

DATA QUALITY REVIEW SHEET

COGCC Facility ID: 753986
 Station Name: Grand Valley Historical Society
264602
 Sample Date: 5/17/2021
 Field Sample ID: GVHS 264602

Operator: TEP Rocky Mountain LLC
 Drill Pad: Watson Ranch B
 Purpose: Rule 615 2nd Subsequent
 Lab Sample ID: 2105365-1

Field Sampling Data Review	Yes	No	N/A
1. Well properly purged?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Flow rate reduced prior to sampling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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?	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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>		
None	N/A		

Calculated Parameters	Calculated Value	Measured Lab Value	Ratio/Percent Difference	Acceptable Limit	Meets QC Criteria?
Cation/Anion Balance, % (CAB)	1.497%	N/A	N/A	2%	<input checked="" type="checkbox"/>
Total Dissolved Solids, mg/L (TDS)	422	440	1.04	1.0 – 1.2	<input checked="" type="checkbox"/>
Specific Conductance, $\mu\text{S}/\text{cm}$ (SpC)	657	718	0.91	0.9 – 1.1	<input checked="" type="checkbox"/>
TDS/SpC, calculated	N/A	N/A	0.64	0.55-0.7	<input checked="" type="checkbox"/>
TDS/SpC, lab measured	N/A	N/A	0.61	0.55-0.7	<input checked="" type="checkbox"/>
Anion (meq/L):SpC	N/A	N/A	1.08	0.9 – 1.1	<input checked="" type="checkbox"/>
Cation (meq/L):SpC	N/A	N/A	1.12	0.9 – 1.1	<input type="checkbox"/>

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Comments:

It was noted on the sample receipt that there was not short-hold samples present, which was incorrect. Laboratory pH was analyzed fourteen days out of holding time. WWL assigned an "H" qualifier to indicate the results are estimated. All other analyses were conducted within recommended holding times. ALS selected field investigation sample GVHS 264602 for MS testing for anions. An "N" qualifier was assigned to bromide in the MS associated with sample GVHS 264602 to indicate spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration. No sample results were assigned qualifiers by the laboratory with the exception of a "J" qualifier assigned to bromide and selenium to indicate a result greater than the method detection limit but less than the reporting limit (result is estimated; a "*" qualifier assigned to the O-Terphenyl surrogate result for DRO because the spiked recovery was outside of the control limits; and an "N" qualifier to indicate spiked sample recovery not within control limits.

The slightly exceeded criteria limit for cation:SpC was considered acceptable on the basis of other quality control criteria for the sample and the sample was not reanalyzed.

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"/>
Data Reviewer's Name:	Trevor Smith	Company: Western Water & Land, Inc.
Reviewer's Signature:	<i>T. Smith</i>	Date: 10/7/2021