J&T Consulting, Inc.

July 25, 2024

Mr. Brock Bowles
Environmental Protection Specialist
State of Colorado
Division of Reclamation, Mining, and Safety
Physical Address:
1313 Sherman Street, Room 215
Denver, CO 80203
Mailing Address:
Division of Reclamation, Mining and Safety, Room 215
1001 East 62nd Avenue
Denver, CO 80216

RE: Ogilvy River Farm Pit (Permit No. M-2024-006)
Adequacy Review #2

Dear Mr. Bowles,

Ogilvy River Farm, LLC has received the Division's Adequacy Review #2 letter dated June 28, 2024. Below are the comments and the corresponding responses that we have provided to address the comments.

Comments

6.4.4 Exhibit D - Mining Plan

1. Adequate as submitted.

Response: Acknowledged.

2. The 1,146,176 cy of backfill material to reclaim the slopes from 2h:1v to 4.5h:1v will come from the overburden material. Will a stockpile be set aside containing this volume of material? Will the 2v:1h slopes be contemporaneously backfilled as the mining highwall advances?

Response: The backfill material will come from the overburden and clay that is at the site. Portions of the material will be stockpiled but the stock piled materials will be placed as mining occurs. The maximum linear footage of mining slope will be 1,500 feet and the reclamation will occur on the maximum linear footage prior to mining additional area. The volume of material for this length of slope is 340,350 CY.

6.4.7 Exhibit G – Water Information

5. Adequate as submitted.

Response: Acknowledged.

6. Adequate as submitted.

Acknowledged.

7. The operator committed to monitoring all wells for inclusion of establishing baseline information in the June 1 adequacy review response. However, the text in Exhibit G was not updated to reflect this change and no additional data was submitted.

Response: The revised Exhibit G is attached. The old attachment was included in the last adequacy review response.

8. The results also show that the water tested was not filtered as required by Reg. 41. Benchmark concentrations for metals listed in Reg. 41 are for dissolved metal concentrations, not total metals. Therefore, the results provided from November 17, 2023, are not suitable for comparison to the standards in Reg. 41 and will not contribute to the necessary 5 consecutive quarters of required testing to establish baseline.

Response: The SGS samples were filtered for the dissolved metals testing. See updated information from SGS regarding the samples.

9. The Division suggests that to better establish baseline the Operator should sample all four monitoring wells for a minimum of 5 consecutive quarters and have the samples filtered as required before testing for the specified analytes from Tables 1-4 of Reg. 41.

Response: The operators plan has been updated and all monitor wells will be included for establishing the baseline information. When obtaining a monitor well sample typically at least 3 well volumes will be taken from the well to make sure a true groundwater sample is obtained. During the purging time, measuring pH, temperature, EC will occur at different times until stabilization occurs. Then the sample will be collected and placed in the lab provided bottle(s) for unfiltered samples. The sample will then be filtered prior to placement into the lab bottle(s) for SGS to run the testing on for the dissolved metals from Table 41. Sampling and collection of the groundwater from the monitor wells will reference the USGS National Field Manual for Collecting Water Quality Data Chapter A.4 Collection of Water Quality Samples and EPA Region 9 Groundwater Sampling Guide. The plan has been updated to include the process discussed in the response to Comment 10 below for collection of the samples.

10. Adequate as submitted.

Response: Acknowledged.

11. Adequate as submitted.

Response: Acknowledged.

12. The Operator should clarify if the samples are filtered in the lab by SGS Laboratories.

Response: The updated information is included from SGS clarifying the samples thus far were filtered for the dissolved metals testing. The operator's plan has been updated where the samples will be filtered in the field prior to delivery of the samples to SGS laboratories.

13. Adequate as submitted.

Response: Acknowledged.

6.4.12 Exhibit L – Reclamation Costs

16. A cost estimate was not completed at this time because a significant amount of information needed to complete an estimate was requested in this adequacy review. A cost estimate will be completed when the information is received, and J&T Consulting will have an opportunity to review/comment on it.

Response: Acknowledged.

Ogilvy River Farm, LLC appreciates your consideration of this adequacy review response.

Please feel free to contact me with any questions or comments.

Sincerely,

J.C. York, P.E.
J&T Consulting, Inc.

Attachments:
1. Updated Exhibit G
2. Updated Groundwater Quality Testing Readings

EXHIBIT G

Water Information

Introduction

The Ogilvy River Farm Pit mining site is located in the Southeast ½ of the Southeast ¼ of Section 5, Township 5 North, Range 64 West of the 6th Principal Meridian and the Northeast ¼ of the Northeast ¼ of Section 8, Township 5 North, Range 64 West of the 6th Principal Meridian, in Weld County, Colorado. The proposed mining site is located approximately 1,500 feet south of WCR 60½, is adjacent to WCR 53 on the side, and is adjacent to the South Platte River on the south side of the site. WCR 53 is immediately adjacent to the east side of the permit boundary and the South Platte River is immediately adjacent to the south side of the permit boundary. Access to the site will be located at the east side of the permit boundary off of WCR 53. The dominant land use surrounding the property is agricultural and industrial. The operation will consist of sand and gravel production and will not impact the South Platte River in the form of depletions due to a slurry wall that will be installed prior to mining. Mining of the Ogilvy River Farm Pit site will last for approximately 5 years and 6 months. Once reclamation is complete, the water storage reservoir will be created with a total surface area being 37.63 acres.

The depth to groundwater ranges from 3 to 24 feet within the permit boundary (measured in MW-1 through MW-4, See the attached piezometer measurements table). The site will be mined down to a depth of 68 to 85 feet thus exposing groundwater to the atmosphere. This exposed groundwater, along with the operational losses associated with the extraction of sand and gravel deposits, will impact the South Platte alluvial aquifer. These impacts will cause river depletions that must be augmented. Groundwater will be exposed during the mining once the mining depths reach an elevation of approximately 4581 feet.

To enable dry mining at the Ogilvy River Farm Pit mining site, there will be dewatering trenches around the bottom of the mining slope. These dewatering trenches will change in length throughout mining. The maximum length will occur when the cell is completely mined, but before the reclamation has begun. The maximum size of dewatering trench will be 6,500 feet long and 5 feet wide, or 0.75 acres of exposed surface area. The water will be pumped into dewatering ditch, which traverses the site and ultimately into the South Platte River.

As mining progresses, the dewatering trenches will shift to account for additional groundwater being exposed. The gravel pit will have a slurry wall liner constructed prior to the commencing of mining.

Water Requirements

Water use at the Ogilvy River Farm Pit mining site will include evaporation from exposed groundwater, dust control of haul roads and stockpiles, water for the wash plant (i.e. wash screen for concrete rock and sand) and water retained in material removed from the site.

Evaporative Loss

Evaporative losses are dependent on the exposed water surface area, which may shift throughout the mining operation, but will not exceed the maximum. Exposed surface area at the Ogilvy River Farm Pit mining site will include groundwater exposed in the dewatering trenches.

The maximum exposed surface area at the site during mining is estimated at 0.75 acres. Ogilvy River Farm, LLC plans to keep the site dewatered throughout the life of the mine.

Evaporation data was taken from NOAA Technical Report NWS 33, Evaporation Atlas for the 48 Contiguous United States. The annual gross evaporation was determined to be 45 inches for this location. Monthly evaporation percentages are established by guidelines set by the State Engineer's Office. To determine precipitation, data from the National Weather Service for Greeley, CO (UNC) (1967-2023) was used. The long-term average precipitation at the Ogilvy River Farm Pit mining site is estimated at 14.26 inches. Effective precipitation is calculated as 70% of the total precipitation. The net evaporation is the difference between gross annual evaporation and effective precipitation. The resulting net evaporation is 35.02 inches or 2.92 feet.

The maximum annual evaporative loss from the 0.75 acres is 2.19 ac-ft.

Operational Loss

The average annual production from the Ogilvy River Farm Pit mining site is estimated at 650,000 tons. Using 4% moisture content, (2% for moisture in the product and 2% for water used to wash), the total associated consumptive use for water retained in the material mined and water used for washing is 19.1 ac-ft.

Dust control use is 10,000 gal/day, 6 days/week, 4 weeks/month for 10 months of the year. This equates to 7.4 ac-ft.

Maximum annual operational loss is estimated to be 26.5 ac-ft.

Consumptive Use

The maximum annual consumptive use (operational loss + evaporation loss) at this site during the mining operation is estimated to be 28.69 ac-ft.

Replacement Water

The replacement of consumptive uses at the site will be accounted for in a substitute water supply plan (SWSP) approved by the State Engineer. The SWSP will be obtained prior to any mining activities occurring that expose groundwater.

Surrounding Water Rights

The attached Figure 1 Well Permits in the Ogilvy River Farm Pit – Groundwater Evaluation by McGrane Engineering, LLC shows the permitted wells within 600 feet of the mining limits and permitted wells within the boundaries of the groundwater model/evaluation. The well information and locations were obtained from the Division of Water Resources online mapping well permit locator. This well and water rights information was cross checked with the State's CDSS. Between the sources, all permitted and decreed wells are included. Table G-1 below is a corresponding list of wells as numbered in the Ogilvy River Farm Pit – Groundwater Evaluation by McGrane Engineering, LLC that is attached that are within 600 or more feet of the mining limits that were within the 1 to 3 foot mounding area on the north and east side of the pit.

Table G-1 - Permitted and Decreed Wells Within 600 Feet or Area of 1-3 foot mounding not owned by Ogilvy River Farm, LLC								
Map ID	**Permit No**	**Structure ID**	**Well Name**	**Owner**	**Address**	**City**	**State**	**Zip Code**
1	11749		Domestic Well	John Sitzman	Route 4 Box 156	Greeley	CO	80631
2	126287		Domestic Well	Martin Cabrera Orozco	26347 CR 60½	Greeley	CO	80631
3	127910		Domestic Well	Charles L. and Lorene Achziger	29358 Hwy 37	Greeley	CO	80631
4	127911		Domestic Well	William and Jaimi Carlsen	26358 CR 60½	Greeley	CO	80631
5	126291-A		Domestic Well	Rodger and Beth Short	26333 CR 60½	Greeley	CO	80631
6	13379 - R	0105430 - Achziger Well - 13379	Achziger Well 13379	Steven A. and Loann Zehnder	2365 CR 23	Fort Lupton	CO	80621
7	13968 - R	0105276 – Pfeif Well 1 - 13968	Pfeif Well 1 - 13968	Church of Jesus Christ of Latter-Day Saints	139 E S Temple St Ste 110	Salt Lake City	UT	84111-1103
8	55039-F	0106353 - Donily Well 1	Donily Well #1	Arluducyn Land, LLC	P.O. Box 97	Kersey	CO	80644
9	6383 - R	0105429 - Achziger Well #1-6383	Achziger Well #1-6383	Charles and Mary Achziger	Route 1 Box 163	Greeley	CO	80631

At the time of SWSP application/approval, a new gravel pit well permit will be applied for/obtained to include the evaporative and operational losses from the property. If the proposed use of groundwater at the Ogilvy River Farm Pit mining site results in material injury to surrounding wells, Ogilvy River Farm, LLC will ensure that all necessary measures are taken to address the issues.

Water Quality

An NPDES permit will be obtained from the Water Quality Control Division at the Colorado Department of Public Health & Environment for the Ogilvy River Farm Pit mining site prior to discharging any groundwater that is dewatered from the site. This permit will be kept current and amended as necessary to ensure that any water discharged from the site will meet the permitted water quality standards.

Impacts to Groundwater/Hydrologic Balance

Ogilvy River Farm, LLC will monitor the groundwater levels surrounding the site and provide groundwater recharge if necessary via perimeter ditches/ponds. Ogilvy River Farm, LLC will construct these ditches/ponds in the locations where direct discharge to an existing adjacent irrigation lateral is not available to ensure that stabilized groundwater levels are maintained. They will discharge dewatering flows into existing adjacent irrigation laterals where possible to limit the disturbance to the surrounding land. A slurry wall liner is proposed around the mine and will likely be installed prior to the mining starting.

To summarize the mitigation process, as the mining/dewatering occurs, Ogilvy River Farm, LLC will monitor the groundwater levels adjacent to mine as the mining progresses. If groundwater levels drop to a level that prevents an adjacent well from performing acceptably, according to that well's owner, Ogilvy River Farm, LLC will either implement a groundwater recharge ditch/pond near the well in order to raise the groundwater level in the vicinity of the well and hence return it's operation to acceptable standards, or will negotiate an agreement with that well owner to replace the well or provide replacement water via other means until the mining and reclamation activities are concluded but it is not anticipated that any groundwater levels will drop since the slurry wall will be installed prior to exposing groundwater.

Groundwater wells that are not owned by Ogilvy River Farm, LLC are potentially located within 600 feet of the mining limits. The exact physical location of these wells will be determined during the SWSP and well permit application processes. If wells are found to be within 600 feet of the mining limits, Ogilvy River Farm, LLC will either obtain a well waiver from the owner of the well, or provide an agreement with the well owner that Ogilvy River Farm, LLC will mitigate and material damage to the well that is directly attributable to the mining and reclamation of the site.

All other wells within 600 feet of the mining limits are either owned by Ogilvy River Farm, LLC, or are monitoring wells therefore groundwater impacts to these wells do not need to be addressed.

See the attached Piezometer Location Map, and Piezometer Data Summary, which show the locations of monitoring wells around the perimeter of the site that Ogilvy River Farm, LLC has either installed or has access to, and the groundwater level data that has been collected for each well. The groundwater monitoring data will be provided for what has been done to date with this permit application and then submitted in the annual report for the pit to the DRMS after approval of the permit application.

Groundwater Quality Monitoring Plan

The majority of the mining operations at this site will be within the slurry wall lined area. The areas outside of the slurry wall will be limited to the scale house and haul roads for trucks coming into and out of the pit, which are not likely to affect groundwater quality.

To establish pre-mining groundwater quality at the site Ogilvy River Farm, LLC will have four monitor wells sampled quarterly. The samples will be taken by a qualified consultant and then tested by SGS Laboratories for the analytes listed in Tables 1-4 of the "Basic Standards for Groundwater."

Once the baseline has been established, we would recommend annual sampling to monitor the groundwater quality and a technical revision will be submitted to request the change.

The quarterly sampling will continue until 5 quarters of data has been established. Once the baseline has been established, we would recommend annual sampling to monitor the groundwater quality and a technical revision will be submitted to request the change.

Ogilvy River Farm, LLC commits to establishing points of compliance following five quarters of baseline monitoring. Monitor Well 1 located on the west side of the permit boundary will be used as a background water quality sampling location and the remaining three monitoring wells as points of compliance (POC), the POCs will be Monitor Wells 2, 3, and 4.

When obtaining a monitor well sample typically at least 3 well volumes will be taken from the well to make sure a true groundwater sample is obtained. During the purging time, measuring pH, temperature, EC will occur at different times until stabilization occurs. Then the sample will be collected and placed in the lab provided bottle(s) for unfiltered samples. The sample will then be filtered prior to placement into the lab bottle(s) for SGS to run the testing on for the dissolved metals from Table 41. Sampling and collection of the groundwater from the monitor wells will reference the USGS National Field Manual for Collecting Water Quality Data Chapter A.4 Collection of Water Quality Samples and EPA Region 9 Groundwater Sampling Guide.

The groundwater quality sampling data will be provided for what has been done to date with this permit application/adequacy review. and then submitted in the quarterly report for the pit to the DRMS after approval of the permit application. Ogilvy River Farm, LLC will notify the DRMS within 7 days of receiving a lab report that indicates any of the standards set forth in Tables 1-4 have been exceeded. If a lab report shows an exceedance, a new sample will be taken to verify exceedance or discount potential lab contamination.

The groundwater quality testing data will be provided for what has been done to date with this permit application/adequacy review and then submitted at the following frequency to the DRMS:

First quarter report due by May 1st of every year.
Second quarter report due by August 1st of every year.
Third quarter report due by November 1st of every year.
Fourth quarter report due by February 1st of the following year.

The report will include a site map with well locations, tabulated data for all parameters, graphs/plots of selected parameters, a narrative analysis of the data with any trends and/or anomalies identified, and graphs and tables of measured groundwater levels for all locations. The field sheets will be included in an appendix that demonstrates monitoring wells were purged and sampled according to the approved plan.

Report of Analysis

Client Sample ID:	OGILVY RIVER FARM PIT (MW-1)		
Lab Sample ID:	DA62542-1	**Date Sampled:**	03/01/24
Matrix:	AQ - Ground Water	**Date Received:**	03/01/24
		Percent Solids:	n/a
Project:	Material Sites WQ Testing		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
9056A							
Fluoride	0.35	0.20	mg/l	2	03/01/24 20:49	MB	SW846 9056A
Chloride	167	5.0	mg/l	10	03/01/24 21:03	MB	SW846 9056A
Nitrogen, Nitrite [a]	< 0.20	0.20	mg/l	50	03/02/24 16:32	MB	SW846 9056A
Nitrogen, Nitrate	11.9	0.50	mg/l	50	03/02/24 16:32	MB	SW846 9056A
Sulfate	443	25	mg/l	50	03/02/24 16:32	MB	SW846 9056A
9056A NO2 + NO3O							
Nitrogen, Nitrate + Nitrite [b]	11.9	0.70	mg/l	1	03/02/24 16:32	MB	SW846 9056A
Solids, Total Dissolved	1380	10	mg/l	1	03/04/24 07:00	JW	SM 2540C-2011

(a) Elevated detection limit due to matrix interference.
(b) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OGILVY RIVER FARM PIT (MW-1)		
Lab Sample ID:	DA62542-1F	**Date Sampled:**	03/01/24
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/01/24
		Percent Solids:	n/a
Project:	Material Sites WQ Testing		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 100	100	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Arsenic	< 25	25	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Barium	59.0	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Boron	253	50	ug/l	1	03/12/24	03/19/24	CDL	SW846 6010C [3]	SW846 3010A [4]
Cadmium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 5.0	5.0	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Iron	< 70	70	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Lead	< 50	50	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Manganese	119	5.0	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.10	0.10	ug/l	1	03/13/24	03/13/24	CDL	SW846 7470A [1]	SW846 7470A [5]
Molybdenum	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Nickel	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 50	50	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Uranium	52.4	50	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA17745
(2) Instrument QC Batch: MA17751
(3) Instrument QC Batch: MA17763
(4) Prep QC Batch: MP39056
(5) Prep QC Batch: MP39057

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OGILVY RIVER FARM PIT (MW-1)		
Lab Sample ID:	DA62542-1FC	**Date Sampled:**	03/01/24
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/01/24
		Percent Solids:	n/a
Project:	Material Sites WQ Testing		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lithium [a]	80.4	10	ug/l	1	03/07/24	03/08/24	ALA	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: L:MA27325
(2) Prep QC Batch: L:MP27849

(a) Analysis performed at SGS Scott, LA.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OGILVY RIVER FARM PIT (MW-4)		
Lab Sample ID:	DA62542-2	**Date Sampled:**	03/01/24
Matrix:	AQ - Ground Water	**Date Received:**	03/01/24
		Percent Solids:	n/a
Project:	Material Sites WQ Testing		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
9056A							
Fluoride	0.21	0.20	mg/l	2	03/01/24 21:17	MB	SW846 9056A
Chloride	89.6	5.0	mg/l	10	03/01/24 21:31	MB	SW846 9056A
Nitrogen, Nitrite [a]	< 0.0080	0.0080	mg/l	2	03/01/24 21:17	MB	SW846 9056A
Nitrogen, Nitrate	11.7	0.50	mg/l	50	03/02/24 16:46	MB	SW846 9056A
Sulfate	454	25	mg/l	50	03/02/24 16:46	MB	SW846 9056A
9056A NO2 + NO3O							
Nitrogen, Nitrate + Nitrite [b]	11.7	0.51	mg/l	1	03/02/24 16:46	MB	SW846 9056A
Solids, Total Dissolved	1170	10	mg/l	1	03/04/24 07:00	JW	SM 2540C-2011

(a) Elevated detection limit due to matrix interference.
(b) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OGILVY RIVER FARM PIT (MW-4)		
Lab Sample ID:	DA62542-2F	**Date Sampled:**	03/01/24
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/01/24
		Percent Solids:	n/a
Project:	Material Sites WQ Testing		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	< 100	100	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Antimony	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Arsenic	< 25	25	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Barium	24.2	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Beryllium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Boron	260	50	ug/l	1	03/12/24	03/19/24	CDL	SW846 6010C [3]	SW846 3010A [4]
Cadmium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Cobalt	< 5.0	5.0	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Copper	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Iron	< 70	70	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Lead	< 50	50	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Manganese	47.4	5.0	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Mercury	< 0.10	0.10	ug/l	1	03/13/24	03/13/24	CDL	SW846 7470A [1]	SW846 7470A [5]
Molybdenum	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Nickel	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Selenium	< 50	50	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Silver	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Thallium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Uranium	52.7	50	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Vanadium	< 10	10	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]
Zinc	< 30	30	ug/l	1	03/12/24	03/14/24	CDL	SW846 6010C [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA17745
(2) Instrument QC Batch: MA17751
(3) Instrument QC Batch: MA17763
(4) Prep QC Batch: MP39056
(5) Prep QC Batch: MP39057

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OGILVY RIVER FARM PIT (MW-4)		
Lab Sample ID:	DA62542-2FC	**Date Sampled:**	03/01/24
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/01/24
		Percent Solids:	n/a
Project:	Material Sites WQ Testing		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lithium [a]	36.7	10	ug/l	1	03/07/24	03/08/24	ALA	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: L:MA27325
(2) Prep QC Batch: L:MP27849

(a) Analysis performed at SGS Scott, LA.

RL = Reporting Limit

Metals Analysis

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	46	15	1.4	<100
Antimony	30	14	6.8	-9.9	<30
Arsenic	25	22	4.6	3.1	<25
Barium	10	.3	1.3	-0.10	<10
Beryllium	10	1	1.3	0.0	<10
Boron	50	3.3	6.3	-3.9	<50
Cadmium	10	1.9	1.3	-0.10	<10
Calcium	400	6.6	50		
Chromium	10	1.1	1.3	0.10	<10
Cobalt	5.0	2.7	.63	0.30	<5.0
Copper	10	4.6	1.3	-1.4	<10
Iron	70	8.9	12	0.30	<70
Lead	50	13	6.3	4.2	<50
Lithium	5.0	.6	1.3		
Magnesium	200	50	25		
Manganese	5.0	.5	.63	0.50	<5.0
Molybdenum	10	8.5	2.8	-0.10	<10
Nickel	30	6.2	3.8	0.40	<30
Phosphorus	100	91	16		
Potassium	1000	84	130		
Selenium	50	30	22	20.5	<50
Silicon	200	41	150		
Silver	30	.6	3.8	-0.10	<30
Sodium	400	13	50		
Strontium	5.0	.1	.63		
Thallium	10	17	4.3	2.1	<10
Tin	60	41	51		
Titanium	10	.5	1.3		
Uranium	50	3.9	8.5	-5.4	<50
Vanadium	10	.9	1.3	-0.10	<10
Zinc	30	9	3.8	9.9	<30

Associated samples MP39056: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	DA61679-1F Original	MS	Spikelot ICPALL5	% Rec	QC Limits
Aluminum	0.00	1010	1000	101.0	75-125
Antimony	0.0	98.1	100	98.1	75-125
Arsenic	0.0	211	200	105.5	75-125
Barium	0.0	414	400	103.5	75-125
Beryllium	0.0	105	100	105.0	75-125
Boron	0.0	409	400	102.5	75-125
Cadmium	0.0	102	100	102.0	75-125
Calcium					
Chromium	0.0	105	100	105.0	75-125
Cobalt	0.0	104	100	104.0	75-125
Copper	0.0	105	100	105.0	75-125
Iron	15.6	1040	1000	102.4	75-125
Lead	0.0	201	200	100.5	75-125
Lithium					
Magnesium					
Manganese	0.80	210	200	104.5	75-125
Molybdenum	0.0	102	100	102.0	75-125
Nickel	0.0	101	100	101.0	75-125
Phosphorus					
Potassium					
Selenium	0.0	215	200	107.5	75-125
Silicon					
Silver	0.0	41.6	40	104.0	75-125
Sodium	anr				
Strontium					
Thallium	0.0	199	200	99.5	75-125
Tin					
Titanium					
Uranium	0.0	209	200	104.5	75-125
Vanadium	0.0	104	100	104.0	75-125
Zinc	15.8	125	100	109.2	75-125

Associated samples MP39056: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	DA61679-1F Original MS	Spikelot ICPALL5	% Rec	QC Limits

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	DA61679-1F Original	MSD	Spikelot ICPALL5	% Rec	MSD RPD	QC Limit
Aluminum	0.00	1020	1000	102.0	1.0	20
Antimony	0.0	106	100	106.0	7.7	20
Arsenic	0.0	218	200	109.0	3.3	20
Barium	0.0	415	400	103.8	0.2	20
Beryllium	0.0	106	100	106.0	0.9	20
Boron	0.0	413	400	103.5	1.0	20
Cadmium	0.0	104	100	104.0	1.9	20
Calcium						
Chromium	0.0	107	100	107.0	1.9	20
Cobalt	0.0	106	100	106.0	1.9	20
Copper	0.0	107	100	107.0	1.9	20
Iron	15.6	1060	1000	104.4	1.9	20
Lead	0.0	206	200	103.0	2.5	20
Lithium						
Magnesium						
Manganese	0.80	211	200	105.0	0.5	20
Molybdenum	0.0	107	100	107.0	4.8	20
Nickel	0.0	101	100	101.0	0.0	20
Phosphorus						
Potassium						
Selenium	0.0	218	200	109.0	1.4	20
Silicon						
Silver	0.0	41.8	40	104.5	0.5	20
Sodium	anr					
Strontium						
Thallium	0.0	195	200	97.5	2.0	20
Tin						
Titanium						
Uranium	0.0	218	200	109.0	4.2	20
Vanadium	0.0	106	100	106.0	1.9	20
Zinc	15.8	111	100	95.2	11.9	20

Associated samples MP39056: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	DA61679-1F Original MSD	Spikelot ICPALL5 % Rec	MSD RPD	QC Limit

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	BSP Result	Spikelot ICPALL5	% Rec	QC Limits
Aluminum	995	1000	99.5	80-120
Antimony	102	100	102.0	80-120
Arsenic	220	200	110.0	80-120
Barium	415	400	103.8	80-120
Beryllium	106	100	106.0	80-120
Boron	407	400	102.0	80-120
Cadmium	104	100	104.0	80-120
Calcium				
Chromium	105	100	105.0	80-120
Cobalt	106	100	106.0	80-120
Copper	106	100	106.0	80-120
Iron	1040	1000	104.0	80-120
Lead	209	200	104.5	80-120
Lithium				
Magnesium				
Manganese	213	200	106.5	80-120
Molybdenum	104	100	104.0	80-120
Nickel	101	100	101.0	80-120
Phosphorus				
Potassium				
Selenium	219	200	109.5	80-120
Silicon				
Silver	41.5	40	103.8	80-120
Sodium	anr			
Strontium				
Thallium	203	200	101.5	80-120
Tin				
Titanium				
Uranium	209	200	104.5	80-120
Vanadium	106	100	106.0	80-120
Zinc	109	100	109.0	80-120

Associated samples MP39056: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	BSP Result	Spikelot ICPALL5	% Rec	QC Limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/12/24

Metal	DA61679-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	0.00	0.00	NC	0-10
Beryllium	0.00	0.00	NC	0-10
Boron	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	0.00	0.00	NC	0-10
Iron	15.6	0.00	23.7 (a)	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium				
Manganese	0.800	0.00	100.0(a)	0-10
Molybdenum	0.00	0.00	NC	0-10
Nickel	0.00	0.00	NC	0-10
Phosphorus				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Uranium	0.00	0.00	NC	0-10
Vanadium	0.00	0.00	NC	0-10
Zinc	15.8	0.00	10.1 (a)	0-10

Associated samples MP39056: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39056 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/12/24

Metal	DA61679-1F Original	SDL 1:5	%DIF	QC Limits

(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39057
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/13/24

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.10	.015	.05	0.0087	<0.10

Associated samples MP39057: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39057
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/13/24

Metal	DA62542-4F Original	MS	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.0	1.1	1	110.0	75-125

Associated samples MP39057: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39057
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/13/24

Metal	DA62542-4F Original	MSD	Spikelot HGWSR1	% Rec	MSD RPD	QC Limit
Mercury	0.0	1.1	1	110.0	0.0	20

Associated samples MP39057: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

QC Batch ID: MP39057
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 03/13/24

Metal	BSP Result	Spikelot HGWSR1	% Rec	QC Limits
Mercury	1.0	1	100.0	80-120

Associated samples MP39057: DA62542-1F, DA62542-2F, DA62542-3F, DA62542-4F, DA62542-5F, DA62542-6F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP36124/GN62778	0.050	0.0	mg/l	0.5	0.474	94.8	90-110%
Chloride	GP36124/GN62778	0.50	0.0	mg/l	5	4.71	94.2	90-110%
Fluoride	GP36124/GN62778	0.10	0.0	mg/l	1	0.951	95.1	90-110%
Nitrogen, Nitrate	GP36124/GN62778	0.010	0.0	mg/l	0.1	0.0923	92.3	90-110%
Nitrogen, Nitrate	GP36126/GN62780	0.010	0.0	mg/l	0.1	0.0985	98.5	90-110%
Nitrogen, Nitrite	GP36124/GN62778	0.0040	0.0	mg/l	0.05	0.0508	101.6	90-110%
Nitrogen, Nitrite	GP36126/GN62780	0.0040	0.0	mg/l	0.05	0.0525	105.0	90-110%
Solids, Total Dissolved	GN62770	10	0.0	mg/l	250	241	96.4	90-110%
Sulfate	GP36124/GN62778	0.50	0.0	mg/l	5	4.75	95.0	90-110%

Associated Samples:
Batch GN62770: DA62542-1, DA62542-2, DA62542-3, DA62542-4, DA62542-5, DA62542-6
Batch GP36124: DA62542-1, DA62542-2, DA62542-3, DA62542-4, DA62542-5, DA62542-6
Batch GP36126: DA62542-1, DA62542-2, DA62542-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN62770	DA62542-6	mg/l	723	748	3.4	0-5.44%

Associated Samples:
Batch GN62770: DA62542-1, DA62542-2, DA62542-3, DA62542-4, DA62542-5, DA62542-6
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP36124/GN62778	DA62422-1	mg/l	0.0	12.5	12.0	96.0	80-120%
Chloride	GP36124/GN62778	DA62422-1	mg/l	302	125	416	91.2	80-120%
Fluoride	GP36124/GN62778	DA62422-1	mg/l	0.0	25	24.5	98.0	80-120%
Nitrogen, Nitrate	GP36124/GN62778	DA62422-1	mg/l	1.7	2.5	3.9	88.0	80-120%
Nitrogen, Nitrate	GP36126/GN62780	DA62560-6	mg/l	2.4	2.5	4.8	96.0	80-120%
Nitrogen, Nitrite	GP36124/GN62778	DA62422-1	mg/l	0.0	1.25	1.0	80.0	80-120%
Nitrogen, Nitrite	GP36126/GN62780	DA62560-6	mg/l	0.25	1.25	1.4	92.0	80-120%
Sulfate	GP36124/GN62778	DA62422-1	mg/l	287	125	405	94.4	80-120%

Associated Samples:
Batch GP36124: DA62542-1, DA62542-2, DA62542-3, DA62542-4, DA62542-5, DA62542-6
Batch GP36126: DA62542-1, DA62542-2, DA62542-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: DA62542
Account: JTCOCOW - J&T Consulting
Project: Material Sites WQ Testing

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP36124/GN62778	DA62422-1	mg/l	0.0	12.5	12.1	0.8	20%
Chloride	GP36124/GN62778	DA62422-1	mg/l	302	125	418	0.5	20%
Fluoride	GP36124/GN62778	DA62422-1	mg/l	0.0	25	24.8	1.2	20%
Nitrogen, Nitrate	GP36124/GN62778	DA62422-1	mg/l	1.7	2.5	4.0	2.5	20%
Nitrogen, Nitrate	GP36126/GN62780	DA62560-6	mg/l	2.4	2.5	4.7	2.1	20%
Nitrogen, Nitrite	GP36124/GN62778	DA62422-1	mg/l	0.0	1.25	1.0	0.0	20%
Nitrogen, Nitrite	GP36126/GN62780	DA62560-6	mg/l	0.25	1.25	1.4	0.0	20%
Sulfate	GP36124/GN62778	DA62422-1	mg/l	287	125	407	0.5	20%

Associated Samples:
Batch GP36124: DA62542-1, DA62542-2, DA62542-3, DA62542-4, DA62542-5, DA62542-6
Batch GP36126: DA62542-1, DA62542-2, DA62542-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(SGS Scott, LA)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

SGS North America Inc. - Wheat Ridge
4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.sgs.com/ehsusa

FED-EX Tracking #:
Bottle Order Control #:
SGS Quote #:
SGS Job #: DA62542

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: Material Sites WQ Testing	
Street Address: 4036 Youngfield Street	Street:	Company Name:
City: Wheat Ridge, State: CO Zip: 8003	City: State:	Street Address:
Project Contact: Kelly.Blanchard@sgs.com E-mail:	Project #:	City State Zip:
Phone #: 303-425-6021 Fax #:	Client Purchase Order #:	Attention:
Sampler(s) Name(s): TT Phone:	Project Manager:	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	FILTERMET, LI.	LAB USE ONLY
1FC	OGILVY RIVER FARM PIT (MW-1)		3/1/24	10:13:00 AM	TT	AQ										X	1
2FC	OGILVY RIVER FARM PIT (MW-4)		3/1/24	10:35:00 AM	TT	AQ										X	1
3FC	BARNHARDT SAND AND GRAVEL PIT		3/1/24	12:40:00 PM	TT	AQ										X	1
4FC	BARNHARDT SAND AND GRAVEL PIT		3/1/24	12:30:00 PM	TT	AQ										X	1
5FC	SWEET VALLEY PIT (MW-1)		3/1/24	12:55:00 PM	TT	AQ										X	1
6FC	SWEET VALLEY PIT (MW-3)		3/1/24	1:10:00 PM	TT	AQ										X	1

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 3/8/2024

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] CC

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions: 6010 3W2F

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		3/4/24	1 Fedex	2 Fedex	3/6/24 0915	2
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐ Cooler Temp. 3.6

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DA62542: Chain of Custody
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SGS Scott, LA

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DA62542: Chain of Custody
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SGS Sample Receipt Summary

Job Number: da62542 **Client:** SGS NORTH AMERICA **Project:** MATERIALS SITE WQ TESTING

Date / Time Received: 3/5/2024 9:15:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 646648977174

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.6);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (direct contact)		
4. No. Coolers:	1		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: _____ pH 12+: _____ Other: (Specify) _____ _____

Comments NP metals (6-250ml bottles) expired upon receipt. Samples taken 3/1/2024 between 10:13-13:10

SM089-03
Rev. Date 12/7/17

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DA62542: Chain of Custody
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Metals Analysis

QC Data Summaries

(SGS Scott, LA)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: DA62542
Account: ALMS - SGS Wheat Ridge, CO
Project: JTCOCOW: Material Sites WQ Testing

QC Batch ID: MP27849
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/07/24

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	13	25		
Antimony	6.0	2	3.6		
Arsenic	10	2.4	8.6		
Barium	10	.36	1.7		
Beryllium	4.0	.06	.9		
Boron	100	.72	42		
Cadmium	5.0	.14	.9		
Calcium	100	3.8	32		
Chromium	10	.39	1.2		
Cobalt	10	.26	1.1		
Copper	10	.77	2.8		
Iron	100	2.9	18		
Lead	10	1.4	3.7		
Lithium	10	2.4	4.3	1.5	<10
Magnesium	100	22	40		
Manganese	10	.11	.9		
Molybdenum	10	.16	1.7		
Nickel	10	.29	1.5		
Potassium	500	50	120		
Selenium	10	1.5	4.3		
Silver	10	.57	3.7		
Sodium	500	20	120		
Strontium	10	.1	3		
Thallium	10	1.5	4.6		
Tin	10	.74	1.7		
Titanium	10	.41	.8		
Vanadium	10	.39	1.5		
Zinc	20	.18	12		

Associated samples MP27849: DA62542-1FC, DA62542-2FC, DA62542-3FC, DA62542-4FC, DA62542-5FC, DA62542-6FC

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: ALMS - SGS Wheat Ridge, CO
Project: JTCOCOW: Material Sites WQ Testing

QC Batch ID: MP27849
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/07/24

Metal	LA98821-13 Original MS		Spikelot ICPSPIKE1% Rec		QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium					
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	anr				
Lithium	0.0	1740	2000	87.0	75-125
Magnesium					
Manganese	anr				
Molybdenum					
Nickel	anr				
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Strontium					
Thallium					
Tin	anr				
Titanium					
Vanadium					
Zinc	anr				

Associated samples MP27849: DA62542-1FC, DA62542-2FC, DA62542-3FC, DA62542-4FC, DA62542-5FC, DA62542-6FC

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA62542
Account: ALMS - SGS Wheat Ridge, CO
Project: JTCOCOW: Material Sites WQ Testing

QC Batch ID: MP27849
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/07/24

Metal	LA98821-13 Original	MSD	Spikelot ICPSPIKE1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium	0.0	1740	2000	87.0	0.0	20
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin	anr					
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP27849: DA62542-1FC, DA62542-2FC, DA62542-3FC, DA62542-4FC, DA62542-5FC, DA62542-6FC

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA62542
Account: ALMS - SGS Wheat Ridge, CO
Project: JTCOCOW: Material Sites WQ Testing

QC Batch ID: MP27849
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/07/24

Metal	BSP Result	Spikelot ICPSPIKE1	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium	915	1000	91.5	80-120
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin	anr			
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP27849: DA62542-1FC, DA62542-2FC, DA62542-3FC, DA62542-4FC, DA62542-5FC, DA62542-6FC

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: DA62542
Account: ALMS - SGS Wheat Ridge, CO
Project: JTCOCOW: Material Sites WQ Testing

QC Batch ID: MP27849
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/07/24

Metal	LA98821-13 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium	0.00	13.2	NC	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin	anr			
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP27849: DA62542-1FC, DA62542-2FC, DA62542-3FC, DA62542-4FC, DA62542-5FC, DA62542-6FC

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested