



Silver State Labs-Reno  
1135 Financial Blvd  
Reno, NV 89502  
(775) 857-2400 FAX: (888) 398-7002  
www.ssalabs.com

December 05, 2018  
Workorder **18110718**

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

Project: W05

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.

18110718: G ALPHA/BETA has been Sub Contracted.

Sincerely,

Carly Wood  
Laboratory Director  
1135 Financial Blvd  
Reno, NV 89502



Silver State Labs-Reno  
 1135 Financial Blvd  
 Reno, NV 89502  
 (775) 857-2400 FAX: (888) 398-7002  
 www.ssalabs.com

# Analytical Report

Workorder#: 18110718  
 Date Reported: 12/5/2018

**Client:** CITY OF YERINGTON

**Sampled By** J. Flakus

**Project Name:** W05

**PO #:**

**Laboratory Accreditation Number** NV015/CA2990

Laboratory ID	Client Sample ID	Date/Time Sampled	Date Received
18110718-01	W05	11/14/2018 9:10	11/14/2018

Parameter	Method	Result	Units	MCL	Analyst	Date/Time Analyzed	Data Flag
ALPHA, Gross	EPA 900	See Report			CW		
BETA, Gross	EPA 900	See Report			CW		

**Laboratory Accreditation Number** NV015/CA2990

Laboratory ID	Client Sample ID	Date/Time Sampled	Date Received
18110718-02	W05	11/14/2018 9:10	11/14/2018

Parameter	Method	Result	Units	MCL	Analyst	Date/Time Analyzed	Data Flag
Digestion Turbidity Check	EPA 200.8	< 1.0	NTU		KL	11/15/2018 14:37	
Uranium	EPA 200.8	0.014	mg/L	0.03	JF	11/30/2018 3:01	

Original

**Analysis:** Metals 200.8

**Method:** EPA 200.8

**Batch ID:** R23935

**Laboratory Control Sample (LCS)**

RunID: 23935 SeqNo 533354 Units: mg/L

Analysis Date: 11/29/2018 9:40:23 PM Analyst: JF

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	LCSD Spike Added	LCSD Result	LCSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Uranium	0.1000	0.10	100								

**Laboratory Control Sample (LCS)**

RunID: 23935 SeqNo 533394 Units: mg/L

Analysis Date: 11/30/2018 2:48:39 AM Analyst: JF

Analyte	LCS Spike Added	LCS Result	LCS % Recovery	LCSD Spike Added	LCSD Result	LCSD % Recovery	RPD	RPD Limit	Low Limit	High Limit	Qual
Uranium	0.1000	0.10	103								

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

Sample Spiked: 18110686-01B

RunID: 23935 SeqNo 533384 Units: mg/L

Analysis Date: 11/30/2018 12:55:52 AM Analyst: JF

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
Uranium	0.01591	0.2000	0.22	102	0.2000	0.23	105	2.61	20	70	130	

November 30, 2018

Mr. Joe Nava  
Sierra Environmental Monitoring, Inc.  
1135 Financial Blvd.  
Reno, NV 89502

RE: Project: 18110718  
Pace Project No.: 30272108

Dear Mr. Nava:

Enclosed are the analytical results for sample(s) received by the laboratory on November 19, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carin Ferris  
carin.ferris@pacelabs.com  
724-850-5615  
Project Manager

Enclosures

cc: Ms. Carly Wood, Sierra Environmental Monitoring, Inc.



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

## CERTIFICATIONS

Project: 18110718  
Pace Project No.: 30272108

### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### SAMPLE SUMMARY

Project: 18110718  
Pace Project No.: 30272108

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30272108001	18110718-01A	Drinking Water	11/14/18 09:10	11/19/18 09:50

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### SAMPLE ANALYTE COUNT

Project: 18110718  
Pace Project No.: 30272108

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30272108001	18110718-01A	EPA 900.0	NEG	2

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 18110718

Pace Project No.: 30272108

**Sample: 18110718-01A**      **Lab ID: 30272108001**      Collected: 11/14/18 09:10      Received: 11/19/18 09:50      Matrix: Drinking Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	<b>5.95 ± 2.66 (2.74)</b> C:NA T:NA	pCi/L	11/26/18 08:44	12587-46-1	
Gross Beta	EPA 900.0	<b>4.77 ± 1.38 (2.08)</b> C:NA T:NA	pCi/L	11/26/18 08:44	12587-47-2	

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



### QUALITY CONTROL - RADIOCHEMISTRY

Project: 18110718

Pace Project No.: 30272108

QC Batch: 321306

Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0

Analysis Description: 900.0 Gross Alpha/Beta

Associated Lab Samples: 30272108001

METHOD BLANK: 1566970

Matrix: Water

Associated Lab Samples: 30272108001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.294 ± 0.674 (1.60) C:NA T:NA	pCi/L	11/26/18 08:54	
Gross Beta	0.490 ± 0.986 (2.25) C:NA T:NA	pCi/L	11/26/18 08:54	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

## QUALIFIERS

Project: 18110718  
Pace Project No.: 30272108

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.



CHAIN OF CUSTODY RECORD

COC ID: 4033

PAGE: 1 OF: 1

WO#: 30272108



30272108

ADDRESS  
Silver State Labs-Reno  
1135 Financial Blvd  
Reno, NV 89502  
TEL: (775) 857-2400  
FAX: (888) 398-7002  
Website: www.ssalabs.com

SUB CONTRACTOR: <b>Pace Greenburg-R</b>		COMPANY: <b>Pace Analytical Services</b>	
ADDRESS: <b>1638 Roseytown Road</b>			
CITY, STATE, ZIP: <b>Greenburg, PA 15601</b>			
PHONE: <b>(724) 850-5600</b>	FAX:	EMAIL:	
ACCOUNT #: <b>18110718</b>	PO#: <b>18110718</b>	SAMPLER: <b>J. Flakus</b>	
ITEM #	SAMPLE ID	Client Sample ID	DATE COLLECTED
1	18110718-01A	W05	11/14/2018 9:10
		Bottle Type	MATRIX
		Drinking Water	
		NUMBER OF CONTAINERS	1
SUB-G ALPHA/BETA-R (E900) <input checked="" type="checkbox"/>			
ANALYTICAL PARAMETERS			
SPECIAL INSTRUCTIONS / COMMENTS: Please send results to: jnava@ssalabs.com; cwood@ssalabs.com NV Sample			

001

Relinquished By: <b>BENITEZ</b>	Date: <b>11-15-18</b>	Time: <b>15:30</b>	Received By: <i>Emily</i>	Date: <b>11-19-18</b>	Time: <b>09:50</b>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
TAT: <input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Next BD	<input type="checkbox"/> 2nd BD	<input type="checkbox"/> 3rd BD	RUSH	
Note: RUSH requests will incur surcharges!					
REPORT TRANSMITTAL DESIRED:			FOR LAB USE ONLY		
<input type="checkbox"/> HARDCOPY (extra cost)			<input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE		
Temp of samples _____ °C			Attempt to Cool? _____		
Comments: _____			_____		

Pittsburgh Lab Sample Condition Upon Receipt

Face Analytical

Client Name: Silver State

Project # **# 30272108**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

Tracking #: 4436 4823 2359

Label	<u>ET</u>
LIMS Login	<u>ET</u>

Custody Seal on Cooler/Box Present:  yes  no      Seals intact:  yes  no

Thermometer Used N/A      Type of Ice: Wet Blue None

Cooler Temperature Observed Temp \_\_\_\_\_ °C      Correction Factor: \_\_\_\_\_ °C      Final Temp: \_\_\_\_\_ °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and Initials of person examining contents: <u>ET 11-19-18</u>
	Yes	No	N/A	
Chain of Custody Present:	/			1.
Chain of Custody Filled Out:	/			2.
Chain of Custody Relinquished:	/			3.
Sampler Name & Signature on COC:	/			4.
Sample Labels match COC:	/			5.
-Includes date/time/ID      Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):	/			7.
Rush Turn Around Time Requested:	/			8.
Sufficient Volume:	/			9.
Correct Containers Used:	/			10.
-Pace Containers Used:	/			
Containers Intact:	/			11.
Orthophosphate field filtered	/			12.
Hex Cr Aqueous Compliance/NPDES sample field filtered	/			13.
Organic Samples checked for dechlorination:	/			14.
Filtered volume received for Dissolved tests	/			15.
All containers have been checked for preservation.	/			16.
All containers needing preservation are found to be in compliance with EPA recommendation.	/			
exceptions: VOA, coliform, TOC, O&G, Phenolics				
				Initial when completed: <u>ET</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):	/			17.
Trip Blank Present:	/			18.
Trip Blank Custody Seals Present	/			
Rad Aqueous Samples Screened > 0.5 mrem/hr	/			Initial when completed: <u>ET</u> Date: <u>11-19-18</u>

Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

\*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Report Results To:  
 Report Attention: **Jay Flakus, Public Works Director**  
 Company: **City of Yerington Nevada - Public Works**  
 Mailing Address: **102 S Main Street**  
 City, State, Zip: **Yerington, NV 89447**  
 Phone: **775-302-1155**  
 Email / Fax: **jayf@yerington.net**






Project Number:  
 Send Invoice To:  
 Invoice Attention: **Jay Flakus**  
 Company: **City of Yerington Nevada - Public Works**  
 Mailing Address: **102 S Main Street**  
 City, State, Zip: **Yerington, NV 89447**  
 Phone: **775-302-1155**  
 Email / Fax: **jayf@yerington.net**  
 PO# **OPEN** Quote #

COMPLIANCE MONITORING?  Yes  No  
 Results:  Invoice:   
 Applicable Program  
 SDWA  CWA  RCRA   
 Mining  Other \_\_\_\_\_  
 QC Level Report  
 I  II  III  IV  
 NOTE: Surcharges apply to Level II, III and IV reports

Sampled by: **Jay Flakus** Signature: \_\_\_\_\_  
 I attest to the validity and authenticity of the sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time is considered fraud and may be grounds for legal action.  
 Standard:  Standard TAT 7-10 Business Days. Note that some tests vary.  
 Rush   
 Same Day:  3 Day:  Other (Specify): \_\_\_\_\_  
 1 Day:  4 Day:  Rush results will be issued after 4:00 p.m.  
 2 Day:  5 Day:   
 NOTE: A Rush Surcharge is applied for rush samples

Date Sampled	Time	Sample Identification	SSAL - SEM Lab No.	Comp. Grab	Matrix	Preservative**	Number / Type of Containers ***
11/14/18	0910	W05		G DW	2	1	X RADS GROSS & X RADS URANIUM
11/14/18	0910	W05		G DW	2	1	X

Send Results Via:  Mail  Email  Fax  
 Send Invoice Via:  Mail  Email  Fax  
 Field Measurements  
 On-Site pH: \_\_\_\_\_ Chlorine: \_\_\_\_\_  
 Temperature: \_\_\_\_\_ Other: \_\_\_\_\_

Relinquished By:	Signature	Print Name	Company	Date	Time
Received By:		Jay Flakus	City of Yerington, NV	11/14/18	13:10
Relinquished By:		Jessyha Cochrane	City of Yerington, NV	11/14/18	1:10
Received By:		Jessyha Cochrane	City of Yerington, NV	11/14/18	2:00
Relinquished By:		Jay Flakus	City of Yerington, NV	11/14/18	16:00
Received By:		Jay Flakus	City of Yerington, NV	11/14/18	15:10

Authorization is required to process samples. This obligates your organization for service fees. SSAL Standard T & C's or other written agreement applies. If collections or legal services are required to recover said fees, your organization will be responsible for all fees and costs in addition to service fees.  
 Matrix\* DW=Drinking Water, WW=Waste Water, GW=Ground Water, SW=Surface Water, SS=Soil, S-Solid, OT=Other  
 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  
 \* P-Plastic, G-Glass, V-Voa, Val, OT-Other

COPY SDW SAMPLE COC 2018  
  
 18027



Silver State Labs-Reno  
1135 Financial Blvd  
Reno, NV 89502  
(775) 857-2400 FAX: (888) 398-7002  
www.ssalabs.com

## Definitions & Qualifiers

WO#: 18110718

Date: 12/5/2018

### 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.

PQL: 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.

### Qualifiers:

\* - 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 PQL.

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 received was out of limit as specified by method.