

## DATA QUALITY REVIEW SHEET

COGCC Facility ID: 755510  
 Station Name: Hayes Gulch UP  
 Sample Date: 4/19/2023  
 Field Sample ID: Hayes Gulch Up

Operator: TEP Rocky Mountain LLC  
 Drill Pad: GM 241-1 Injection Pad  
 Purpose: 2023 Annual COA  
 Lab Sample ID: 2304247-01

Field Sampling Data Review	Yes	No	N/A
1. Well properly purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Flow rate reduced prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Water quality parameters stable prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Field instruments calibrated properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sampling methods performed according to SAP procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Procedures consistent with obtaining a representative sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lab Data Report Review			
7. Proper sample custody maintained until laboratory receipt?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Receipt form is without discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Samples received at the recommended water temperature of $\leq 6^{\circ}\text{C}$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. All samples analyzed for the requested analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Proper laboratory methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. All sample holding times met besides pH?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Lab QC samples (LCS, LCSD, MB, MS, and MSD) collected and analyzed according to lab method and results within method acceptance limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Was the field investigation sample matrix used by the lab for matrix QC for all analyses?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15. Laboratory qualifiers for sample results (other than non-detect)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Additional qualifiers assigned by WWL to the sample results?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Were submitted trip blanks acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Are corrective actions required? <i>If yes, list actions and dates to be completed by:</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Corrective Action</i>	<i>Date to be completed</i>		

Calculated Parameters	Calculated Value	Measured Lab Value	Ratio/Percent Difference	Acceptable Limit	Meets QC Criteria?
Cation/Anion Balance, % (CAB)	7.06%	2.93	N/A	5%	<input type="checkbox"/>
Total Dissolved Solids, mg/L (TDS)	900	900	1.00	1.0 – 1.2	<input checked="" type="checkbox"/>
Specific Conductance, $\mu\text{S}/\text{cm}$ (SpC)	1343	1260	1.07	0.9 – 1.1	<input checked="" type="checkbox"/>
TDS/SpC, calculated	N/A	N/A	0.67	0.55-0.7	<input checked="" type="checkbox"/>
TDS/SpC, lab measured	N/A	N/A	0.71	0.55-0.7	<input type="checkbox"/>
Anion (meq/L):SpC	N/A	N/A	1.26	0.9 – 1.1	<input type="checkbox"/>
Cation (meq/L):SpC	N/A	N/A	1.09	0.9 – 1.1	<input checked="" type="checkbox"/>

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**Comments:**

- Laboratory analysis of pH was conducted 2 days out of holding time, GAL qualified the result with an H4, WWL qualified the result with an H.
- Laboratory analysis of nitrite as N and nitrate as N was conducted 13 days out of holding time, GAL qualified the result with an H2, WWL qualified the result with an H.
- Laboratory analysis of total N was conducted 13 days out of holding time. WWL assigned an H qualifier.
- Multiple QC analytes were outside of acceptable criteria for MS, MSD, LCS, and LCSD samples.
- A J was assigned to potassium by GAL.
- A Q3 was assigned to phosphorus by GAL.

**Data Suitability Statement**

Based upon this data quality review and your professional judgement, have the data been collected and analyzed in general accordance with the COGCC Model Sampling and Analysis Plan?	<input checked="" type="checkbox"/>		
Are the data suitable for release for incorporation into the COGCC Environmental Database?	<input checked="" type="checkbox"/>		
The inorganic data are qualified due to QC criteria not being met; data are considered estimated and released for incorporation into the COGCC Environmental Database.	<input checked="" type="checkbox"/>		
<b>Data Reviewer's Name:</b>	Alex Kubala	<b>Company:</b>	Western Water & Land, Inc.
<b>Reviewer's Signature:</b>	<i>Alex Kubala</i>	<b>Date:</b>	8/7/2023