RS	08/10/21 06:05	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dave Tryon
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0115**
Reported: 20-Aug-21 16:09

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X133033	10-Aug-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.2	10.0	102	90 - 110	X133033	10-Aug-21	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	47.6	36.9	10.0	108	90 - 110	X133033 - X1H0115-01	10-Aug-21	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	47.7	47.6	10.0	0.2	20	109	X133033 - X1H0115-01	

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1H0115**
Bisbee, AZ 85603	Reported: 20-Aug-21 16:09

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
BMO-2008-13B	X1H0391-01	Ground Water	16-Aug-21 06:45	CLS	19-Aug-2021	
TM-7	X1H0391-02	Ground Water	16-Aug-21 12:08	CLS	19-Aug-2021	
BMO-2008-13M	X1H0391-03	Ground Water	16-Aug-21 15:20	CLS	19-Aug-2021	
BMO-2008-10GU	X1H0391-04	Ground Water	17-Aug-21 07:30	CLS	19-Aug-2021	
BMO-2008-10GL	X1H0391-05	Ground Water	17-Aug-21 11:10	CLS	19-Aug-2021	
TM-19A	X1H0391-06	Ground Water	18-Aug-21 06:40	CLS	19-Aug-2021	
BMO-2008-9M	X1H0391-07	Ground Water	18-Aug-21 11:50	CLS	19-Aug-2021	
EQB-081821	X1H0391-08	Ground Water	18-Aug-21 12:00	CLS	19-Aug-2021	
FB-081821	X1H0391-09	Ground Water	18-Aug-21 12:05	CLS	19-Aug-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **BMO-2008-13B**
SVL Sample ID: **X1H0391-01 (Ground Water)**

Sampled: 16-Aug-21 06:45
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	1110	mg/L	15.0	9.00	50	X134243	RS	08/23/21 14:15	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dave Tryon
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **TM-7**
SVL Sample ID: **X1H0391-02 (Ground Water)**

Sampled: 16-Aug-21 12:08
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	114	mg/L	3.00	1.80	10	X134243	RS	08/23/21 14:32	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Dave Tryon
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **BMO-2008-13M**
SVL Sample ID: **X1H0391-03 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 16-Aug-21 15:20
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	418	mg/L	3.00	1.80	10	X134243	RS	08/23/21 14:50	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dave Tryon
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Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **BMO-2008-10GU**
SVL Sample ID: **X1H0391-04 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 17-Aug-21 07:30
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	2080	mg/L	15.0	9.00	50	X134243	RS	08/23/21 15:07	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **BMO-2008-10GL**
SVL Sample ID: **X1H0391-05 (Ground Water)**

Sampled: 17-Aug-21 11:10
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	1960	mg/L	15.0	9.00	50	X134243	RS	08/23/21 15:25	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **TM-19A**
SVL Sample ID: **X1H0391-06 (Ground Water)**

Sampled: 18-Aug-21 06:40
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	62.0	mg/L	3.00	1.80	10	X134243	RS	08/23/21 15:42	D2,M4

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **BMO-2008-9M**
SVL Sample ID: **X1H0391-07 (Ground Water)**

Sampled: 18-Aug-21 11:50
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	105	mg/L	3.00	1.80	10	X134243	RS	08/23/21 17:10	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dave Tryon
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Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **EQB-081821**
SVL Sample ID: **X1H0391-08 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 18-Aug-21 12:00
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	< 0.30	mg/L	0.30	0.18		X134243	RS	08/23/21 17:28	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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Freeport McMoRan - Bisbee
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Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Client Sample ID: **FB-081821**
SVL Sample ID: **X1H0391-09 (Ground Water)**

Sampled: 18-Aug-21 12:05
Received: 19-Aug-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	< 0.30	mg/L	0.30	0.18		X134243	RS	08/23/21 17:45	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dave Tryon
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1H0391**
Reported: 31-Aug-21 17:57

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X134243	23-Aug-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.7	10.0	107	90 - 110	X134243	23-Aug-21	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	70.1	62.0	10.0	0.30R>S	90 - 110	X134243 - X1H0391-06	23-Aug-21	D2,M4

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	70.0	70.1	10.0	0.2	20	0.30R>S	X134243 - X1H0391-06	D2,M4

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1H0391**
Bisbee, AZ 85603	Reported: 31-Aug-21 17:57

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
M4	The analysis of the spiked sample required a dilution such that the spike recovery calculation does not provide useful information. The LCS recovery was acceptable.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X1I0412**
Bisbee, AZ 85603	Reported: 06-Oct-21 16:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
HOBAN	X1I0412-01	Ground Water	20-Sep-21 07:30	CLS	22-Sep-2021	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1I0412**
Reported: 06-Oct-21 16:49

Client Sample ID: **HOBAN**
SVL Sample ID: **X1I0412-01 (Ground Water)**

Sampled: 20-Sep-21 07:30
Received: 22-Sep-21
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	477	mg/L	7.50	4.50	25	X140148	EBR	09/30/21 00:49	D2,M4

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dave Tryon
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X1I0412**
Reported: 06-Oct-21 16:49

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X140148	30-Sep-21	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.6	10.0	106	90 - 110	X140148	30-Sep-21	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	486	477	10.0	0.30R>S	90 - 110	X140148 - X1I0412-01	30-Sep-21	D2,M4

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	489	486	10.0	0.6	20	0.30R>S	X140148 - X1I0412-01	D2,M4

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X110412**
Bisbee, AZ 85603	Reported: 06-Oct-21 16:49

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
M4	The analysis of the spiked sample required a dilution such that the spike recovery calculation does not provide useful information. The LCS recovery was acceptable.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

December 29, 2021

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 21L0430
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 1 sample(s) on 12/14/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21L0430
Date Received: 12/14/2021

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21L0430-01	NWC-04	Ground Water	12/14/2021 0843

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21L0430
Date Received: 12/14/2021

Case Narrative

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21L0430
Lab Sample ID: 21L0430-01

Client Sample ID: NWC-04
Collection Date/Time: 12/14/2021 0843
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	195	32.6	50.0		mg/L	10	12/16/2021 1057	12/20/2021 2251	ACG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 21L0430
Date Received: 12/14/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2112204 - E300.0 (2.1)										
Blank (2112204-BLK1)				Prepared & Analyzed: 12/16/2021						
Sulfate	ND	5.00	mg/L							
LCS (2112204-BS1)				Prepared & Analyzed: 12/16/2021						
Sulfate	13	5.00	mg/L	12.50		108	90-110			
LCS Dup (2112204-BSD1)				Prepared & Analyzed: 12/16/2021						
Sulfate	13	5.00	mg/L	12.50		108	90-110	0.1	10	

TURNER LABORATORIES INC.
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21L0430 DATE 12/14/21 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC13.2870.30

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE [signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	504-300.0
NWC-04	12/14/21	0843		GW	1	X
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature [signature]
Printed Name Graham Kilduff
Firm Clear Creek Associates
Date/Time 12/14/21 11:13

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature [signature]
Printed Name [signature]
Firm TURNER LABORATORIES, INC.
Date/Time 12/14/21 11:13

TURNAROUND REQUIREMENTS:
____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ✓ Y ____ N
P.O. # ____
Bill to: CQB

SAMPLE RECEIPT: IR31
Total Containers 1
Temperature 0.9
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☐	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☐	Received Within Hold Time	☐

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

APPENDIX C

DATA VERIFICATION REPORT

APPENDIX C

DATA VERIFICATION REPORT

ANNUAL GROUNDWATER MONITORING REPORT FOR 2021

Prepared for:

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March 3, 2022

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1. INTRODUCTION

This report summarizes the data verification review of field measurements, groundwater sampling, and laboratory analyses conducted during 2021 by Clear Creek Associates and Freeport Minerals Corporation, Copper Queen Branch (CQB) pursuant to Mitigation Order on Consent Docket No. P-121-07 (ADEQ, 2007). Clear Creek Associates and CQB collected groundwater samples according to the groundwater monitoring program described by the Mitigation Plan (Clear Creek Associates, 2015) and subsequent modifications recommended by the 2018 annual performance review (e.g. Clear Creek Associates, 2019). Analytical results for groundwater samples collected for this project during 2021 were reported to Clear Creek Associates by SVL Analytical, Inc. (SVL) of Kellogg, Idaho and Turner Laboratories, Inc. (Turner) of Tucson, Arizona. Clear Creek Associates compiled and evaluated the analytical results for preparation of this report.

Quality assurance (QA) and quality control (QC) procedures for groundwater monitoring are specified in the *Quality Assurance Project Plan for Aquifer Characterization Plan* (QAPP) (Appendix F of Hydro Geo Chem, Inc., 2008), including water level measurement, groundwater sampling, chain-of-custody (COC) documentation, laboratory analysis, and reporting. This report reviews field sampling procedures for samples collected by Clear Creek Associates and CQB. Additionally, sample handling and laboratory QA/QC data are evaluated according to the data quality indicators (DQIs) in the QAPP.

The laboratory reports for the 2021 groundwater samples are in Appendix B of this annual report, including COC forms, laboratory correspondence, QC summaries, data qualifiers, and internal QA/QC tests performed by the laboratory. Based on the results of laboratory control samples, matrix spike/recovery and blank spikes, neither SVL nor Turner advised any modifications regarding the usability and data validation status of the laboratory results. The analytical results for 161 samples collected by Clear Creek Associates and CQB in 2021 are contained in 18 reports with the SVL and Turner laboratory identification numbers listed in the following tables.

LAB ID	Q1 WELLS REPORTED
Number of wells sampled: 42 Number of well samples collected (including duplicates and multiple samples from one well): 45 Number of duplicate samples collected: 3 Number of field and equipment blanks collected: 6 Total number of samples collected: 51	
21A0251	AWC-05, AWC-03, DUP20210104, FB20210104, EQB20210104, AWC-02, BMO-2010-3B, BMO-2010-3M, TM-10 USBP, BMO-2015-2B, BMO-2015-2BL, BMO-2015-1B, BMO-2015-1BL, BMO-2014-4BL, BMO-2014-4B, COB WL, BMO-2014-2BL, BMO-2014-2BU, BMO-2014-1BU, BMO-2014-3BL, BMO-2014-3BU, WEED, SCHWARTZ, DUP20210108, FB20210108, EQB20210108
21A0365	PANAGAKOS, DODSON, NWC-04, NCW-02, NWC-06, COB MW-2, ROGERS E, KEEFER, RUIZ 146, POWER 639
21B0305	AWC-04, DUP20210209, FB20210209, EQB20210209
21C0329	BMO-2014-1BL, BMO-2015-1BL
X1B0195	BMO-2012-1M, BMO-2008-6M, BMO-2008-6B, BMO-2008-5M, BMO-2008-5B, BMO-2008-1G, BMO-2008-3B, BMO-2008-11G
X1C0343	TM-07
LAB ID	**Q2 WELLS REPORTED**
Number of wells sampled: 1 Number of well samples collected (including duplicates and multiple samples from one well):1 Number of duplicate samples collected: 0 Number of field and equipment blanks collected: 0 Total number of samples collected:1	
21CD0018	NWC-04
LAB ID	**Q3 WELLS REPORTED**
Number of wells sampled: 90 Number of well samples collected (including duplicates and multiple samples from one well):96 Number of duplicate samples collected: 6 Number of field and equipment blanks collected: 12 Total number of samples collected:108	
21G0430	COB WL, TM-10 USBP, BMO-2010-3B, BMO-2010-3M, KEEFER, BMO-2015-2B, BMO-2015-2BL, BMO-2014-4BL, BMO-2014-4B, BMO-2015-1B, BMO-2015-1BL, ROGERS E, BMO-2014-2BL, BMO-2014-2BU, BMO-2014-1BU, BMO-2014-1BL, BMO-2014-3BL, BMO-2014-3BU, COOPER 988, FB20210713, EQB20210713, DUP20210713, FB20210716, EQB20210716, DUP20210716
21G0626	POWER 639, AWC-05, AWC-03, AWC-04, AWC-02, SCHWARTZ, POOL, COB MW-3, COB MW-2, ECHAVE, COB MW-1B, RUIZ 146, WEED, DUP20210721, FB20210721, EQB20210721, NWC-06, NWC-02, NWC-04, ROGERS 596, BMO-2008-4B, PIONKE 517
21G0630	NESS, BIMA, NOTEMAN, PALMER, BANKS 986, DODSON, GARNER 635, FRANCO 383, PANAGAKOS, PARRA, RAY, DUP072321, FIELD BLANK, EB072321, EAST
21G0760	WEISKOPF 897, MCCONNELL 459, ANDERSON 458, ZANDER, MOORE, HOWARD 312, HOWARD NR, TERRY, THOMPSON 341, RAMIREZ, OLMOS, BURKE, DUP20210729, FB20210729, EQB20210729
X1G0301	BMO-2008-6M, BMO-2008-6B, BMO-2008-5M, BMO-2008-5B, TM-15, BMO-2008-1G, BMO-2010-2M, TM-16, BMO-2012-1M, TM-2A
X1G0501	TM-42, TM-6, BMO-2008-11G, BMO-2008-3B, COOPER C
X1H0115	BMO-2008-7M, BMO-2008-8M, DUP080221, BMO-2008-8B
X1H0391	BMO-2008-13B, TM-7, BMO-2008-13M, BMO-2008-10GU, BMO-2008-10GL, TM-19A, BMO-2008-9M, EQB-081821, FB-081821
21I0101	TERRY 101
X1I0412	HOBAN
	Q4 WELLS REPORTED
Number of wells sampled: 1 Number of well samples collected (including duplicates and multiple samples from one well): 1 Number of duplicate samples collected: 0 Number of field and equipment blanks collected: 0 Total number of samples collected: 1	
21L0430	NWC-04

2. OPERATIONS

Field operations for this project consisted of the following for all wells sampled by Clear Creek Associates and CQB:

- Static water level measurement, if possible,
- Well purging, if needed,
- Collection of water quality field parameters (pH in standard units [SU], specific conductance [SC] in microSiemens per centimeter [µS/cm], and temperature in degrees Celsius [°C]),
- Collection of groundwater samples for water quality analysis,
- Collection of groundwater QA and QC samples per requirements in the QAPP, and
- Equipment decontamination.

Field notebook entries and sampling forms were evaluated for quality assurance and met the documentation requirements stated in the QAPP.

2.1 Water Level Monitoring

Static water level measurements were attempted at each well that was sampled (where there are no known obstructions or lack of wellhead access to prevent static water level measurement) and at all wells where water level only monitoring was conducted. Water levels at pumping wells were measured while the well pump was off whenever possible. Because it is not always possible to ascertain how long the pump had been off prior to the water level measurement, some water levels may be affected by residual drawdown. If a well was pumping during the water level measurement, the pumping status of the well was noted on the field sheet. Before measuring the water level at each well, the battery on the water level indicator was checked and the sensitivity level was adjusted, if necessary. Depth to water below a surveyed measuring point was measured to the nearest 0.01 feet, and verified by measuring the depth to water multiple times in order to obtain a consistent reading and accurate measurement.

2.2 Groundwater Sampling

Groundwater samples were collected from operable and accessible wells designated for water quality sampling under the Mitigation Plan (Clear Creek Associates, 2015). All wells sampled

contained dedicated submersible pumps. Location information for the wells sampled for water quality and water level measurements is listed in Table 4 of the main text.

2.2.1 Pre-Sampling Field Activities

The pH[1] and SC[2] multipurpose meters were calibrated on each day of sampling. In addition, the water level indicator was checked for a signal, which indicates a working meter and sufficient battery strength. On each day where sampling extended for more than half a day, a mid-day calibration check was performed on the pH and SC meters. In addition to calibrating the instruments daily, measures were taken to 1) properly decontaminate field equipment, 2) ensure the appropriate storage and transport temperature of the samples, and 3) document activities related to the collection of groundwater samples as part of this project. These objectives were met by 1) replenishing or obtaining supplies of distilled water and ice daily, 2) use of the proper preservative and sample collection containers, 3) properly packing the samples on ice during field activities, 4) using distilled water to properly decontaminate field equipment prior to the start of sampling each day and after sampling at each well, and 5) obtaining the appropriate field notebook in order to document field activities related to the groundwater monitoring program.

2.2.2 Well Purging, Field Measurements, and Sample Collection

Three wetted casing volumes were purged from each well prior to sampling, when possible. However, when three casing volumes could not be purged, this information was noted on the groundwater sampling form (Appendix A of the annual report). Purge water was discharged to the ground surface.

Field measurements of pH, temperature, and specific conductance were collected at varying intervals during well purging at each well where a water quality sample was collected. If possible, field parameters were monitored until the measurements stabilized within 0.3 standard units for pH, 2° C for temperature and 100 µS/cm for specific conductance as described in Section 4.2.1.2 of the QAPP.

In 2021, 161 groundwater samples (duplicate and multiple samples included) were collected for analysis from 90 wells. Groundwater samples were collected by filtering the sample into a 250-milliliter bottle using a clean filtration apparatus and one disposable 0.45-micron filter.

[1] Field pH meters were calibrated using a three point calibration.
[2] Field SC meters were calibrated using standard stock solutions.

Samples were labelled with the site name, date, time collected, sampler's initials, and the required analysis on the bottle. All bottles were provided by the laboratories and maintained in a clean and secure work area until used in the field.

2.2.3 Post-Sampling Field Activities

Post-sampling field activities consisted of equipment decontamination, sample storage, and sample shipping. Field equipment that came into contact with the sample was decontaminated using Alconox® detergent and distilled water. After washing, the equipment was rinsed with distilled water. After sample collection, samples from each well were placed into a plastic bag to prevent the label from becoming illegible and stored on ice until they could be packed securely for shipping to the laboratory. The chain of custody was filled out prior to shipping or delivery to the laboratory, signed by the sampler, and then placed in a plastic bag along with the samples.

3. SAMPLE HANDLING

All 2021 samples collected by Clear Creek Associates and CQB were shipped to SVL or hand-delivered to Turner for analysis. COC documentation accompanied all samples submitted and included the sample name, collection date, and time. Laboratory reports include the date the samples were received by SVL or Turner. As noted on the laboratory reports from SVL and Turner, all of the sample bottles were received intact, properly preserved, and in good condition. The samples were shipped overnight delivery to SVL or delivered to Turner. The samples were collected, shipped or delivered, and received by SVL or Turner within the established holding time for dissolved sulfate analysis in accordance with United States Environmental Protection Agency (EPA) Method 300.0.

4. LABORATORY QUALITY CONTROL

As specified in the QAPP, laboratory QC was maintained for all analyses through the use of licensed laboratories, approved analytical methods, QC measurements, appropriate turn-around-time for analysis (timeliness), method detection limits (MDLs), reporting limits (RLs), and practical quantitation limits (PQLs). Each of these controls is discussed in the following subsections.

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

4.1 Licensure

SVL is licensed with the Arizona Department of Health Services (license number AZ0538) and is accredited in accordance with the National Environmental Laboratory Accreditation Conference. Turner is also licensed with the Arizona Department of Health Services (license number AZ0066).

4.2 Analytical Method

EPA method 300.0 was used for sulfate analysis during this monitoring period.

4.3 Method Detection Limit, Reporting Limit, and Practical Quantitation Limit

The MDLs, RLs, and PQLs change based on dilution of the samples. The MDLs, RLs, and PQLs of an undiluted sample as reported by SVL and Turner are shown in the following table:

Lab	Method	MDL (mg/L)	RL/PQL (mg/L)	Target MDL[1] (mg/L)
SVL	EPA 300.0	0.18	0.30	10
Turner	EPA 300.0	2.12	5.00	10

mg/L = milligrams per liter
[1] Target MDL from Table F.2 of QAPP

The SVL and Turner-reported MDLs are equal to or less than the target MDL identified in the QAPP. The PQL is the amount of a constituent that can be consistently quantified with acceptable precision and accuracy (QAPP Section 3.3.7). The PQL for an undiluted sample reported by Turner is 5.0. The RL is used by SVL and is the smallest concentration the laboratory will report for a constituent. The RL of an undiluted sample reported by SVL is 0.30 mg/L. The Turner PQL and SVL RL are lower than the target MDL of 10 mg/L from the QAPP. Samples with higher range concentrations of sulfate required dilution, which increases the PQL and RL. In all cases of an RL or PQL greater than 10 mg/L sulfate, the laboratory analysis yielded a detected quantity. Thus, detection sensitivity of the analyses is adequate to be consistent with the target MDL.

4.4 Timeliness

All samples submitted for sulfate analysis were analyzed within the twenty-eight day holding time specified by EPA Method 300.0. The reanalysis of two samples was conducted outside of the holding time, 37 days after the samples were collected. The reanalysis is discussed in Section 4.5.4

4.5 Quality Control Measurements

The following QC samples were prepared and analyzed:

- Calibration blanks and calibration verification standards
- Analytical spike and analytical spike duplicate samples
- Laboratory control samples
- Laboratory duplicate samples
- Field blank samples

4.5.1 Calibration Blanks and Calibration Verification Standards

Results from the analyses of the initial calibration blanks and initial calibration verification standards conducted by EPA Method 300.0 were reviewed. The results of each initial calibration blank analyzed showed results below the RL or PQL. All analytical results for the initial calibration verification standards and laboratory-fortified blanks showed percent recoveries that were within the acceptance criteria specified by the SVL and Turner QA Plans.

4.5.2 Analytical Spike

Analytical spike and spike duplicate samples were analyzed by the laboratories 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 all SVL analyses were between 90 and 110 percent. Flags are used in instances in which analytical spike recoveries were high ("M1"), low ("M2"), or unusable ("M3" and "M4"). The "M1", "M2", and "M3" flags were not used in an SVL report in 2021. The "M4" flag was used on SVL reports X1H0391 and X1I0412. In both cases where a qualifier was used, the laboratory control sample recovery was checked by SVL to ensure that it was acceptable within the criteria specified by their QA Plan. The laboratory control samples were prepared by adding a sulfate spike to de-ionized water.

Spike recoveries for samples analyzed by Turner were between 80 and 120 percent except in cases where a qualifier was used. There were no "M1", "M3", or "M4" flags reported by Turner in 2021. The "M2" flag was used on Turner reports 21B0305, 21D0118, 21G0430, 21G0626, 21G0630, 21G0760, and 21I0101. In the cases for which a qualifier was used, the laboratory control sample recovery was checked by Turner to ensure that it was acceptable within the criteria specified by their QA Plan. The laboratory control samples were prepared by adding a sulfate spike to de-ionized water.

4.5.3 Laboratory Duplicate Samples

Analyses of laboratory duplicate samples were reviewed as part of this data verification report. In all cases where the relative percent difference (RPD) could be calculated for laboratory duplicate samples, the RPD was within 20 percent, which is the tolerance range set by the laboratories. The results met QA criteria and demonstrate an appropriate level of precision in laboratory analysis of these samples. Field duplicate samples are discussed in Section 5.1.

4.5.4 Sample Re-Analysis

During 2021, three samples were re-analyzed by Turner at the request of Clear Creek Associates based on comparison with historical results and no samples were re-analyzed by SVL. The original and re-analysis results are shown in the table below. In each case the original results were not confirmed and the re-analysis was in line with historical results. The re-analysis results for each sample were used in Table 3 and Figures 6 and 9 of the main report.

SVL/Turner Project No.	Well ID	Original Result (mg/L)	Re-Analysis (mg/L)	RPD
21A0251	SCHWARTZ	14.3	156	166.41%
21G0430	ROGERS E	13.2	8.94	38.48%
21G0430	BMO-2014-2BU	130	84.9	41.97%

4.5.5 Blank Samples

Field and equipment blank samples were collected in accordance with procedures described in Section 4.2.1.5 of the QAPP. Field and equipment blank samples were collected and submitted along with other samples to evaluate the potential for contaminant introduction under field conditions. Section 4.2.1.5 of the QAPP requires the collection of a minimum of one field blank and one equipment blank sample for every twenty samples.

During 2021, 18 blank samples were collected, including nine field blanks (FB20210104, FB20210108, FB20210209, FB20210713, FB20210716, FB20210721, Field Blank, FB20210729, and FB-081821) and nine field equipment blanks (EQB20210104, EQB20210108, EQB20210209, EQB20210713, EQB20210716, EQB20210721, EB072321, EQB20210729, and EQB-081821). None of the blank samples collected in 2021 had sulfate concentrations above the SVL RL of 0.30 mg/L, or the Turner PQL of 5.0 mg/L. The results demonstrate that the sulfate concentrations reported in 2021 were not affected by sample collection and sample handling procedures. The collection of nine field blanks and nine equipment blanks meets the requirement for the collection of one of each type of blank for every 20 samples for 2021.

5. DATA QUALITY INDICATORS

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

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

Each of these DQIs is discussed below in relation to the groundwater sampling and analysis conducted in 2021.

5.1 Precision

Precision indicates how well a measurement can be reproduced. Precision is quantified by calculating the RPD between sulfate analyses of duplicate samples and by measuring the water level multiple times before recording the result.

For the QA/QC of analytical data, 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 Section 4.5.3 there were no exceedances of RPD QA criteria for any laboratory duplicates. During this monitoring period, nine field-filtered duplicate samples (DUP20210104, DUP20210108, DUP20210209, DUP20210713, DUP20210716, DUP20210721, DUP072321, DUP20210729, DUP080221) were collected for analysis. The collection of nine duplicate samples meets the QA/QC method and quantity goal stated in Section 4.2.1.5 of the QAPP.

Sulfate results for the duplicate samples collected are provided in the table below. The range of RPD values was between 0.0 and 8.40 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 for the analytical data.

Turner/SVL Project No.	Well ID	Duplicate ID	Sample (mg/l)	Duplicate (mg/l)	RPD
21A0251	AWC-05	DUP20210104	18.7	18.4	1.62%
21A0251	SCHWARTZ	DUP20210108	156	148	5.26%
21B0305	AWC-04	DUP20210209	23.9	23.3	2.54%
21G0430	BMO-2010-3B	DUP20210713	20.9	21.2	1.43%
21G0430	COOPER 988	DUP20210716	18.5	18.5	0.00%
21G0626	COB MW-1B	DUP20210721	918	844	8.40%
21G0630	RAY	DUP072321	209	209	0.00%
21G0760	RAMIREZ	DUP20210729	8.82	8.68	1.60%
X1H0115	BM-2008-8M	DUP080221	795	797	0.25%

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

Precision for water level monitoring was met by measuring the water level repeatedly until readings were within 0.03 feet of one another. Readings within that range were obtained from all wells where groundwater measurements were collected; meeting the DQI for precision.

5.2 Bias

Bias is a systematic distortion of measurements causing consistent errors in one direction. Bias is managed in this data set by the consistent application of standardized sample collection and analysis procedures. As discussed in Section 4.5.5, no blank samples had detections above the target MDL indicating that the sampling collection and analysis procedures did not contribute sulfate to the results.

5.3 Accuracy

Accuracy is a measure of the agreement of a measurement to a known value and is measured using the recoveries from laboratory control samples. As discussed in Sections 4.5.1, 4.5.2, and 4.5.3 there were no significant exceedances of the recovery QA criteria for any of the calibration standards, analytical spikes, or laboratory duplicates, respectively. As discussed in Section 4.5.5,

none of the blank samples had sulfate detections above the target MDL indicating that the sampling collection and analysis procedures did not significantly contribute sulfate to the results.

The accuracy of water level measurements was evaluated by comparing measurements to prior measurements to ensure consistency. Based on this information, the overall accuracy of the data is judged sufficient for the purpose of aquifer characterization.

5.4 Representativeness

All water level measurements and samples were taken from locations identified in the Mitigation Plan following standard sampling procedures and QA/QC guidelines specified in the QAPP. In addition, results are expected to be representative of groundwater quality at the sampled locations because sulfate was not detected in the field or equipment blanks above the target MDL.

5.5 Comparability

All samples were collected using standardized procedures (HGC, 2008) and were analyzed by SVL and Turner using standardized methods. Insofar as standardized sample collection and analytical methods are adhered to, the sample results should be comparable.

5.6 Completeness

All samples collected and subsequently analyzed and reported by SVL and Turner satisfy the QA/QC criteria for this project. The completeness of analytical results is 100 percent, which exceeds the minimum 90 percent completeness DQI in Section 3.3.6 of the QAPP.

5.7 Sensitivity

The analytical methods used to analyze the samples meet the MDL requirements specified in Table F.2 of the QAPP. The water level sounder was accurate to 0.01 feet as specified in Section 4 of the QAPP. Therefore, the analytical sensitivity is considered acceptable for use in aquifer characterization.

5.8 Reliability

After analyzing the results of all samples, comparing results to historical data, and carefully reviewing the field and laboratory methods used, the data reported here are judged to provide a reliable representation of groundwater conditions at the sampled locations for 2021.

6. REFERENCES

Arizona Department of Environmental Quality (ADEQ). 2007. Mitigation Order on Consent Docket No. P-121-07, In the Matter of: Phelps Dodge Corporation, Copper Queen Branch, located at 36 West Highway 92, Bisbee, Arizona, ADEQ Identification Number 100531. November 14, 2007.

Clear Creek Associates. 2015. Mitigation Plan for Sulfate with respect to Drinking Water Supplies, Mitigation Order on Consent No. P-121-07. March 6, 2015.

Clear Creek Associates. 2019. Mitigation Performance Review for 2018, Mitigation Order on Consent No. P-121-07. March 28, 2019.

Hydro Geo Chem, Inc. 2008. Revision 1, Work Plan to Characterize and Mitigate Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Concentrator Tailing Storage Area, Cochise County, Arizona. July 3, 2008.

APPENDIX D

WELL RECORDS REGISTRY REVIEW

APPENDIX D

WELL RECORDS REGISTRY REVIEW

ANNUAL GROUNDWATER MONITORING REPORT FOR 2021

Prepared for:

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TABLE

D.1. Well Records Review Summary

FIGURES

D.1. Project Location Map
D.2. Well Search Area and New Well Registrations

APPENDIX

D.1. Imaged Records

1. INTRODUCTION

1.1 Scope and Objectives

This report describes a review of the Arizona Department of Water Resources (ADWR) 55 Well Registry Database (WRD) to identify new registered wells installed since January 2021 within one mile of the groundwater sulfate plume near the Freeport Minerals Corporation, Copper Queen Branch (CQB) Concentrator Tailing Storage Area (CTSA) (Figure D.1). The well registry records review is a requirement of the Mitigation Plan (Clear Creek Associates, 2015) submitted to Arizona Department of Environmental Quality (ADEQ) in 2015 pursuant to Mitigation Order (MO) on Consent Docket No. P-121-07 (MO) between CQB and ADEQ.

The well registry records review is conducted pursuant to Section 2.4 of the Mitigation Plan which states the following.

> *"The ADWR well registry records will be reviewed annually to identify new existing wells installed within one mile of the plume. Water use at new wells will be determined from the ADWR registry record and by inquiry with the well owner."*

An initial inventory of wells within one mile of the plume was submitted to ADEQ in 2008 (Hydro Geo Chem, Inc., 2008). A well inventory update conducted using WRD information available as of April 2012 was submitted to ADEQ in 2014 (Clear Creek Associates, 2014). Annual well records reviews were submitted as part of the Annual Groundwater Reports for each year from 2015 to 2020 (Clear Creek Associates, 2016, 2017, 2018, 2019, 2020, and 2021). The last well records review (Clear Creek Associates, 2021) used WRD information available as of January 2021.

The well records review reported herein discusses only new WRD records added to the WRD between January 2021 and January 2022. The WRD was downloaded from the ADWR website (https://gisdata2016-11-18t150447874z-azwater.opendata.arcgis.com/search?tags=well) on January 10, 2022 as a shapefile for use with ESRI ArcMap software. The website indicated that the shapefile was last updated on January 10, 2022.

1.2 Monitoring of Drinking Water Supplies

The MO set the action level for the sulfate concentration in drinking water supplies at 250 milligrams per liter (mg/L). The edge of the sulfate plume is defined as the 250 mg/L sulfate concentration contour estimated based on the results of groundwater monitoring. CQB conducts groundwater sampling for sulfate at drinking water supply and monitoring wells according to the long term plume monitoring and expanded groundwater monitoring programs described in the Mitigation Plan. Public drinking water supplies and private drinking water supplies within 2,000 feet of the plume are sampled semiannually. Annual sampling is performed at private drinking water supplies between 2,000 feet and one mile of the plume, and at drinking water supply wells installed below the plume as mitigation actions. New drinking water supply wells within a mile of the plume are added to the long term plume monitoring program as they are identified, contingent on well owner approval.

2. METHODOLOGY

2.1 Identification of Wells Within One Mile of the Plume

Figures D.1 and D.2 show the sulfate plume based on groundwater monitoring data for the third quarter of 2021. The January 2022 WRD and Geographic Information Systems (GIS) software were used to identify registered wells installed within 1 mile of the sulfate plume. The database was imported into the GIS software and a shapefile was created to encompass the area 1 mile from the edge of the sulfate plume plus a safety factor of 0.1 miles. The safety factor accounts for uncertainty in the exact position of wells because the WRD contains only cadastral coordinates accurate to approximately 470 feet. Figure D.2 shows the outline of the search area 1.1 miles from the sulfate plume. The list of wells within the January 2022 search area was compared to the list of wells reported in the Well Records Review for 2021 to identify new records. Table D.1 lists the new record added to the WRD between January 2021 and January 2022. The location of the new well record is shown on Figure D.2.

3. RESULTS

3.1 New Records Identified

The well records review identified one new record for a well within a mile of the plume (Table D.1 and Figure D.2). The well registry number for the new record is 234101. The ADWR imaged records for the well is attached as Appendix D.1.

Well 55-234101 is a replacement well for the unregistered TERRY well. The new well was installed July 2021 and was sampled after it was equipped in September 2021 as part of the third quarter sampling. The well is used as a private drinking water supply well and it is reported in the main text as TERRY 101. TERRY 101 was added to the annual sampling schedule because it is a private drinking water supply well greater than 2,000 feet from the sulfate plume.

4. REFERENCES

Clear Creek Associates. 2014. Well Inventory Update, Task 1 of Aquifer Characterization Plan for Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. June 30, 2014.

Clear Creek Associates. 2015. Mitigation Plan for Sulfate with Respect for Drinking Water Supplies, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 6, 2015.

Clear Creek Associates. 2016. Annual Groundwater Monitoring Report for 2015, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 1, 2016.

Clear Creek Associates. 2017. Annual Groundwater Monitoring Report for 2016, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 1, 2017.

Clear Creek Associates. 2018. Annual Groundwater Monitoring Report for 2017, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. February 23, 2018.

Clear Creek Associates. 2019. Annual Groundwater Monitoring Report for 2018, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 6, 2019.

Clear Creek Associates. 2020. Annual Groundwater Monitoring Report for 2019, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 10, 2021.

Hydro Geo Chem. 2008. Well Inventory Report, Task 1 of Aquifer Characterization Plan for Mitigation Order on Consent No. P-121-07, Cochise County, Arizona. July 28, 2008.

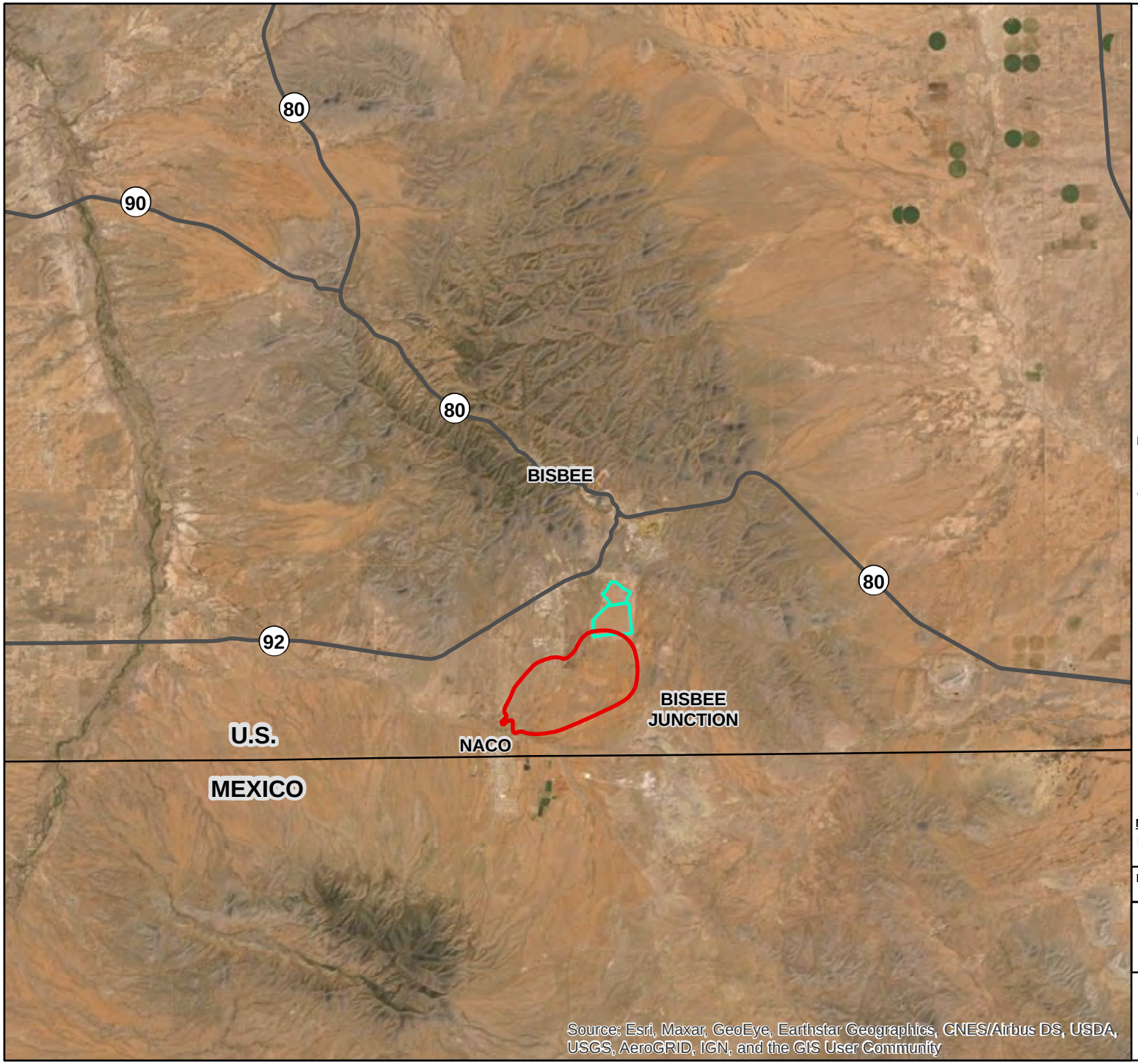
TABLE

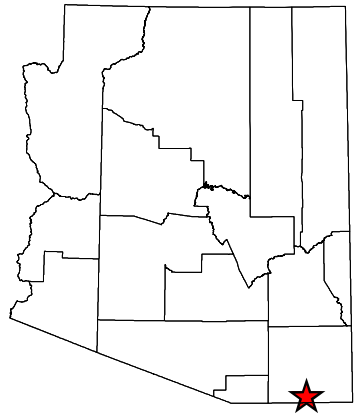
TABLE D.1.
Well Record Review Summary

Well Registry Number	Owner Name	Well Name	Category	MO Groundwater Monitoring Frequency	Operational	Usage
Domestic Water Supply Well						
234101	James Terry	TERRY 101	Domestic	Annual	Yes	Domestic Supply

CLEAR CREEK ASSOCIATES

FIGURES





Legend

- Third Quarter 2021 250 mg/L Sulfate Plume
- CTSA
- Highway
- International Border

Miles

0 1 2 4

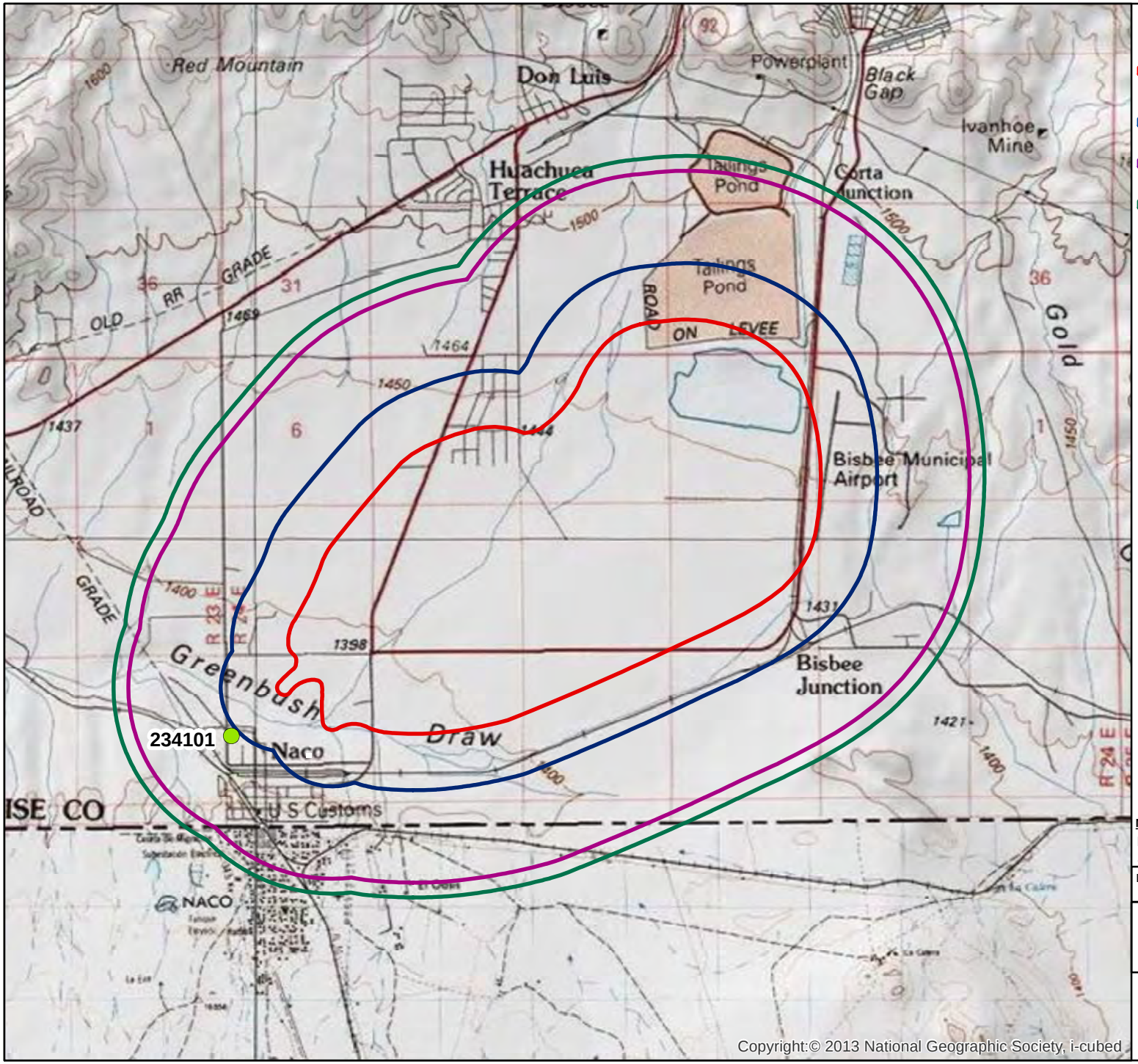
Notes:

Projection: UTM Zone 12N NAD83

Date	File ID
1/12/2022	055038-560

CLEAR CREEK ASSOCIATES

FIGURE D.1
Project Location Map



Legend

- Third Quarter 2021 250 mg/L Sulfate Plume
- 2,000 Feet from Sulfate Plume
- 1 Mile from Sulfate Plume
- 1.1 Miles from Sulfate Plume
- New Well Record

Feet
0 2,000 4,000 8,000

Notes:

Projection: UTM Zone 12N NAD83

Date	File ID
1/12/2022	055038-570

CLEAR CREEK ASSOCIATES

FIGURE D.2
Well Search Area
and New Well Registrations

APPENDIX D.1

IMAGED RECORDS

Original upload for Registry: 55-234101

Record updated: **3/23/2021**

--- The document starts on the next page. ---

Run Date: 03/23/2021

AZ DEPARTMENT OF W/

55-234101

WELL REGISTRY REP(

Well Reg.No

Location D 24.0 24.0 18 C B B **55 -** 234101 **AMA** NOT WITHIN ANY AMA OR INA

Registered Name JAMES TERRY
PO BOX 522
NACO AZ 85620

File Type NEW WELLS (INTENTS OR APPLICATIONS)
Application/Issue Date 03/17/2021

Owner OWNER
Driller No. 133
Driller Name TANNER WELL SERVICE, LLC
Driller Phone 520-378-1606
County COCHISE
Parcel No. 102-57-307E
Intended Capacity GPM 0.00

Well Type EXEMPT
SubBasin SIERRA VISTA
Watershed SAN PEDRO RIVER
Registered Water Uses DOMESTIC
Registered Well Uses
Discharge Method NO DISCHARGE METHOD LISTED
Power NO POWER CODE LISTED

Well Depth	0.00	**Case Diam**	0.00	**Tested Cap**	0.00
Pump Cap.	0.00	**Case Depth**	0.00	**CRT**	
Draw Down	0.00	**Water Level**	0.00	**Log**	
		Acres Irrig	0.00	**Finish**	NO CASING CODE LISTED

Contamination Site: YES - WITHIN 1/2 MI OF VRP

Tribe: GRIC Maintenance area

Comments

Current Action

3/23/2021 555 DRILLER & OWNER PACKETS MAILED
Action Comment: ism

Action History

3/23/2021 940 NOI/APP SENT TO ADEQ AND/OR EPA FOR REVIEW
Action Comment: ism

3/23/2021 945 REVIEW OF NOI/APP RECEIVED FROM ADEQ AND/OR EPA
Action Comment: ism

3/23/2021 550 DRILLING AUTHORITY ISSUED
Action Comment: ism

3/17/2021 150 NOI RECEIVED FOR A NEW PRODUCTION WELL
Action Comment: ism

3/8/2021 210 COUNTY HEALTH AUTHORITY ENDORSED
Action Comment: ism

ARIZONA DEPARTMENT OF WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

NOTICE! This well is located in or near an area of groundwater contamination (WQARF/CERCLA/DOD or Other). Be advised that **special requirements may apply**.

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-234101**

AUTHORIZED DRILLER: **TANNER WELL SERVICE, LLC** LICENSE NO: **133**

NOTICE OF INTENTION TO DRILL EXEMPT WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **JAMES TERRY PO BOX 522 NACO, AZ, 85620**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

NW 1/4 of the **NW** 1/4 of the **SW** 1/4 Section **18** Township **24.0 SOUTH** Range **24.0 EAST**

NO. OF WELLS IN THIS PROJECT: ASSESSOR'S PARCEL NO: **102-57-307E**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **March 23, 2022**

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.

NOTICE! The Authorization to drill this well **DOES NOT constitute or guarantee an approval to use the well** for the purpose of withdrawing groundwater **for transportation to an Active Management Area (AMA)** pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) **without official prior approval from the Department.**

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

March 23, 2021

JAMES TERRY
PO BOX 522
NACO, AZ 85620-0522

DOUGLAS A. DUCEY
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 234101
File Number: D(24-24) 18 CBB

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Groundwater Permitting and Wells Section

Arizona Department of Water Resources
Groundwater Permits and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 • Fax (602) 771-8689

Received
MAR 17 2021
Arizona Department of Water Resources

Notice of Intention to Drill, Deepen, Replace or Modify a Well

(except a Non-Exempt Well in an Active Management Area)

$150 or $100 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - Check or money order in the amount of the appropriate filing fee.
  - For a well located within an AMA or INA, the fee is $150.00.
  - For a well not located within an AMA or INA, the fee is $100.00 if the well will be used solely for domestic purposes (see page 2 and instructions) and will have a pump with a maximum capacity of not more than 35 gallons per minute. Otherwise, the fee is $150.00.
- Shared wells: While Arizona water law governs how a well subject to a well sharing agreement is to be drilled and located, it DOES NOT govern the operation or management of a well sharing agreement.
- Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

TO BE COMPLETED BY ADWR

AMA/INA	B	SB	FILE NUMBER
RECEIVED DATE	WS		WELL REGISTRATION NUMBER 55- 234101
ISSUED DATE	REMEDIAL ACTION SITE		
LEGAL REVIEW IF APP	REASONING		

☐ FILING MANUALLY

☐ FILING ELECTRONICALLY *(driller's email required)*

SECTION 1. COUNTY OR LOCAL HEALTH AUTHORITY APPROVAL *(if applicable)*

If water from the proposed well will be used for domestic purposes on a parcel of land of 5 or fewer acres, the applicable county or local health authority must endorse all items in Section 1 within one year before submission to the Department of Water Resources. You must also attach a site plan (pg. 3).

CHECK ONE

☒ County or Local Health Authority Recommends Approval (pursuant to A.R.S. § 45-596 (G) and (F))
- ☒ Field Inspection Performed
- ☐ Site Plan Review Only

☐ Insufficient Information to Make a Determination – If checked, please submit supplemental form 55-40C. A.R.S. § 45-596 (G) and (F)

Official County or Local Seal or Stamp

APPROVED

COUNTY OR LOCAL AUTHORITY NAME AND TITLE: MICHAEL McGee RS

TELEPHONE NUMBER: 520 586 8206

DATE: 3/8/21

COUNTY OR LOCAL AUTHORITY SIGNATURE:

SECTION 2. REGISTRY INFORMATION

To determine the place of water use and location of well, please refer to the Well Registry Maps and Google Earth at: ( ) and ( )

Well Type

CHECK ONE

☒ Exempt (Pump has a maximum capacity of not more than 35 gpm and water is not used for irrigation purposes inside an AMA.) *(See instructions)*

☐ Non-Exempt (Pump has a maximum capacity of more than 35 gpm and the well is located outside an AMA.) *(See instructions)*

DESIGN PUMP CAPACITY: 12 Gallons Per Minute

Proposed Action

CHECK ONE

☒ Drill New Well
☐ Deepen
☐ Replace
☐ Modify

If Deepening, Replacing or Modifying:

ORIGINAL WELL REGISTRATION NUMBER: 55-

MAXIMUM CAPACITY OF ORIGINAL WELL: Gallons Per Minute

DISTANCE & DIRECTION FROM ORIGINAL WELL: Feet

Location of Well

WELL LOCATION ADDRESS (IF ANY): 2125 N. VELEDA ST

COUNTY WHERE WELL IS LOCATED: COCHISE

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24S	24E	18	SW ¼	NW ¼	NW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARCEL	# OF ACRES
102	57	3076	0.79

EXPECTED LATITUDE: 31 ° 30 ' 34.74 " N (Degrees, Minutes, Seconds)

EXPECTED LONGITUDE: 109 ° 57 ' 9.12 " W (Degrees, Minutes, Seconds)

Place of Water Use *(Mandatory information, see instructions)*

Is the groundwater basin where the well will be drilled the same as the place where the water will be used? ☒ Yes ☐ No

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24S	24E	18	SW ¼	NW ¼	NW ¼

SECTION 3. OWNER INFORMATION

Land Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: JAMES TERRY

MAILING ADDRESS: PO BOX 522

CITY / STATE / ZIP CODE: NACO AZ 85620-0522

CONTACT PERSON NAME AND TITLE: JAMES TERRY OWNER

TELEPHONE NUMBER: 310-922-6655

FAX:

Well Owner *(check this box if Land Owner and Well Owner are same ☑)*

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL:

MAILING ADDRESS:

CITY / STATE / ZIP CODE:

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER:

FAX:

1 SM

Notice of Intent to Drill, Deepen, Replace or Modify a Well

WELL REGISTRATION NUMBER
55 -

SECTION 4.

Questions	Yes	No	If Yes:
1. Is the proposed well site within 100 feet of a septic tank system, sewer disposal area, landfill, hazardous materials or petroleum storage area or tank?	☐	☒	You must also request a variance *(A.A.C. R12-15-818)*.
2. Is there another well name or identification number associated with this well *(e.g., Lot 35 Well, Smith Well, etc.)*?	☐	☒	*(please state)*
3. Is the proposed well a NEW well to be located within an Active Management Area? *(See instructions)*	☐	☒	You must also file a supplemental form 55-40A, unless the well is a replacement well and the total number of operable exempt wells on the land is not increasing. *A.R.S. § 45-454(C) & (D)*
4. Is the proposed well the second exempt well on this parcel for the same use?	☐	☒	You must also file a supplemental form 55-40B, if the proposed well is in an Active Management Area. A.R.S. § 45-454(I)

SECTION 5. DRILLING AUTHORIZATION

Drilling Firm

NAME	Tanner Well Service, LLC		
DWR LICENSE NUMBER	133	ROC LICENSE CATEGORY	A-4 295831 R-53 182725
TELEPHONE NUMBER	520-378-1606	FAX NUMBER	520-803-7400
MAILING ADDRESS	P.O. Box 2234		
CITY / STATE / ZIP CODE	Sierra Vista, AZ 85636		
DRILLERS EMAIL	tannerwell@gmail.com		
DATE CONSTRUCTION IS SCHEDULED TO BEGIN	MARCH 2021		

SECTION 6. WATER / SITE INFORMATION

Principal Use of Water (CHECK ONE)

- ☐ Irrigation*
- ☐ Commercial
- ☑ Domestic
- ☐ Municipal
- ☐ Industrial
- ☐ Stock
- ☐ Remediation
- ☐ Dewatering
- ☐ Other *(please specify)*:

Other Uses of Water (CHECK ALL THAT APPLY)

- ☐ Irrigation
- ☐ Commercial
- ☐ Domestic
- ☐ Municipal
- ☐ Industrial
- ☐ Stock
- ☐ Remediation
- ☐ Dewatering
- ☐ Other *(please specify)*:

Reset Other Water Uses

Pursuant to ARS § 45-402(23) Irrigation is defined as applying water to two or more acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry.

NOTE: If this is a Notice of Intent to construct a new well that will be used for the purpose of withdrawing groundwater for transportation to an Active Management Area *(AMA)* pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A), the authorization to drill the well issued in association with this Notice **shall not be considered the approval to transport groundwater to an AMA.** *(See instructions)*

SECTION 7. PROPOSED WELL CONSTRUCTION DESIGN *(attach separate sheet if needed)*

Borehole			Casing														
DEPTH FROM SURFACE			DEPTH FROM SURFACE			MATERIAL TYPE (T)				PERFORATION TYPE (T)						
FROM *(feet)*	TO *(feet)*	BOREHOLE DIAMETER *(inches)*	FROM *(feet)*	TO *(feet)*	OUTER DIAMETER *(inches)*	STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	GROUTING MATERIAL
0	20	12	+1	20	8 5/8	X*										CEMENT
20	400	8	0	300	6.63		X			X						
			300	400	6.63		X							X		

** ADWR well construction standards require a surface seal consisting of a minimum of 20 feet of steel casing. Cement grout must be used to fill the annular space between the surface casing and the borehole. (A.A.C. R12-15-811(B))*

The Department's issuance of an authorization to drill a well is not a determination of whether water withdrawn from the well is legally surface water or groundwater. The legal nature of the water withdrawn from the well may be the subject of court action in the future as part of a determination of surface water rights in your area. If there are court proceedings that could affect your well, you will be notified and be given the opportunity to participate. If you have questions regarding the legal nature of the water to be withdrawn from your proposed well, please consult with an experienced civil engineer, hydrologist or water rights attorney.

For the purposes of determining appropriate fees outside AMAs or INAs, "domestic purposes" is defined as "uses related to the supply, service and activities of households and private residences and includes the application of water to less than 2 acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry, as such terms are defined in A.R.S. § 3-1201."

Notice of Intent to Drill, Deepen, Replace or Modify a Well

WELL REGISTRATION NUMBER
55 -

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. Advance notice can be provided. *(See instructions)*

SECTION 9. WELL SITE PLAN

- If this well will be a domestic well on 5 acres or less, please draw the following: (1) the boundaries of your property; (2) the proposed well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well. If the parcel is vacant land or lacks a septic tank or sewer system, please indicate this.
- Indicate the distance between the proposed well location and any septic tank system or sewer system.

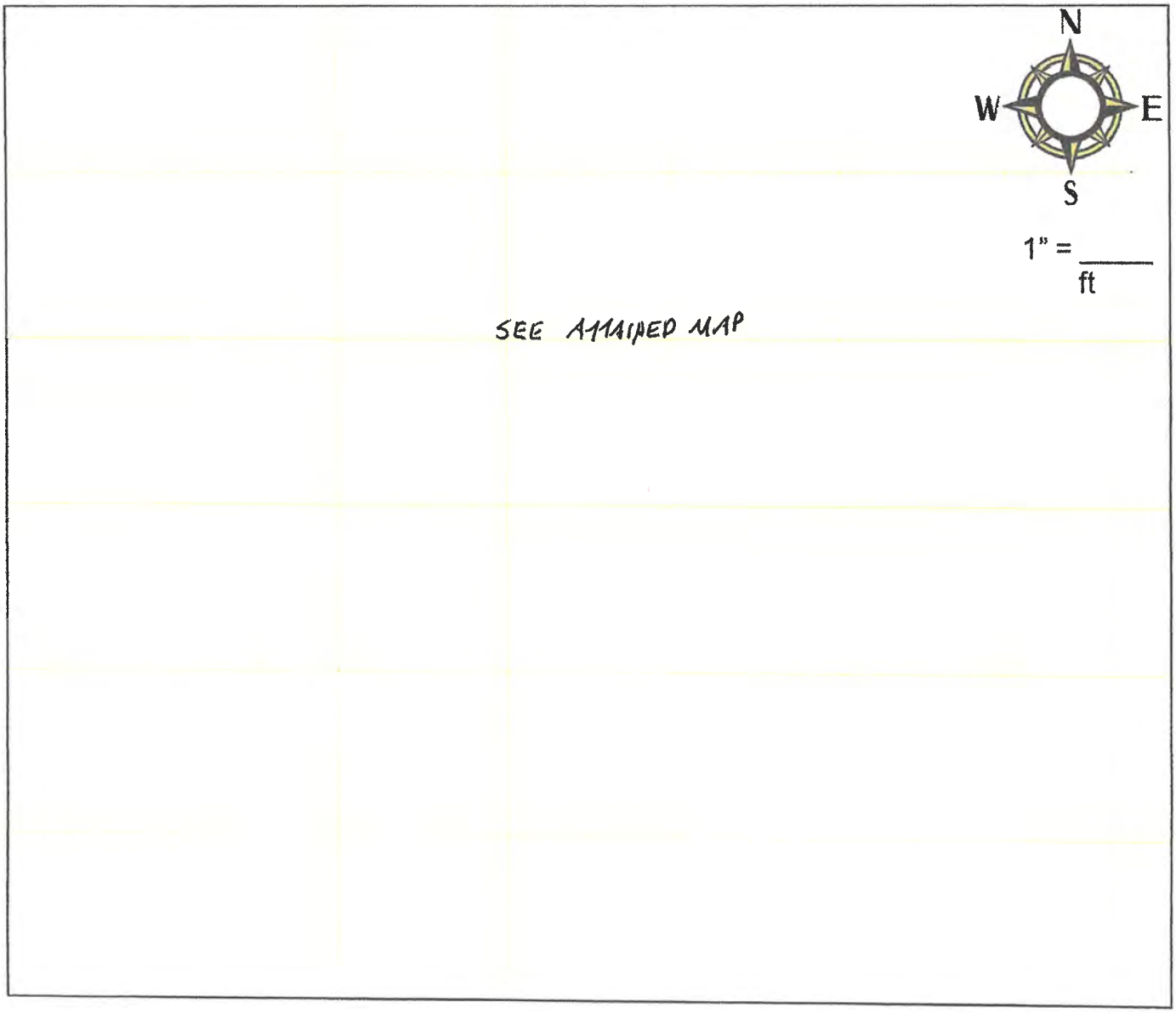
County Assessor's ID# _____ - _____ - _____

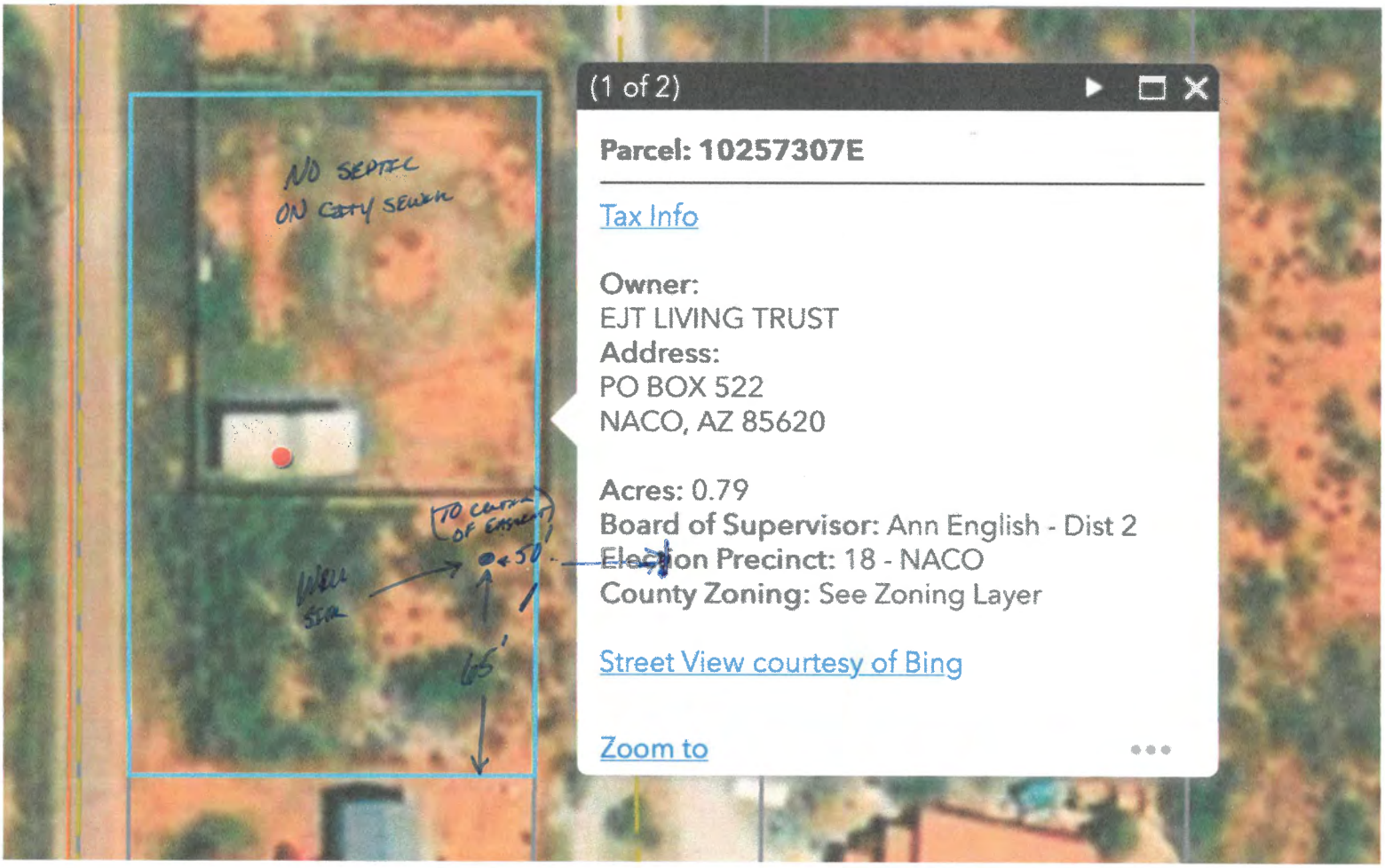
COUNTY OR LOCAL HEALTH AUTHORITY APPROVAL CODE	COUNTY APPROVAL CODE
If applicant is filing this NOI electronically via the ADWR website and County approval is required, please indicate approval by providing a County Approval Code.	

SECTION 10. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

Land Owner	Well Owner *(if different from Land Owner; See instructions)*
PRINT NAME AND TITLE: JAMES TERRY Trustee EJT TRUST	PRINT NAME AND TITLE
SIGNATURE OF LAND OWNER: [signature]	SIGNATURE OF WELL OWNER
DATE: Feb 3, 2021	DATE
☐ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☐ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS	EMAIL ADDRESS




NO SEPTIC
ON CITY SEWER
(1 of 2)
Parcel: 10257307E
Tax Info
Owner:
EJT LIVING TRUST
Address:
PO BOX 522
NACO, AZ 85620
Acres: 0.79
Board of Supervisor: Ann English - Dist 2
Election Precinct: 18 - NACO
County Zoning: See Zoning Layer
Street View courtesy of Bing
Zoom to

Printed: 3/18/2021 10:13:30 AM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:

TANNER WELL SERVICE, LLC
PO BOX 2234
SIERRA VISTA, AZ 85636

Receipt #: 21-79954
Office: MAIN OFFICE
Receipt Date: 03/18/2021
Sale Type: IN_PERSON
Cashier: WRAGT

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
67489	122221	4439-TT	Notice of intention to drill a well that will not be located in an active management area or irrigation non-expansion area, that will be used solely for domestic purposes and that will have a pump with a maximum capacity of not more than 35 gallons per mi	234101	1	100.00	100.00
						RECEIPT TOTAL:	**100.00**

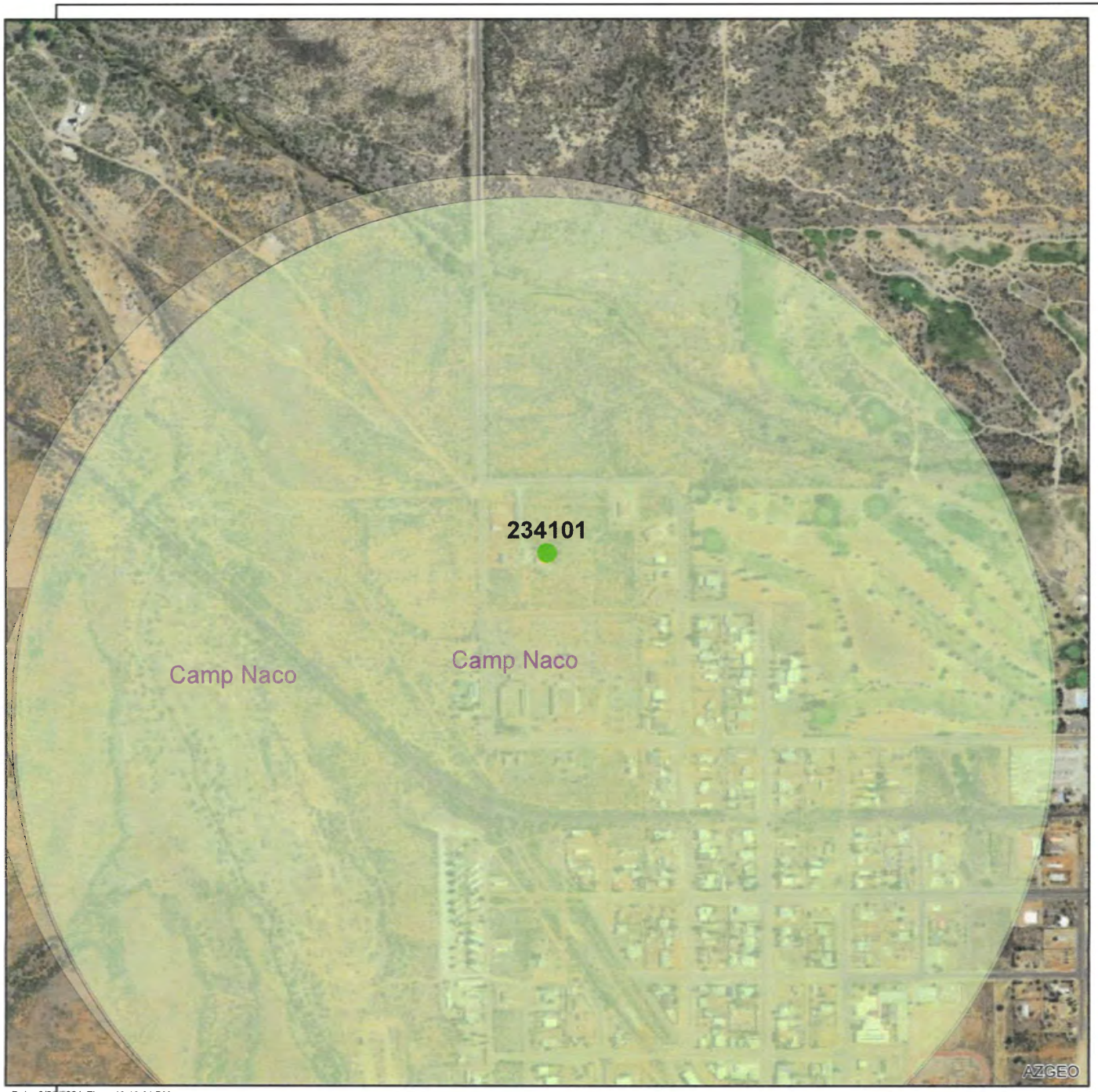
Payment type: CHECK
Amount Paid: $100.00
Payment Received Date: 03/18/2021

Check # 9327

Notes: FROM TTA.

No refund without valid receipt

Well Location
55-234101
Cochise County, AZ



Legend

- Subject Well(s)
- Remedial Action Site Buffer (2017)
- LIB.VRP_Buffer

Feet

0 560 1,120 1,680

Date: 3/23/2021 Time: 12:18:01 PM
Document Path: C:\Users\ismith\Desktop\WellImpact_TEMPLATE_1.mxd

N

Coordinate System: NAD 1983 UTM Zone 12N
Projection: Transverse Mercator
Datum: North American 1983