Silver State Labs-Reno 1135 Financial Blvd (775) 857-2400 FAX: (888) 398-7002 www.ssalabs.com

November 20, 2018 Workorder 18101609

Jay Flakus CITY OF YERINGTON 102 South Main Street Yerington, NV 89447

Project: WO7

Dear Jay Flakus:

It is the policy of Silver State Analytical Laboratory - Reno to strictly adhere to a comprehensive Quality Assurance Plan that ensures the data presented in this report are both accurate and precise. Silver State Analytical Laboratory - Reno maintains accreditation in the State of Nevada (NV-00015) and the State of California (ELAP 2990).

The data presented in this report was obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with an appropriate explanation in the Analysis Report section of the Laboratory Report.

Sincerely,

Carly Wood Laboratory Director 1135 Financial Blvd Reno, NV 89502



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**Analytical Report** 

Workorder#: 18101609 Date Reported: 11/20/2018

**Client:** CITY OF YERINGTON Sampled By J. Flakus

**Project Name:** WO7

**PO** #:

Laboratory Accreditation Number NV015/CA2990

**Client Sample ID Date Received** Laboratory ID **Date/Time Sampled** 

18101609-01 WO7 10/30/2018 13:30 10/30/2018

						Date/Time	Data
Parameter	Method	Result	Units	MCL	Analyst	Analyzed	Flag
Arsenic	EPA 200.8	0.005	mg/L	0.01	JF	11/15/2018 15:55	
Digestion Turbidity Check	EPA 200.8	< 1.0	NTU		KL	10/31/2018 10:25	
Nitrate as N	EPA 300.0	<0.5	mg/L	10	KL	11/01/2018 12:52	



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# **Quality Control Report**

R23095

**Batch ID:** 

WO#: 18101609

11/20/2018

**Analysis:** Anions 300.0 Method: EPA 300.0

**Method Blank** 

RunID: 23095 Units: mg/L SeqNo 510037 Analysis Date: 10/22/2018 10:12:18 AM Analyst: KL

Analyte	Result	Rep Limit	Rep Qual
Nitrate as N	< 0.050	0.050	

### **Laboratory Control Sample (LCS)**

RunID: 23095 SeqNo 510040 Units: mg/L Analysis Date: 10/22/2018 12:55:43 PM Analyst: KL

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	 	 RPD	RPD Limit	Low Limit	High Limit	Qual
Nitrate as N	1.800	1.9	106						

## Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18101638-01A

RunID: 23095 SeqNo 510048 Units: mg/L Analysis Date: 10/31/2018 6:40:47 PM Analyst: KL

Analyte	Sample Result	_	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual	
Nitrate as N	23.95	100.0	120	100	100.0	120	97.5	2.28	20	90	110		l

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18101655-01A

Units: SeqNo 510066 RunID: 23095 mg/L Analysis Date: 11/1/2018 2:50:43 AM Analyst: KL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Nitrate as N	0	100.0	100	105	100.0	110	105	0.593	20	90	110	

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18101493-04A

RunID: 23095 SeqNo 510080 Units: mg/L Analysis Date: 11/1/2018 9:14:52 AM Analyst: KL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Nitrate as N	6.729	1000	1100	106	1000	1100	106	0.153	20	90	110	

Metals 200.8 **Analysis:** 

Method: EPA 200.8 **Batch ID:** R23542



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# **Quality Control Report**

WO#: 18101609

11/20/2018

#### **Method Blank**

RunID: 23542 Units: mg/L SeqNo 520775 Analysis Date: 11/15/2018 1:57:02 PM Analyst: JF

Analyte	Result	Rep Limit	Rep Qual
Arsenic	< 0.0010	0.0010	

### **Laboratory Control Sample (LCS)**

RunID: 23542 SeqNo 520776 Units: mg/L Analysis Date: 11/15/2018 2:03:34 PM Analyst: JF

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	LCSD Spike Added	Result	LCSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Arsenic	0.1000	0.10	102				•		•	•	

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 18101652-01B

RunID: 23542 SeqNo 520786 Units: mg/L Analysis Date: 11/15/2018 3:08:45 PM Analyst: JF

Analyte	Sample Result			MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Arsenic	0004244	0.1000	0.10	104	0.1000	0.11	109	4.19	20	70	130	

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CHAIN-OF-CUSTODY-RECORD

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samples as they are received by the laboratory.	samples as they ar		applies. If collections	d T & C's or other written agreement :	o process samples. This obligates your organization for service fees. SSAL Standa	Authorization is required to
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			Grab Matrix* Preservative**	SSAL - SEM Lab No.	Sample Identification	Date Time Sampled Sampled
Temperature: Other:	Temp	A			NOTE: A Rush Surcharge is applied for rush samples	NOTE: A Rush
Field Measurements On-Site pH: Chlorine:	On-S	ITRA RSEN	er / Type of	Otto	3 Day: Citiet (Specify).  4 Day: Rush results will be issued after 4:00 p.m. 5 Day:	Same Day:
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Preservative\*\* 1=H<sub>2</sub>SO<sub>4</sub>, 2=HNO<sub>3</sub>, 3=HCl, 4=NaOH, 5=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, 6=None, 7=Other

Matrix\* DW-Drinking Water, WW-Waste Water, GW-Ground Water, SW-Surface Water, SS-Soil, S-Solid, OT-Other

iner\*\*\* P-Plastic, G-Glass, V-Voa Vial, OT-Other



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**Definitions & Qualifiers** 

WO#: 18101609 Date: 11/20/2018

#### Definitions:

LCS: Laboratory Control Sample; prepared by adding a known mass of target analytes to a specified amount of de-ionized water and prepared with the batch of samples, used to calculate Accuracy (%REC).

LCSD: LCS Duplicate; used to calculate both Accuracy (%REC) and Precision (%RPD)

MBLK: Method Blank; a sample of similar matrix that is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedure, and in which no target analytes or interferences are present at concentrations that impact the analytical results for sample analyses.

MS: Matrix Spike; prepared by adding a known mass of target analytes to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available, used to calculate Accuracy (%REC)

MSD: Matrix Spike Duplicate; used to calculate both Accuracy (%REC) and Precision (%RPD)

RPD: Relative Percent Difference; comparison between sample and duplicate and/or MS and MSD.

POL: Practical Quantitation Limit; the limit to which data is quantitated for reporting.

MDL: Method Detection Limit; the limit to which the instrument can reliably detect.

MCL: Maximum Contaminant Level; value set according to EPA guidelines.

#### **Oualifiers:**

- \* Analyte exceeds Safe Drinking Water Act MCL, does not meet drinking water standards.
- C Analyte value below Safe Drinking Water Act MCL, does not meet drinking water standards.
- B Analyte found above the PQL in associated method blank.
- G Calibration blank analyte detected above POL.
- H Sample analyzed beyond holding time for this parameter.
- J Estimated Value; Analyte found between MDL and PQL limits.
- L Sample concentration is at least 5 times greater than spike contribution. Spike recovery criteria do not apply.
- R RPD between sample and duplicate sample outside the RPD acceptance limits.
- S Batch MS and/or MSD were outside acceptance limits, batch LCS was acceptable.
- W Sample temperature when recieved was out of limit as specified by method.