



Storey County Commissioners' Office

Drawer 176
Virginia City, NV 89440
(775) 847-0968

**Storey County
Courthouse**
26 South B Street, Virginia City

Commissioners@StoreyCounty.org
www.StoreyCounty.org
Fax: (775) 847-0949

November 30, 2016

Re: Canyon GID Independent Water Test Results

Storey County has been made aware of potential concerns regarding the quality and safety of water provided by the Canyon General Improvement District (CGID). To determine if any validity to these claims exists, we have performed the following:

- We drew test samples from 6 different locations. Draws were typically done at outside hose bibs to minimize the possibility of tainted results due to interior plumbing.
 - 5 of the 6 locations would be considered as “public buildings” including our Elementary School, Sheriff’s Sub-Station, Fire Station and Senior Center.
- Test samples were submitted by us to the independent lab we use for the Virginia City/Gold Hill/Silver City system.
- We requested that all samples be tested for both Coliform and E-Coli as well as Iron and Manganese.
- Coliform and E-Coli positive findings would be considered a “health concern” by NDEP and would require immediate corrective action thru actions such as issuing a “boil water” order or conversion to bottled water until corrected. Since these are considered as unhealthy, any presence is unacceptable...much like a “pass/fail” situation.
 - Test results for all 6 locations came back with zero trace findings. This means that water tested passed all health standards.
- Presence of Iron and Manganese are not considered to pose a health hazard but rather are either “aesthetic”, meaning there may be undesirable tastes or odors or “cosmetic” in that they may be undesirable, such as discolored water, but do not damage the body.
 - EPA established guidelines, considered as “secondary” standards are anything in excess of 0.3 mg/l (ppm) for iron and 0.05 mg/l for manganese.
 - 5 of 6 sites tested were well below the threshold standards for both Iron and Manganese and in fact any trace of Manganese was not detected (ND) at those 5 sites.
 - The exception site was our own Fire Station where ratings were almost double the standard for Iron and triple the standard for manganese. We have known about occasional occurrences which we believe to be due the very aged plumbing inside the building and have mitigated it thru partial filtering of potable water. However, given these results, we are most likely going to beef up over all filtering at that location.

Storey County also intends to perform additional tests at 3 to 4 locations where we have been told prior concerns have been voiced. The CGID has been extremely supportive of our efforts to perform an independent analysis. In the meantime, given the results attached, I am confident that the water provided by the Canyon GID is safe to drink and encourage any user on their system to contact the GID at 342-2850 if they have questions or concerns.

Pat Whitten
Storey County Manager

A handwritten signature in blue ink, appearing to read "Pat Whitten", is written over the typed name.

11/14/2016

Storey County
P.O. Box 435
Virginia City, NV 89440
Attn: Blake Hiller

OrderID: 1610886

Dear: Blake Hiller

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, online edition, Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020, and Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW846) Third Edition.

The samples were received by WETLAB-Western Environmental Testing Laboratory in good condition on 10/31/2016. Additional comments are located on page 2 of this report.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,



Jennifer Delaney
QA Specialist

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel (775) 355-0202
fax (775) 355-0817
EPA LAB ID: NV00925 - ELAP No: 2523

ELKO

1084 Lamoille Hwy
Elko, Nevada 89801
tel (775) 777-9933
fax (775) 777-9933
EPA LAB ID: NV00926

LAS VEGAS

3230 Polaris Ave. Suite 4
Las Vegas, Nevada 89102
tel (702) 475-8899
fax (702) 622-2868
EPA LAB ID: NV00932

Western Environmental Testing Laboratory

Report Comments

Storey County - 1610886

Specific Report Comments

None

Report Legend

- B -- Blank contamination; Analyte detected above the method reporting limit in an associated blank
- D -- Due to the sample matrix dilution was required in order to properly detect and report the analyte. The reporting limit has been adjusted accordingly.
- HT -- Sample analyzed beyond the accepted holding time
- J -- The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- M -- The matrix spike/matrix spike duplicate (MS/MSD) values for the analysis of this parameter were outside acceptance criteria due to probable matrix interference. The reported result should be considered an estimate.
- N -- There was insufficient sample available to perform a spike and/or duplicate on this analytical batch.
- NC -- Not calculated due to matrix interference
- QD -- The sample duplicate or matrix spike duplicate analysis demonstrated sample imprecision. The reported result should be considered an estimate.
- QL -- The result for the laboratory control sample (LCS) was outside WETLAB acceptance criteria and reanalysis was not possible. The reported data should be considered an estimate.
- S -- Surrogate recovery was outside of laboratory acceptance limits due to matrix interference. The associated blank and LCS surrogate recovery was within acceptance limits
- SC -- Spike recovery not calculated. Sample concentration >4X the spike amount; therefore, the spike could not be adequately recovered
- U -- The analyte was analyzed for, but was not detected above the level of the reported sample reporting/quantitation limit

General Lab Comments

Per method recommendation (section 4.4), Samples analyzed by methods EPA 300.0 and EPA 300.1 have been filtered prior to analysis.

The following is an interpretation of the results from EPA method 9223B:

A result of zero (0) indicates absence for both coliform and Escherichia coli meaning the water meets the microbiological requirements of the U.S. EPA Safe Drinking Water Act (SDWA). A result of one (1) for either test indicates presence and the water does not meet the SDWA requirements. Waters with positive tests should be disinfected by a certified water treatment operator and retested.

Per federal regulation the holding time for the following parameters in aqueous/water samples is 15 minutes: Residual Chlorine, pH, Dissolved Oxygen, Sulfite,

SPARKS

475 E. Greg Street, Suite 119
Sparks, Nevada 89431
tel (775) 355-0202
fax (775) 355-0817
EPA LAB ID: NV00925 - ELAP No: 2523

ELKO

1084 Lamoille Hwy
Elko, Nevada 89801
tel (775) 777-9933
fax (775) 777-9933
EPA LAB ID: NV00926

LAS VEGAS

3230 Polaris Ave. Suite 4
Las Vegas, Nevada 89102
tel (702) 475-8899
fax (702) 622-2868
EPA LAB ID: NV00932

Western Environmental Testing Laboratory Analytical Report

Storey County
 P.O. Box 435
 Virginia City, NV 89440
 Attn: Blake Hiller
 Phone: (775) 847-0958 Fax: (775) 847-0947
 PO\Project: Lockwood Iron/ Manganese

Date Printed: 11/14/2016
 OrderID: 1610886

Customer Sample ID: Lockwood Fire House Collect Date/Time: 10/31/2016 10:34
 WETLAB Sample ID: 1610886-001 Field Residual Chlorine: 0.32 mg/L Receive Date: 10/31/2016 12:52

Analyte	Method	Results	Units	DF	RL	Analyzed	LabID
Microbiological Analyses							
Total Coliform	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Escherichia Coli	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Trace Metals by ICP-OES							
Iron	EPA 200.7	0.64	mg/L	1	0.020	11/3/2016	NV00925
Manganese	EPA 200.7	0.16	mg/L	1	0.0050	11/3/2016	NV00925
Sample Preparation							
Trace Metals Digestion	EPA 200.2	Complete		1		11/3/2016	NV00925

Customer Sample ID: Lockwood Sheriff's Office Collect Date/Time: 10/31/2016 11:03
 WETLAB Sample ID: 1610886-002 Field Residual Chlorine: 0.02 mg/L Receive Date: 10/31/2016 12:52

Analyte	Method	Results	Units	DF	RL	Analyzed	LabID
Microbiological Analyses							
Total Coliform	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Escherichia Coli	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Trace Metals by ICP-OES							
Iron	EPA 200.7	0.039	mg/L	1	0.020	11/1/2016	NV00925
Manganese	EPA 200.7	ND	mg/L	1	0.0050	11/1/2016	NV00925

Customer Sample ID: Lockwood Senior Center Collect Date/Time: 10/31/2016 11:20
 WETLAB Sample ID: 1610886-003 Field Residual Chlorine: 1.26 mg/L Receive Date: 10/31/2016 12:52

Analyte	Method	Results	Units	DF	RL	Analyzed	LabID
Microbiological Analyses							
Total Coliform	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Escherichia Coli	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Trace Metals by ICP-OES							
Iron	EPA 200.7	0.030	mg/L	1	0.020	11/1/2016	NV00925
Manganese	EPA 200.7	ND	mg/L	1	0.0050	11/1/2016	NV00925

DF=Dilution Factor, RL=Reporting Limit, ND=Not Detected or <RL

SPARKS
 475 E. Greg Street, Suite 119
 Sparks, Nevada 89431
 tel (775) 355-0202
 fax (775) 355-0817
 EPA LAB ID: NV00925 - ELAP No: 2523

ELKO
 1084 Lamoille Hwy
 Elko, Nevada 89801
 tel (775) 777-9933
 fax (775) 777-9933
 EPA LAB ID: NV00926

LAS VEGAS
 3230 Polaris Ave, Suite 4
 Las Vegas, Nevada 89102
 tel (702) 475-8899
 fax (702) 622-2868
 EPA LAB ID: NV00932

Customer Sample ID: Lockwood Elementary School

Collect Date/Time: 10/31/2016 11:39

WETLAB Sample ID: 1610886-004

Field Residual Chlorine: 1.45 mg/L

Receive Date: 10/31/2016 12:52

Analyte	Method	Results	Units	DF	RL	Analyzed	LabID
Microbiological Analyses							
Total Coliform	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Escherichia Coli	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Trace Metals by ICP-OES							
Iron	EPA 200.7	0.10	mg/L	1	0.020	11/1/2016	NV00925
Manganese	EPA 200.7	ND	mg/L	1	0.0050	11/1/2016	NV00925

Customer Sample ID: Lockwood Clubhouse

Collect Date/Time: 10/31/2016 11:59

WETLAB Sample ID: 1610886-005

Field Residual Chlorine: 0.96 mg/L

Receive Date: 10/31/2016 12:52

Analyte	Method	Results	Units	DF	RL	Analyzed	LabID
Microbiological Analyses							
Total Coliform	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Escherichia Coli	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Trace Metals by ICP-OES							
Iron	EPA 200.7	ND	mg/L	1	0.020	11/1/2016	NV00925
Manganese	EPA 200.7	ND	mg/L	1	0.0050	11/1/2016	NV00925

Customer Sample ID: [REDACTED] Residence

Collect Date/Time: 10/31/2016 12:22

WETLAB Sample ID: 1610886-006

Field Residual Chlorine: 1.17 mg/L

Receive Date: 10/31/2016 12:52

Analyte	Method	Results	Units	DF	RL	Analyzed	LabID
Microbiological Analyses							
Total Coliform	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Escherichia Coli	SM 9223B (IDEXX Colilert)	0	/100 mL	1		10/31/2016	NV00925
Trace Metals by ICP-OES							
Iron	EPA 200.7	0.035	mg/L	1	0.020	11/1/2016	NV00925
Manganese	EPA 200.7	ND	mg/L	1	0.0050	11/1/2016	NV00925

SPARKS

475 E. Greg Street, Suite 119
 Sparks, Nevada 89431
 tel (775) 355-0202
 fax (775) 355-0817
 EPA LAB ID: NV00925 - ELAP No: 2523

ELKO

1084 Lamoille Hwy
 Elko, Nevada 89801
 tel (775) 777-9933
 fax (775) 777-9933
 EPA LAB ID: NV00926

LAS VEGAS

3230 Polaris Ave, Suite 4
 Las Vegas, Nevada 89102
 tel (702) 475-8899
 fax (702) 622-2868
 EPA LAB ID: NV00932