March 14, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18B0633

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 02/26/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Kevin Brim
Project Manager

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18B0633-01	POC#2-022618	Ground Water	02/26/2018 0936

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
M7	Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Turner Laboratories, Inc.

Date: 03/14/2018

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Lab Sample ID: 18B0633-01

Client Sample ID: POC#2-022618
Collection Date/Time: 02/26/2018 0936
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	02/27/2018 1002	02/27/2018 1429	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	2.5		0.30		mg/L	1	02/27/2018 1655	03/13/2018 1254	MH
Zinc	5.9		0.20	M3	mg/L	5	02/27/2018 1655	03/13/2018 1413	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Arsenic	0.010		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Barium	0.019		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Beryllium	0.00062		0.00050		mg/L	2	02/27/2018 1655	03/06/2018 1427	MH
Cadmium	0.0056		0.00025		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Chromium	0.0011		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Copper	0.0020		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Lead	0.0095		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Manganese	24		0.013		mg/L	50	02/27/2018 1655	03/06/2018 1048	MH
Nickel	0.057		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Selenium	0.0017		0.0025		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
Thallium	ND		0.00050		mg/L	1	02/27/2018 1655	03/05/2018 1652	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	03/05/2018 1139	03/05/2018 1605	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.83		0.50		mg/L	1	02/26/2018 1642	02/26/2018 1908	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	02/26/2018 1642	02/26/2018 1908	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	02/27/2018 1002	02/27/2018 1429	AP
Sulfate	2200		500		mg/L	100	02/27/2018 1620	02/28/2018 0324	AP
Cyanide-E335.4									
Cyanide	ND		0.10		mg/L	1	03/05/2018 0910	03/06/2018 1535	AP

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Lab Sample ID: 18B0633-01

Client Sample ID: POC#2-022618
Collection Date/Time: 02/26/2018 0936
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	02/27/2018 1520	02/27/2018 1555	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3200		20		mg/L	1	03/01/2018 0830	03/02/2018 1625	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803028 - E 200.8 (5.4)										
Blank (1803028-BLK1)				Prepared & Analyzed: 03/05/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1803028-BS1)				Prepared & Analyzed: 03/05/2018						
Antimony	0.050	0.00050	mg/L	0.05000		101	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Barium	0.050	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		101	85-115			
Copper	0.051	0.00050	mg/L	0.05000		101	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Manganese	0.052	0.00025	mg/L	0.05000		105	85-115			
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115			
LCS Dup (1803028-BSD1)				Prepared & Analyzed: 03/05/2018						
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115	0.5	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.5	20	
Barium	0.050	0.00050	mg/L	0.05000		101	85-115	0.4	20	
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115	0.4	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	0.4	20	
Chromium	0.051	0.00050	mg/L	0.05000		101	85-115	0.4	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	0.09	20	
Manganese	0.053	0.00025	mg/L	0.05000		106	85-115	0.8	20	
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115	0.3	20	
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115	0.2	20	
Thallium	0.051	0.00050	mg/L	0.05000		102	85-115	0.8	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803028 - E 200.8 (5.4)										
Matrix Spike (1803028-MS1)	**Source: 18B0491-01**			Prepared & Analyzed: 03/05/2018						
Antimony	0.047	0.00050	mg/L	0.05000	0.0010	92	70-130			
Arsenic	0.067	0.00050	mg/L	0.05000	0.016	102	70-130			
Barium	0.050	0.00050	mg/L	0.05000	0.0043	91	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	ND	91	70-130			
Cadmium	0.046	0.00025	mg/L	0.05000	ND	92	70-130			
Chromium	0.046	0.00050	mg/L	0.05000	0.00070	91	70-130			
Copper	0.047	0.00050	mg/L	0.05000	0.0019	90	70-130			
Lead	0.046	0.00050	mg/L	0.05000	0.00013	91	70-130			
Manganese	0.052	0.00025	mg/L	0.05000	0.0049	94	70-130			
Nickel	0.046	0.00050	mg/L	0.05000	0.00080	90	70-130			
Selenium	0.055	0.0025	mg/L	0.05000	0.00098	108	70-130			
Thallium	0.046	0.00050	mg/L	0.05000	ND	92	70-130			
Batch 1803032 - E 245.1										
Blank (1803032-BLK1)				Prepared & Analyzed: 03/05/2018						
Mercury	ND	0.0010	mg/L							
LCS (1803032-BS1)				Prepared & Analyzed: 03/05/2018						
Mercury	0.0047	0.0010	mg/L	0.005000		93	85-115			
LCS Dup (1803032-BSD1)				Prepared & Analyzed: 03/05/2018						
Mercury	0.0049	0.0010	mg/L	0.005000		97	85-115	4	20	
Matrix Spike (1803032-MS1)	**Source: 18B0611-01**			Prepared & Analyzed: 03/05/2018						
Mercury	0.0041	0.0010	mg/L	0.005000	ND	82	85-115			M7
Matrix Spike Dup (1803032-MSD1)	**Source: 18B0611-01**			Prepared & Analyzed: 03/05/2018						
Mercury	0.0033	0.0010	mg/L	0.005000	ND	66	85-115	22	20	M7
Batch 1803139 - E 200.7 (4.4)										
Blank (1803139-BLK1)				Prepared & Analyzed: 03/13/2018						
Iron	ND	0.30	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1803139-BS1)				Prepared & Analyzed: 03/13/2018						
Iron	0.96	0.30	mg/L	1.000		96	85-115			
Zinc	0.51	0.040	mg/L	0.5000		103	85-115			
LCS Dup (1803139-BSD1)				Prepared & Analyzed: 03/13/2018						
Iron	0.99	0.30	mg/L	1.000		99	85-115	3	20	
Zinc	0.52	0.040	mg/L	0.5000		104	85-115	1	20	
Matrix Spike (1803139-MS1)	**Source: 18B0633-01**			Prepared & Analyzed: 03/13/2018						
Iron	3.5	0.60	mg/L	1.000	2.5	92	70-130			
Zinc	5.8	0.080	mg/L	0.5000	5.9	NR	70-130			M3

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802283 - SM2320B										
LCS (1802283-BS1)				Prepared & Analyzed: 02/27/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		95	90-110			
LCS Dup (1802283-BSD1)				Prepared & Analyzed: 02/27/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110	0.8	10	
Matrix Spike (1802283-MS1)	**Source: 18B0501-01**			Prepared & Analyzed: 02/27/2018						
Alkalinity, Total (As CaCO3)	390	2.0	mg/L	250.0	150	94	85-115			
Matrix Spike Dup (1802283-MSD1)	**Source: 18B0501-01**			Prepared & Analyzed: 02/27/2018						
Alkalinity, Total (As CaCO3)	390	2.0	mg/L	250.0	150	94	85-115	0	10	
Batch 1803002 - SM2540 C										
Duplicate (1803002-DUP1)	**Source: 18B0632-03**			Prepared: 03/01/2018 Analyzed: 03/02/2018						
Total Dissolved Solids (Residue, Filterable)	490	20	mg/L		510			5	5	
Batch 1803030 - E335.4										
Blank (1803030-BLK1)				Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	ND	0.10	mg/L							
LCS (1803030-BS1)				Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	2.1	0.10	mg/L	2.000		106	90-110			
LCS Dup (1803030-BSD1)				Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	2.1	0.10	mg/L	2.000		104	90-110	2	20	
Matrix Spike (1803030-MS1)	**Source: 18B0611-01**			Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	2.1	0.10	mg/L	2.000	ND	104	90-110			
Matrix Spike Dup (1803030-MSD1)	**Source: 18B0611-01**			Prepared: 03/05/2018 Analyzed: 03/06/2018						
Cyanide	1.9	0.10	mg/L	2.000	ND	97	90-110	8	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18B0633
Date Received: 02/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1802266 - E300.0 (2.1)										
Blank (1802266-BLK1)				Prepared & Analyzed: 02/26/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1802266-BS1)				Prepared & Analyzed: 02/26/2018						
Fluoride	2.0	0.50	mg/L	2.000		101	90-110			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		99	90-110			
Sulfate	13	5.0	mg/L	12.50		100	90-110			
LCS Dup (1802266-BSD1)				Prepared & Analyzed: 02/26/2018						
Fluoride	2.0	0.50	mg/L	2.000		102	90-110	0.7	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		100	90-110	0.8	10	
Sulfate	13	5.0	mg/L	12.50		100	90-110	0.5	10	
Matrix Spike (1802266-MS1)	**Source: 18B0627-01**			Prepared & Analyzed: 02/26/2018						
Nitrogen, Nitrate (As N)	7.7	0.50	mg/L	5.000	1.8	118	80-120			
Sulfate	33	5.0	mg/L	12.50	20	105	80-120			
Matrix Spike (1802266-MS3)	**Source: 18B0624-02**			Prepared & Analyzed: 03/05/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.26	96	80-120			
Matrix Spike Dup (1802266-MSD1)	**Source: 18B0627-01**			Prepared & Analyzed: 02/26/2018						
Nitrogen, Nitrate (As N)	7.7	0.50	mg/L	5.000	1.8	118	80-120	0.4	10	
Sulfate	33	5.0	mg/L	12.50	20	106	80-120	0.1	10	
Matrix Spike Dup (1802266-MSD3)	**Source: 18B0624-02**			Prepared & Analyzed: 03/05/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.26	96	80-120	0.09	10	
Batch 1802278 - E300.0 (2.1)										
Blank (1802278-BLK1)				Prepared & Analyzed: 02/27/2018						
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
LCS (1802278-BS1)				Prepared & Analyzed: 02/27/2018						
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		105	90-110			
LCS Dup (1802278-BSD1)				Prepared & Analyzed: 02/27/2018						
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		106	90-110	0.7	10	
Matrix Spike (1802278-MS3)	**Source: 18B0638-01**			Prepared: 02/27/2018 Analyzed: 02/28/2018						
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	97	80-120			
Matrix Spike (1802278-MS4)	**Source: 18B0642-02**			Prepared: 02/28/2018 Analyzed: 03/01/2018						
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	84	80-120			
Matrix Spike Dup (1802278-MSD3)	**Source: 18B0638-01**			Prepared: 02/27/2018 Analyzed: 02/28/2018						
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	97	80-120	0.8	10	
Matrix Spike Dup (1802278-MSD4)	**Source: 18B0642-02**			Prepared: 02/28/2018 Analyzed: 03/01/2018						
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	84	80-120	0.05	10	

TURNER LABORATORIES, INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18B0633 DATE 2/26/18 PAGE ____ OF ____

PROJECT NAME: Surface Water
CONTACT NAME : Johnny Pappas
COMPANY NAME : Arizona Mining
ADDRESS : 3845 N Business Center Drive, Ste 115
CITY Tucson STATE AZ ZIP CODE 85705
PHONE 520-235-5563 FAX
SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	*** See Attachment
POC#2-022618	2/26/2018	0936		Groundwater	4	x

1. RELINQUISHED BY:
Signature
EDGAR PERALTA
Printed Name
Firm
2-26-18 1427
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Joseph Catalan
Printed Name
TURNER LABORATORIES, INC.
Firm 2/26/18 1427
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 4
Temperature 3.5
☒ Wet Ice ☐ Blue Ice

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact ☒	Appropriate Head Space ☒
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree ☒	Received Within Hold Time ☒

POC #2 – MW3
Monthly

LABORATORY			
Analyte – ICP/MS	**Total**	**Dissolved**	**Other**
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: February 26, 2018
Sample Received: February 28, 2018
Analysis Completed: March 12, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18B0633-01	4.8 ± 1.3	< 0.5	< 0.7	< 0.7

Date of Analysis	3/7/2018	3/2/2018	3/2/2018	3/2/2018

3/12/2018
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04

PWS Name:

Sample Date: February 26, 2018

Sample Time: 9:36 (24 hour clock)

Owner/Contact Person:

Owner/Contact Fax Number:

Owner/Contact Phone Number:

Sample Collection Point

☐ EPDS #

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected:

Date Q2 collected:

Date Q3 collected:

Date Q4 collected:

RADIOCHEMICAL ANALYSIS

\>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	3/7/2018	4.8 ± 1.3	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	3/2/2018	< 0.7	
GammaRay HPGE		1 pCi/L	Radium 226	4020	3/2/2018	< 0.5	
GammaRay HPGE		1 pCi/L	Radium 228	4030	3/2/2018	< 0.7	

LABORATORY INFORMATION

\>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE59999

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18B0633-01

Authorized Signature:

Date Public Water System Notified:

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18B0633

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18B0633-01 Drinking Water Sampled:02/26/2018 09:36	[redacted]		
Radiochemistry, Radium 226/228	03/28/2018 09:36		
Radiochemistry, Gross Alpha	08/25/2018 09:36		
Containers Supplied:			

59999

Released By 2/28/18 1600 Date UPS Received By 2/28/18 16:00 Date

Released By Date Received By Date

TURNER
LABORATORIES INC.

August 21, 2020

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 18C0641
Order Name: Surface Water

RE: Surface Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 2 sample(s) on 03/27/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Kevin Brim
Project Manager

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

Order: Surface Water

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18C0641-01	POC#2-32718	Ground Water	03/27/2018 0945

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M7	Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.
Q5	Sample was received with inadequate chemical preservation, but preserved by the laboratory.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Lab Sample ID: 18C0641-01

Client Sample ID: POC#2-32718
Collection Date/Time: 03/27/2018 0945
Matrix: Ground Water
Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	1.2		0.30		mg/L	1	03/30/2018 0800	04/02/2018 1545	MH
Manganese	25		0.20		mg/L	10	03/30/2018 0800	04/02/2018 1542	MH
Zinc	5.8		0.40		mg/L	10	03/30/2018 0800	04/02/2018 1542	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Arsenic	0.0087		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Barium	0.022		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Beryllium	0.00045		0.00025		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Cadmium	0.0057		0.00025		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Chromium	ND		0.00050		mg/L	1	03/30/2018 0800	04/02/2018 1446	MH
Copper	0.0010		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Lead	ND		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Nickel	0.072		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Selenium	0.0028		0.0025		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
Thallium	ND		0.00050		mg/L	1	03/30/2018 0800	03/30/2018 1259	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	04/06/2018 0940	04/06/2018 1526	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	03/27/2018 1624	03/27/2018 2242	AP
Sulfate	2200		500		mg/L	100	03/28/2018 1615	03/28/2018 1727	AP
Cyanide-E335.4									
Cyanide	ND		0.10	Q5	mg/L	1	04/03/2018 0915	04/04/2018 1635	AP

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2-32718
Project:	Surface Water	**Collection Date/Time:**	03/27/2018 0945
Work Order:	18C0641	**Matrix:**	Ground Water
Lab Sample ID:	18C0641-01	**Order Name:**	Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	190		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Alkalinity, Total (As CaCO3)	190		2.0		mg/L	1	04/02/2018 1335	04/02/2018 1505	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	03/28/2018 0830	03/30/2018 1600	EJ

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803315 - E 200.8 (5.4)										
Blank (1803315-BLK1)				Prepared & Analyzed: 03/30/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1803315-BS1)				Prepared & Analyzed: 03/30/2018						
Antimony	0.045	0.00050	mg/L	0.05000		90	85-115			
Arsenic	0.046	0.00050	mg/L	0.05000		91	85-115			
Barium	0.046	0.00050	mg/L	0.05000		91	85-115			
Beryllium	0.046	0.00025	mg/L	0.05000		91	85-115			
Cadmium	0.046	0.00025	mg/L	0.05000		92	85-115			
Chromium	0.047	0.00050	mg/L	0.05000		94	85-115			
Copper	0.046	0.00050	mg/L	0.05000		92	85-115			
Lead	0.045	0.00050	mg/L	0.05000		90	85-115			
Nickel	0.046	0.00050	mg/L	0.05000		92	85-115			
Selenium	0.046	0.0025	mg/L	0.05000		92	85-115			
Thallium	0.046	0.00050	mg/L	0.05000		92	85-115			
LCS Dup (1803315-BSD1)				Prepared & Analyzed: 03/30/2018						
Antimony	0.045	0.00050	mg/L	0.05000		90	85-115	0.3	20	
Arsenic	0.046	0.00050	mg/L	0.05000		92	85-115	0.8	20	
Barium	0.045	0.00050	mg/L	0.05000		90	85-115	1	20	
Beryllium	0.045	0.00025	mg/L	0.05000		91	85-115	0.8	20	
Cadmium	0.046	0.00025	mg/L	0.05000		91	85-115	0.8	20	
Chromium	0.047	0.00050	mg/L	0.05000		95	85-115	0.9	20	
Copper	0.046	0.00050	mg/L	0.05000		93	85-115	1	20	
Lead	0.045	0.00050	mg/L	0.05000		90	85-115	0.02	20	
Nickel	0.047	0.00050	mg/L	0.05000		93	85-115	1	20	
Selenium	0.047	0.0025	mg/L	0.05000		95	85-115	3	20	
Thallium	0.046	0.00050	mg/L	0.05000		92	85-115	0.6	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803315 - E 200.8 (5.4)										
Matrix Spike (1803315-MS1)	**Source: 18C0648-06**			Prepared & Analyzed: 03/30/2018						
Antimony	0.049	0.00050	mg/L	0.05000	0.0029	92	70-130			
Arsenic	0.059	0.00050	mg/L	0.05000	0.0055	107	70-130			
Barium	0.064	0.00050	mg/L	0.05000	0.014	100	70-130			
Beryllium	0.027	0.00025	mg/L	0.05000	0.000084	53	70-130			M7
Cadmium	0.042	0.00025	mg/L	0.05000	0.00026	84	70-130			
Chromium	0.048	0.00050	mg/L	0.05000	0.00034	95	70-130			
Copper	0.045	0.00050	mg/L	0.05000	0.0057	78	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.00018	96	70-130			
Nickel	0.059	0.00050	mg/L	0.05000	0.016	87	70-130			
Selenium	0.064	0.0025	mg/L	0.05000	0.0016	125	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.00039	99	70-130			
Batch 1803317 - E 200.7 (4.4)										
Blank (1803317-BLK1)				Prepared & Analyzed: 04/02/2018						
Iron	ND	0.30	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1803317-BS1)				Prepared & Analyzed: 04/02/2018						
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Manganese	0.52	0.020	mg/L	0.5000		105	85-115			
Zinc	0.52	0.040	mg/L	0.5000		104	85-115			
LCS Dup (1803317-BSD1)				Prepared & Analyzed: 04/02/2018						
Iron	1.0	0.30	mg/L	1.000		101	85-115	2	20	
Manganese	0.51	0.020	mg/L	0.5000		103	85-115	2	20	
Zinc	0.51	0.040	mg/L	0.5000		103	85-115	1	20	
Matrix Spike (1803317-MS1)	**Source: 18C0660-01**			Prepared & Analyzed: 04/02/2018						
Iron	0.99	0.30	mg/L	1.000	0.020	97	70-130			
Manganese	0.50	0.020	mg/L	0.5000	0.010	98	70-130			
Zinc	0.54	0.040	mg/L	0.5000	0.034	100	70-130			
Batch 1804065 - E 245.1										
Blank (1804065-BLK1)				Prepared & Analyzed: 04/06/2018						
Mercury	ND	0.0010	mg/L							
LCS (1804065-BS1)				Prepared & Analyzed: 04/06/2018						
Mercury	0.0048	0.0010	mg/L	0.005000		96	85-115			
LCS Dup (1804065-BSD1)				Prepared & Analyzed: 04/06/2018						
Mercury	0.0051	0.0010	mg/L	0.005000		102	85-115	6	20	
Matrix Spike (1804065-MS1)	**Source: 18C0606-01**			Prepared & Analyzed: 04/06/2018						
Mercury	0.0050	0.0010	mg/L	0.005000	ND	99	85-115			
Matrix Spike Dup (1804065-MSD1)	**Source: 18C0606-01**			Prepared & Analyzed: 04/06/2018						
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115	0.6	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803287 - SM2540 C										
Duplicate (1803287-DUP1)		**Source: 18C0639-01**		Prepared: 03/28/2018 Analyzed: 03/29/2018						
Total Dissolved Solids (Residue, Filterable)	410	20	mg/L		420			1	5	
Batch 1804011 - SM2320B										
LCS (1804011-BS1)				Prepared & Analyzed: 04/02/2018						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		98	90-110			
LCS Dup (1804011-BSD1)				Prepared & Analyzed: 04/02/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110	2	10	
Matrix Spike (1804011-MS1)		**Source: 18C0693-01**		Prepared & Analyzed: 04/02/2018						
Alkalinity, Total (As CaCO3)	380	2.0	mg/L	250.0	150	93	85-115			
Matrix Spike Dup (1804011-MSD1)		**Source: 18C0693-01**		Prepared & Analyzed: 04/02/2018						
Alkalinity, Total (As CaCO3)	390	2.0	mg/L	250.0	150	94	85-115	0.5	10	
Batch 1804049 - E335.4										
Blank (1804049-BLK1)				Prepared: 04/03/2018 Analyzed: 04/04/2018						
Cyanide	ND	0.10	mg/L							
LCS (1804049-BS1)				Prepared: 04/03/2018 Analyzed: 04/04/2018						
Cyanide	2.1	0.10	mg/L	2.000		107	90-110			
LCS Dup (1804049-BSD1)				Prepared: 04/03/2018 Analyzed: 04/04/2018						
Cyanide	2.2	0.10	mg/L	2.000		109	90-110	2	20	
Matrix Spike (1804049-MS1)		**Source: 18C0606-01**		Prepared: 04/03/2018 Analyzed: 04/04/2018						
Cyanide	2.0	0.10	mg/L	2.000	ND	102	90-110			
Matrix Spike Dup (1804049-MSD1)		**Source: 18C0606-01**		Prepared: 04/03/2018 Analyzed: 04/04/2018						
Cyanide	2.1	0.10	mg/L	2.000	ND	105	90-110	3	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18C0641
Date Received: 03/27/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1803274 - E300.0 (2.1)										
Blank (1803274-BLK1)				Prepared & Analyzed: 03/27/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1803274-BS1)				Prepared & Analyzed: 03/27/2018						
Fluoride	2.1	0.50	mg/L	2.000		103	90-110			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		98	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		95	90-110			
Sulfate	12	5.0	mg/L	12.50		97	90-110			
LCS Dup (1803274-BSD1)				Prepared & Analyzed: 03/27/2018						
Fluoride	2.0	0.50	mg/L	2.000		102	90-110	1	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110	0.3	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500		92	90-110	3	10	
Sulfate	12	5.0	mg/L	12.50		97	90-110	0.02	10	
Matrix Spike (1803274-MS1)	**Source: 18C0637-02**			Prepared: 03/27/2018 Analyzed: 03/28/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.044	103	80-120			
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	1.2	95	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120			
Sulfate	14	5.0	mg/L	12.50	2.2	91	80-120			
Matrix Spike (1803274-MS2)	**Source: 18C0647-08**			Prepared: 03/27/2018 Analyzed: 03/28/2018						
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.22	95	80-120			
Sulfate	14	5.0	mg/L	12.50	2.2	91	80-120			
Matrix Spike Dup (1803274-MSD1)	**Source: 18C0637-02**			Prepared: 03/27/2018 Analyzed: 03/28/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.044	103	80-120	0.5	10	
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	1.2	94	80-120	0.9	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	90	80-120	0.4	10	
Sulfate	13	5.0	mg/L	12.50	2.2	90	80-120	1	10	
Matrix Spike Dup (1803274-MSD2)	**Source: 18C0647-08**			Prepared: 03/27/2018 Analyzed: 03/28/2018						
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.22	95	80-120	0.3	10	
Sulfate	14	5.0	mg/L	12.50	2.2	91	80-120	0.02	10	

TURNER LABORATORIES INC.

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18C0641 DATE 3/27/18 PAGE ____ OF ____

PROJECT NAME: Surface Water
CONTACT NAME : Johnny Pappas
COMPANY NAME : Arizona Mining
ADDRESS : 3845 N Business Center Drive, Ste 115
CITY Tucson STATE AZ ZIP CODE 85705
PHONE 520-235-5563 FAX
SAMPLER'S SIGNATURE Edgar Peralta.

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	*** See Attachment
POC#2-32718	3-27-18	0945		Groundwater	4	x
JA#132718	3-27-18	1125		GROUNDWATER	4	X

1. RELINQUISHED BY: Edgar Peralta.
Signature
Printed Name
Firm 3/27/18 1351
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature Joseph Catale
Printed Name
Firm TURNER LABORATORIES, INC.
3/27/18 1351
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 4
Temperature 4.4
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☒
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

POC #2 – MW3
Monthly

LABORATORY			
Analyte – ICP/MS	**Total**	**Dissolved**	**Other**
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: March 27, 2018
Sample Received: March 28, 2018
Analysis Completed: August 20, 2020

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18C0641-01	4.8 ± 1.3	< 0.5	< 0.6	< 0.6

Date of Analysis	4/4/2018	3/30/2018	3/30/2018	3/30/2018

4/10/2018

Jeremy Russell, BSE Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ____________

PWS Name: ____________

Sample Date: March 27, 2018

Sample Time: 9:45 (24 hour clock)

Owner/Contact Person: ____________

Owner/Contact Fax Number: ____________

Owner/Contact Phone Number: ____________

Sample Collection Point

☐ EPDS # ____________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ____________

Date Q2 collected: ____________

Date Q3 collected: ____________

Date Q4 collected: ____________

RADIOCHEMICAL ANALYSIS

\>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		3 pCi/L	Gross Alpha	4002	4/4/2018	4.8 ± 1.3		
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	3/30/2018	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	3/30/2018	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	3/30/2018	< 0.6		

LABORATORY INFORMATION

\>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60127

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18C0641-01

Authorized Signature: ____________

Date Public Water System Notified: ____________

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18C0641

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18C0641-01 Drinking Water Sampled:03/27/2018 09:45		[redacted]	
Radiochemistry, Radium 226/228	04/26/2018 09:45		
Radiochemistry, Gross Alpha	09/23/2018 09:45		
Containers Supplied: #60127			
Sample ID: 18C0641-02 Drinking Water Sampled:03/27/2018 11:25		[redacted]	
Radiochemistry, Radium 226/228	04/26/2018 11:25		Dissolved
Radiochemistry, Gross Alpha	09/23/2018 11:25		Dissolved
Containers Supplied: #60128			

#60127 3/28/18

Released By	Date	Received By	Date
	3/28/18 16:00	UPS	3/28/18 16:00

Page 1 of 1

TURNER
LABORATORIES INC.

May 18, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18D0656
Order Name: Surface Water

RE: Surface Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 04/26/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Max DiSante
Laboratory Director

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

Order: Surface Water

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18D0656-01	POC#2-42618	Ground Water	04/26/2018 0920

Client:	Arizona Minerals Inc.
Project:	Surface Water
Work Order:	18D0656
Date Received:	04/26/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Lab Sample ID: 18D0656-01

Client Sample ID: POC#2-42618
Collection Date/Time: 04/26/2018 0920
Matrix: Ground Water
Order Name: Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	2.0		0.30		mg/L	1	05/01/2018 1015	05/04/2018 1219	MH
Manganese	27		0.20		mg/L	10	05/01/2018 1015	05/09/2018 1006	MH
Zinc	6.2		0.40		mg/L	10	05/01/2018 1015	05/09/2018 1006	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Arsenic	0.0094		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Barium	0.020		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Beryllium	0.00053		0.00025		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Cadmium	0.0064		0.00025		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Chromium	0.00082		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Copper	0.00090		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Lead	0.0026		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Nickel	0.070		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Selenium	0.0017	0.00025	0.0025	E4	mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
Thallium	ND		0.00050		mg/L	1	05/01/2018 1015	05/07/2018 1219	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND		0.0010		mg/L	1	05/09/2018 0930	05/09/2018 1346	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.85		0.50		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	04/27/2018 0844	04/27/2018 1103	AP
Sulfate	2200		1000		mg/L	200	04/27/2018 0844	04/27/2018 1622	AP
Cyanide-E335.4									
Cyanide	ND		0.10		mg/L	1	05/07/2018 0845	05/08/2018 1600	AP
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2-42618
Project:	Surface Water	**Collection Date/Time:**	04/26/2018 0920
Work Order:	18D0656	**Matrix:**	Ground Water
Lab Sample ID:	18D0656-01	**Order Name:**	Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	05/03/2018 1030	05/03/2018 1210	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	04/30/2018 0820	05/02/2018 0830	EJ

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805051 - E 200.7 (4.4)										
Blank (1805051-BLK1)				Prepared & Analyzed: 05/04/2018						
Iron	ND	0.30	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1805051-BS1)				Prepared & Analyzed: 05/04/2018						
Iron	1.0	0.30	mg/L	1.000		104	85-115			
Manganese	0.54	0.020	mg/L	0.5000		108	85-115			
Zinc	0.54	0.040	mg/L	0.5000		108	85-115			
LCS Dup (1805051-BSD1)				Prepared & Analyzed: 05/04/2018						
Iron	1.0	0.30	mg/L	1.000		105	85-115	0.5	20	
Manganese	0.53	0.020	mg/L	0.5000		106	85-115	2	20	
Zinc	0.53	0.040	mg/L	0.5000		106	85-115	2	20	
Matrix Spike (1805051-MS1)	**Source: 18D0619-01**			Prepared & Analyzed: 05/04/2018						
Iron	1.1	0.30	mg/L	1.000	0.028	105	70-130			
Manganese	0.52	0.020	mg/L	0.5000	ND	105	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.012	104	70-130			
Matrix Spike (1805051-MS2)	**Source: 18E0021-01**			Prepared & Analyzed: 05/04/2018						
Iron	1.0	0.30	mg/L	1.000	0.0060	101	70-130			
Manganese	0.51	0.020	mg/L	0.5000	ND	102	70-130			
Zinc	0.51	0.040	mg/L	0.5000	ND	102	70-130			
Batch 1805069 - E 200.8 (5.4)										
Blank (1805069-BLK1)				Prepared & Analyzed: 05/07/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805069 - E 200.8 (5.4)										
LCS (1805069-BS1)				Prepared & Analyzed: 05/07/2018						
Antimony	0.048	0.00050	mg/L	0.05000		96	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.049	0.00025	mg/L	0.05000		97	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115			
Selenium	0.051	0.0025	mg/L	0.05000		103	85-115			
Thallium	0.050	0.00050	mg/L	0.05000		101	85-115			
LCS Dup (1805069-BSD1)				Prepared & Analyzed: 05/07/2018						
Antimony	0.048	0.00050	mg/L	0.05000		96	85-115	0.7	20	
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	0.8	20	
Barium	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Beryllium	0.049	0.00025	mg/L	0.05000		97	85-115	0.2	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	0.2	20	
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115	0.4	20	
Copper	0.052	0.00050	mg/L	0.05000		105	85-115	2	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	0.1	20	
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115	0.8	20	
Selenium	0.052	0.0025	mg/L	0.05000		104	85-115	2	20	
Thallium	0.050	0.00050	mg/L	0.05000		101	85-115	0.06	20	
Matrix Spike (1805069-MS1)		**Source: 18D0693-01**		Prepared & Analyzed: 05/07/2018						
Antimony	0.045	0.00050	mg/L	0.05000	0.00024	90	70-130			
Arsenic	0.056	0.00050	mg/L	0.05000	0.0035	104	70-130			
Barium	0.16	0.00050	mg/L	0.05000	0.12	94	70-130			
Beryllium	0.045	0.00025	mg/L	0.05000	0.000029	90	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	ND	94	70-130			
Chromium	0.049	0.00050	mg/L	0.05000	0.00052	98	70-130			
Copper	0.051	0.00050	mg/L	0.05000	0.0020	98	70-130			
Lead	0.047	0.00050	mg/L	0.05000	0.00016	94	70-130			
Nickel	0.049	0.00050	mg/L	0.05000	0.0018	94	70-130			
Selenium	0.057	0.0025	mg/L	0.05000	ND	114	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000038	96	70-130			
Batch 1805102 - E 245.1										
Blank (1805102-BLK1)				Prepared & Analyzed: 05/09/2018						
Mercury	ND	0.0010	mg/L							
LCS (1805102-BS1)				Prepared & Analyzed: 05/09/2018						
Mercury	0.0051	0.0010	mg/L	0.005000		103	85-115			
LCS Dup (1805102-BSD1)				Prepared & Analyzed: 05/09/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		99	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805102 - E 245.1										
Matrix Spike (1805102-MS1)		**Source: 18E0047-03**		Prepared & Analyzed: 05/09/2018						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115			
Matrix Spike Dup (1805102-MSD1)		**Source: 18E0047-03**		Prepared & Analyzed: 05/09/2018						
Mercury	0.0050	0.0010	mg/L	0.005000	ND	101	85-115	2	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1804289 - SM2540 C										
Duplicate (1804289-DUP1)		**Source: 18D0628-13**		Prepared: 04/30/2018 Analyzed: 05/03/2018						
Total Dissolved Solids (Residue, Filterable)	370	20	mg/L		370			0	5	
Duplicate (1804289-DUP2)		**Source: 18D0628-14**		Prepared: 04/30/2018 Analyzed: 05/03/2018						
Total Dissolved Solids (Residue, Filterable)	340	20	mg/L		340			0	5	
Batch 1805027 - SM2320B										
LCS (1805027-BS1)				Prepared & Analyzed: 05/03/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110			
LCS Dup (1805027-BSD1)				Prepared & Analyzed: 05/03/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110	0	10	
Matrix Spike (1805027-MS1)		**Source: 18D0606-02**		Prepared & Analyzed: 05/03/2018						
Alkalinity, Total (As CaCO3)	370	2.0	mg/L	250.0	130	96	85-115			
Matrix Spike Dup (1805027-MSD1)		**Source: 18D0606-02**		Prepared & Analyzed: 05/03/2018						
Alkalinity, Total (As CaCO3)	370	2.0	mg/L	250.0	130	95	85-115	0.5	10	
Batch 1805085 - E335.4										
Blank (1805085-BLK1)				Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	ND	0.10	mg/L							
LCS (1805085-BS1)				Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	1.9	0.10	mg/L	2.000		93	90-110			
LCS Dup (1805085-BSD1)				Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	1.8	0.10	mg/L	2.000		92	90-110	0.9	20	
Matrix Spike (1805085-MS1)		**Source: 18E0099-01**		Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	2.0	0.10	mg/L	2.000	ND	99	90-110			
Matrix Spike Dup (1805085-MSD1)		**Source: 18E0099-01**		Prepared: 05/07/2018 Analyzed: 05/08/2018						
Cyanide	2.1	0.10	mg/L	2.000	ND	105	90-110	7	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18D0656
Date Received: 04/26/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1804274 - E300.0 (2.1)										
Blank (1804274-BLK1)				Prepared & Analyzed: 04/27/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1804274-BS1)				Prepared & Analyzed: 04/27/2018						
Fluoride	2.1	0.50	mg/L	2.000		105	90-110			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		95	90-110			
Sulfate	12	5.0	mg/L	12.50		97	90-110			
LCS Dup (1804274-BSD1)				Prepared & Analyzed: 04/27/2018						
Fluoride	2.1	0.50	mg/L	2.000		106	90-110	0.7	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110	0.08	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		95	90-110	0.04	10	
Sulfate	12	5.0	mg/L	12.50		97	90-110	0.07	10	
Matrix Spike (1804274-MS1)	**Source: 18D0678-01**			Prepared & Analyzed: 04/27/2018						
Fluoride	2.4	0.50	mg/L	2.000	0.31	105	80-120			
Nitrogen, Nitrate (As N)	5.6	0.50	mg/L	5.000	0.88	94	80-120			
Nitrogen, Nitrite (As N)	2.0	0.10	mg/L	2.500	ND	80	80-120			
Matrix Spike (1804274-MS2)	**Source: 18D0678-01RE1**			Prepared & Analyzed: 04/27/2018						
Sulfate	26		mg/L	12.50	15	90	80-120			
Matrix Spike Dup (1804274-MSD1)	**Source: 18D0678-01**			Prepared & Analyzed: 04/27/2018						
Fluoride	2.4	0.50	mg/L	2.000	0.31	107	80-120	2	10	
Nitrogen, Nitrate (As N)	5.6	0.50	mg/L	5.000	0.88	95	80-120	1	10	
Nitrogen, Nitrite (As N)	2.0	0.10	mg/L	2.500	ND	81	80-120	1	10	
Matrix Spike Dup (1804274-MSD2)	**Source: 18D0678-01RE1**			Prepared & Analyzed: 04/27/2018						
Sulfate	26		mg/L	12.50	15	91	80-120	0.2	10	

TURNER LABORATORIES INC.

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18D0656 DATE 4/26/18 PAGE 1 OF 1

PROJECT NAME: Surface Water
CONTACT NAME : Johnny Pappas
COMPANY NAME : Arizona Mining
ADDRESS : 3845 N Business Center Drive, Ste 115
CITY Tucson STATE AZ ZIP CODE 85705
PHONE 520-235-5563 FAX
SAMPLER'S SIGNATURE EDGAR PERALTA

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	*** See Attachment
POC#2-42618	4-26-18	0920		Groundwater	4	x
JA#142618	4-26-18	1040		GROUNDWATER	4	X

1. RELINQUISHED BY: EDGAR PERALTA
Signature
Printed Name
Firm
4-26-18 1406
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Martha Howard
Printed Name
TURNER LABORATORIES, INC.
Firm
4/26/18 14:06
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 8
Temperature 1.1
☒ Wet Ice ☐ Blue Ice

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☒
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☒	Appropriate Head Space ☒
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☒	Received Within Hold Time ☒

Client called to request JA#142618 be canceled.
KMB

LABORATORY			
Analyte – ICP/MS	**Total**	**Dissolved**	**Other**
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: April 26, 2018
Sample Received: May 01, 2018
Analysis Completed: May 17, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18D0656-01	3.1 ± 1.2	0.6 ± 0.2	< 0.6	0.6 ± 0.2

Date of Analysis	5/15/2018	5/4/2018	5/4/2018	5/4/2018

Robert L. Metzger
5/17/2018
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04

PWS Name:

Sample Date: April 26, 2018

Sample Time: 9:20 (24 hour clock)

Owner/Contact Person:

Owner/Contact Fax Number:

Owner/Contact Phone Number:

Sample Collection Point

☐ EPDS #

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected:

Date Q2 collected:

Date Q3 collected:

Date Q4 collected:

RADIOCHEMICAL ANALYSIS

\>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	5/15/2018	3.1 ± 1.2	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	5/4/2018	0.6 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/4/2018	0.6 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/4/2018	< 0.6	

LABORATORY INFORMATION

\>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60313

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18D0656-01

Authorized Signature:

Date Public Water System Notified:

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18D0656

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18D0656-02 Drinking Water Sampled:04/26/2018 09:20	[redacted]		
Radiochemistry, Radium 226/228	05/26/2018 09:20		
Containers Supplied:			

#60313

4/30/18 16:00 UPS 4/30/18 16:00
Released By Date Received By Date

Scarlet D Costa 5/1/18
Released By Date Received By Date

TURNER
LABORATORIES INC.

June 15, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18E0634
Order Name: Surface Water

RE: Surface Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 05/29/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Max DiSante
Laboratory Director

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

Order: Surface Water

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18E0634-01	POC#2-052918	Ground Water	05/29/2018 1346

Client:	Arizona Minerals Inc.
Project:	Surface Water
Work Order:	18E0634
Date Received:	05/29/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

D5	Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
M7	Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2-052918
Project:	Surface Water	**Collection Date/Time:**	05/29/2018 1346
Work Order:	18E0634	**Matrix:**	Ground Water
Lab Sample ID:	18E0634-01	**Order Name:**	Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	2200		62		mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	550		20	M3	mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
Iron	1.4		0.30		mg/L	1	05/31/2018 0950	05/31/2018 1258	MH
Magnesium	210		3.0	M3	mg/L	1	05/31/2018 0950	05/31/2018 1258	MH
Manganese	25		0.10	M3	mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
Zinc	5.9		0.20	M3	mg/L	5	05/31/2018 0950	05/31/2018 1413	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Arsenic	0.0087		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Barium	0.018		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Beryllium	ND		0.0013	D5	mg/L	5	05/31/2018 0950	06/11/2018 1948	MH
Cadmium	0.0058		0.00025		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Chromium	ND		0.0010	D5	mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
Copper	ND		0.00050		mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Lead	ND		0.0010	D5	mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
Nickel	0.064		0.0010		mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
Selenium	0.0018	0.00025	0.0025	E4	mg/L	1	05/31/2018 0950	06/07/2018 1901	MH
Thallium	ND		0.0010	D5	mg/L	2	05/31/2018 0950	06/11/2018 1242	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND		0.0010		mg/L	1	06/05/2018 1050	06/05/2018 1535	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	05/29/2018 1635	05/29/2018 2107	AP
Sulfate	2200		500		mg/L	100	06/01/2018 1050	06/02/2018 0227	AP
Cyanide-E335.4									

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2-052918
Project:	Surface Water	**Collection Date/Time:**	05/29/2018 1346
Work Order:	18E0634	**Matrix:**	Ground Water
Lab Sample ID:	18E0634-01	**Order Name:**	Surface Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Cyanide	ND		0.10		mg/L	1	06/01/2018 0845	06/04/2018 1515	AP
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	190		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Alkalinity, Total (As CaCO3)	190		2.0		mg/L	1	05/30/2018 1410	05/30/2018 1700	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	05/30/2018 0845	06/01/2018 0830	EJ

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805338 - E 200.7 (4.4)										
Blank (1805338-BLK1)				Prepared & Analyzed: 05/31/2018						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1805338-BS1)				Prepared & Analyzed: 05/31/2018						
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Iron	0.94	0.30	mg/L	1.000		94	85-115			
Magnesium	9.6	3.0	mg/L	10.00		96	85-115			
Manganese	0.50	0.020	mg/L	0.5000		99	85-115			
Zinc	0.49	0.040	mg/L	0.5000		99	85-115			
LCS Dup (1805338-BSD1)				Prepared & Analyzed: 05/31/2018						
Calcium	9.6	4.0	mg/L	10.00		96	85-115	0.05	20	
Iron	0.95	0.30	mg/L	1.000		95	85-115	1	20	
Magnesium	9.6	3.0	mg/L	10.00		96	85-115	0.2	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	0.7	20	
Zinc	0.50	0.040	mg/L	0.5000		99	85-115	0.9	20	
Matrix Spike (1805338-MS1)	**Source: 18E0634-01**			Prepared & Analyzed: 05/31/2018						
Calcium	540	20	mg/L	10.00	550	NR	70-130			M3
Iron	2.7	0.30	mg/L	1.000	1.4	127	70-130			
Magnesium	260	3.0	mg/L	10.00	210	512	70-130			M3
Manganese	25	0.10	mg/L	0.5000	25	NR	70-130			M3
Zinc	6.1	0.20	mg/L	0.5000	5.9	39	70-130			M3
Batch 1806041 - E 245.1										
Blank (1806041-BLK1)				Prepared & Analyzed: 06/05/2018						
Mercury	ND	0.0010	mg/L							
LCS (1806041-BS1)				Prepared & Analyzed: 06/05/2018						
Mercury	0.0054	0.0010	mg/L	0.005000		108	85-115			
LCS Dup (1806041-BSD1)				Prepared & Analyzed: 06/05/2018						
Mercury	0.0054	0.0010	mg/L	0.005000		109	85-115	0.9	20	
Matrix Spike (1806041-MS1)	**Source: 18E0641-01**			Prepared & Analyzed: 06/05/2018						
Mercury	0.0054	0.0010	mg/L	0.005000	ND	108	85-115			
Matrix Spike Dup (1806041-MSD1)	**Source: 18E0641-01**			Prepared & Analyzed: 06/05/2018						
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	85-115	1	20	
Batch 1806064 - E 200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806064 - E 200.8 (5.4)										
Blank (1806064-BLK1)				Prepared & Analyzed: 06/07/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1806064-BS1)				Prepared & Analyzed: 06/07/2018						
Antimony	0.049	0.00050	mg/L	0.05000		99	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.056	0.00025	mg/L	0.05000		112	85-115			
Cadmium	0.052	0.00025	mg/L	0.05000		103	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		101	85-115			
Copper	0.050	0.00050	mg/L	0.05000		99	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.049	0.00050	mg/L	0.05000		99	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		101	85-115			
Thallium	0.053	0.00050	mg/L	0.05000		106	85-115			
LCS Dup (1806064-BSD1)				Prepared & Analyzed: 06/07/2018						
Antimony	0.050	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Barium	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Beryllium	0.056	0.00025	mg/L	0.05000		112	85-115	0.5	20	
Cadmium	0.050	0.00025	mg/L	0.05000		101	85-115	2	20	
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	0.1	20	
Nickel	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Selenium	0.051	0.0025	mg/L	0.05000		101	85-115	0.5	20	
Thallium	0.053	0.00050	mg/L	0.05000		106	85-115	0.04	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806064 - E 200.8 (5.4)										
Matrix Spike (1806064-MS1)		**Source: 18E0684-01**		Prepared & Analyzed: 06/07/2018						
Antimony	0.047	0.00050	mg/L	0.05000	0.00041	94	70-130			
Arsenic	0.054	0.00050	mg/L	0.05000	0.0034	101	70-130			
Barium	0.14	0.00050	mg/L	0.05000	0.089	95	70-130			
Beryllium	0.040	0.00025	mg/L	0.05000	0.000028	80	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	97	70-130			
Chromium	0.056	0.00050	mg/L	0.05000	0.00068	110	70-130			
Copper	0.054	0.00050	mg/L	0.05000	0.0050	97	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.0047	90	70-130			
Nickel	0.060	0.00050	mg/L	0.05000	0.0037	112	70-130			
Selenium	0.055	0.0025	mg/L	0.05000	0.00052	108	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000032	97	70-130			

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805315 - SM2540 C										
Duplicate (1805315-DUP1)		**Source: 18E0660-01**		Prepared: 05/30/2018 Analyzed: 05/31/2018						
Total Dissolved Solids (Residue, Filterable)	370	20	mg/L		370			1	5	
Duplicate (1805315-DUP2)		**Source: 18E0659-01**		Prepared: 05/30/2018 Analyzed: 06/01/2018						
Total Dissolved Solids (Residue, Filterable)	1500	20	mg/L		1500			0.4	5	
Batch 1805331 - SM2320B										
LCS (1805331-BS1)				Prepared & Analyzed: 05/30/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110			
LCS Dup (1805331-BSD1)				Prepared & Analyzed: 05/30/2018						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		98	90-110	2	10	
Matrix Spike (1805331-MS1)		**Source: 18E0631-01**		Prepared & Analyzed: 05/30/2018						
Alkalinity, Total (As CaCO3)	340	2.0	mg/L	250.0	100	95	85-115			
Matrix Spike Dup (1805331-MSD1)		**Source: 18E0631-01**		Prepared & Analyzed: 05/30/2018						
Alkalinity, Total (As CaCO3)	350	2.0	mg/L	250.0	100	98	85-115	2	10	
Batch 1806021 - E335.4										
Blank (1806021-BLK1)				Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	ND	0.10	mg/L							
LCS (1806021-BS1)				Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	1.9	0.10	mg/L	2.000		93	90-110			
LCS Dup (1806021-BSD1)				Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	1.9	0.10	mg/L	2.000		94	90-110	0.9	20	
Matrix Spike (1806021-MS1)		**Source: 18E0634-01**		Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	1.8	0.10	mg/L	2.000	ND	90	90-110			
Matrix Spike Dup (1806021-MSD1)		**Source: 18E0634-01**		Prepared: 06/01/2018 Analyzed: 06/04/2018						
Cyanide	1.9	0.10	mg/L	2.000	ND	96	90-110	6	20	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805307 - E300.0 (2.1)										
Blank (1805307-BLK1)				Prepared & Analyzed: 05/29/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1805307-BS1)				Prepared & Analyzed: 05/29/2018						
Fluoride	2.1	0.50	mg/L	2.000		104	90-110			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		100	90-110			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		102	90-110			
Sulfate	12	5.0	mg/L	12.50		99	90-110			
LCS Dup (1805307-BSD1)				Prepared & Analyzed: 05/29/2018						
Fluoride	2.1	0.50	mg/L	2.000		105	90-110	1	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		100	90-110	0.3	10	
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		102	90-110	0	10	
Sulfate	12	5.0	mg/L	12.50		99	90-110	0.06	10	
Matrix Spike (1805307-MS1)	**Source: 18E0642-01**			Prepared: 05/29/2018 Analyzed: 05/30/2018						
Fluoride	2.6	0.50	mg/L	2.000	0.48	107	80-120			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.15	98	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	96	80-120			
Matrix Spike (1805307-MS2)	**Source: 18E0660-01**			Prepared: 05/29/2018 Analyzed: 05/30/2018						
Fluoride	2.7	0.50	mg/L	2.000	0.57	105	80-120			
Nitrogen, Nitrate (As N)	6.1	0.50	mg/L	5.000	1.1	99	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120			
Matrix Spike (1805307-MS3)	**Source: 18E0634-01**			Prepared & Analyzed: 06/06/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.19	100	80-120			
Nitrogen, Nitrate (As N)	4.7	0.50	mg/L	5.000	0.090	93	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	94	80-120			
Matrix Spike (1805307-MS5)	**Source: 18E0666-01**			Prepared: 06/07/2018 Analyzed: 06/08/2018						
Sulfate	37	5.0	mg/L	12.50	28	74	80-120			M7
Matrix Spike Dup (1805307-MSD1)	**Source: 18E0642-01**			Prepared: 05/29/2018 Analyzed: 05/30/2018						
Fluoride	2.6	0.50	mg/L	2.000	0.48	107	80-120	0.6	10	
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000	0.15	98	80-120	0.4	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	97	80-120	0.5	10	
Matrix Spike Dup (1805307-MSD2)	**Source: 18E0660-01**			Prepared: 05/29/2018 Analyzed: 05/30/2018						
Fluoride	2.7	0.50	mg/L	2.000	0.57	106	80-120	1	10	
Nitrogen, Nitrate (As N)	6.2	0.50	mg/L	5.000	1.1	101	80-120	1	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	93	80-120	2	10	
Matrix Spike Dup (1805307-MSD3)	**Source: 18E0634-01**			Prepared & Analyzed: 06/06/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.19	100	80-120	0.09	10	
Nitrogen, Nitrate (As N)	4.7	0.50	mg/L	5.000	0.090	93	80-120	0.2	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	94	80-120	0.3	10	

Client: Arizona Minerals Inc.
Project: Surface Water
Work Order: 18E0634
Date Received: 05/29/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1805307 - E300.0 (2.1)										
Matrix Spike Dup (1805307-MSD5)	**Source: 18E0666-01**			Prepared: 06/07/2018 Analyzed: 06/08/2018						
Sulfate	37	5.0	mg/L	12.50	28	74	80-120	0.1	10	M7

2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18E0634 DATE 5-29-18 PAGE ____ OF ____

PROJECT NAME ~~[illegible]~~ Surface water # ____

CONTACT NAME Johnny Pappas

COMPANY NAME Arizona mining

ADDRESS 3845 N Buisness Center Drive Ste 115

ZIP 85705 PHONE 520-235-3563 EMAIL ____

SAMPLER'S SIGNATURE ____

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	Base Neutrals 625/8270 ☐ Acids ☐	Volatile Organics ☐ 624 ☐ 524.2 ☐ 8260	TTHMS ☐ HAAS ☐	☐ Chloride ☐ Sulfate ☐ Resistivity	NO_3 ☐ NO_2 ☐ TKN ☐	☐ TPH 1664 ☐ Oil & Grease	TCLP Analysis VOA ☐ SemiVOA ☐ Pest. ☐	Metals TCLP ☐ Dissolved ☐ RCRA8 ☐ Total ☐	Cyanide Total ☐ Amen. ☐ WAD ☐	SDWA-INORGANICS PRIMARY ☐ SECONDARY ☐	Coliform MPN ☐ PA ☐ Fecal ☐	pH ☐ Cl_2 ☐ O_2 ☐ Turb ☐	COD ☐ TSS ☐ BOD ☐			
Poc#2 052918	5/29/18	1:46		Ground water																	
					See Attachment																

1. RELINQUISHED BY:
Signature
Printed Name Robert Dodson
Firm AMI
Date/Time 5/29/15 1:46

2. RECEIVED BY:
Signature ____
Printed Name ____
Firm ____
Date/Time ____

TURNAROUND REQUIREMENTS:
____ Standard (approx. 10 days)*
____ Next Day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 4
Temperature 16.1
☒ Wet Ice
☐ Ambient
☒ ~~Blue Ice~~ JK

3. RELINQUISHED BY:
Signature ____
Printed Name ____
Firm ____
Date/Time ____

4. RECEIVED BY:
Signature
Printed Name Joseph Catalaw
Firm TURNER LABORATORIES, INC.
Date/Time 5-29-18 1346

* LEGEND
SAMPLE MATRIX
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

Compliance Analysis: ☐ Yes ☐ No
ADEQ Forms: ☐ Yes ☐ No
Mail ADEQ Forms: ☐ Yes ☐ No

Custody Seals ☐
Container Intact ☒
COC / Labels Agree ☒

Preservation Confirmation ☒
Appropriate Head Space ☒
Received Within Hold Time ☒

SPECIAL INSTRUCTIONS/COMMENTS:

POC #2 – MW3
Monthly

LABORATORY			
Analyte – ICP/MS	**Total**	**Dissolved**	**Other**
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		
Hardness			X

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water
Turbidity

MONITORING WELL PUMPED SAMPLE COLLECTION FORM

LOCATION
Project Name: AMI
Well Name: POC#2
LocID:
Project #:
Date: 5/29/18
Recorded By:
Checked By:

EQUIPMENT
Water Quality Meter Type/ID #: OAKTON
Water Quality Meter Calibrated Today? Y / N
Water Level Indicator Type/ID #: WATERLINE 500.01
Sampling Equipment:
Carbon Canister: NO
Equipment Decon: yes (alconox)

WELL INFO
Casing I.D. (in) [a]: 2
Total Well Depth (ft) [d]: 86
Water Level Measuring Point (ft, bls):
"+" = below land surface
"-" = above land surface +2
Unit Casing Volume (gal / lin ft) [b]: 0.16
Water Column Thickness (ft) [d-c]: 65.5
Key Number, if necessary to access well: NA
Initial Depth to Water (ft) [c]: 20.5
Well Volume (gal) ([d-c] x b): 9.52
Ground Condition of Well: Good
Remarks:

CASING INFO

Casing I.D. (in) [a]:	1.5	**2.0**	2.2	3.0	4.0	4.3	**5.0**	6.0	7.0	8.0	**10.0**
Unit Casing Volume (gal/lin ft) [b]:	0.09	**0.16**	0.20	0.37	0.65	0.75	**1.0**	1.5	2.0	2.6	**4.1**

Sample ID #(s)/Time(s)
Sample ID = POC#2-052918
Sample Time = 10:25 a.m.
Depth of Pump Inlet = 60 feet btoc
POC#2 052918

No. of Containers/Volume/Type	Preserv.	Filtered (Y/N)	Analysis
Cubtainer	NP	Lab Filtered	Radiological
500ml	NP	N	Major Cations/Anions wet chem. D Metals
250-ml	HNO3	N	T Metals
500-ml	NaOH	N	Cyanide

Pump Type or Bailer: Electric submersible pump

Discharge:
___ Water Discharged Container: Tank onsite
Water Discharged Directly Onto Site

Time (24 hr)	Water Level (ft bmp)	Odor (Y/N)	Volume Removed (gal)	Pumping Rate (gpm)	Flow Meter Read (gal)	Temp (C)	Conductivity (uS/cm)	pH	Turbidity (NTU)	Color	Remarks (clarity, etc.)
09:56	20.5	N	0	2.5		23.1	2841	6.52	23	clear	Pump on/
10:02	34.1	N	11	2.5		21.3	2850	6.65	22.3	clear	
10:08	36.7	N	20	2.5		20.9	3049	6.64	16.3	clear	
10:15	37.8	N	32	2.5		21.6	3093	6.66	10.1	clear	
10:20	38.3	N	39	2.5		19.8	2991	6.64	7.38	clear	
10:26	29.3	N	44								pump off / **after** pump is off, record: water level, volume remove, and flow meter reading

Stabilization: +/- 10%, +/- 0.2 pH, +/- 10% conductivity, for 2 consecutive purge volumes

PLEASE COMPLETE THE FORM FOR ALL FIELDS

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: May 29, 2018
Sample Received: June 01, 2018
Analysis Completed: June 14, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18E0634-01	3.7 ± 1.1	< 0.4	< 0.6	< 0.6

Date of Analysis	6/4/2018	6/6/2018	6/6/2018	6/6/2018

6/14/2018

Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ____________

PWS Name: ____________

Sample Date: May 29, 2018

Sample Time: 13:46 (24 hour clock)

Owner/Contact Person: ____________

Owner/Contact Fax Number: ____________

Owner/Contact Phone Number: ____________

Sample Collection Point

☐ EPDS # ____________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ____________

Date Q2 collected: ____________

Date Q3 collected: ____________

Date Q4 collected: ____________

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		3 pCi/L	Gross Alpha	4002	6/4/2018	3.7 ± 1.1		
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	6/6/2018	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	6/6/2018	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	6/6/2018	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60455

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18E0634-01

Authorized Signature:

Date Public Water System Notified: ____________

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18E0634

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18E0634-01 Drinking Water Sampled:05/29/2018 13:46	[redacted]		
Radiochemistry, Radium 226/228	06/28/2018 13:46		
Radiochemistry, Gross Alpha	11/25/2018 13:46	60455	
Containers Supplied			

Released By	Date		Received By	Date	
	5-30-18	16:00	UPS	5-30-18	16:00
Released By	Date		Received By	Date	
			Scarlet D Carter	6/1/18	

TURNER
LABORATORIES INC.

July 11, 2018

Johnny Pappas
Arizona Minerals Inc.
3845 North Business Center Drive, Suite 115
Tucson, AZ 85705

TEL (802) 235-5563
FAX

Work Order No.: 18F0594

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 06/21/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Business Development

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18F0594-01	POC#2	Ground Water	06/21/2018 1211

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

D5	Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Lab Sample ID: 18F0594-01

Client Sample ID: POC#2
Collection Date/Time: 06/21/2018 1211
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	1.6		0.30		mg/L	1	06/22/2018 1000	06/22/2018 1219	MH
Manganese	28		0.10		mg/L	5	06/22/2018 1000	06/22/2018 1255	MH
Zinc	6.9		0.20		mg/L	5	06/22/2018 1000	06/22/2018 1255	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.0010	D5	mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Arsenic	0.0078		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Barium	0.018		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Beryllium	0.00061		0.00050		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Cadmium	0.0080		0.00050		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Chromium	ND		0.0010	D5	mg/L	2	06/22/2018 1000	06/28/2018 1344	MH
Copper	0.0020		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Lead	0.0036		0.0010		mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Nickel	0.071		0.0010		mg/L	2	06/22/2018 1000	06/28/2018 1344	MH
Selenium	0.0020		0.0050	D5, E4	mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
Thallium	ND		0.0010	D5	mg/L	2	06/22/2018 1000	06/27/2018 1437	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	06/25/2018 1050	06/25/2018 1725	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.80		0.50		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	06/21/2018 1648	06/21/2018 1648	AP
Sulfate	2100		500		mg/L	100	06/21/2018 1329	06/22/2018 1328	AP
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2
Project:	Ground Water	**Collection Date/Time:**	06/21/2018 1211
Work Order:	18F0594	**Matrix:**	Ground Water
Lab Sample ID:	18F0594-01		

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	07/02/2018 1615	07/02/2018 1650	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	06/28/2018 0830	06/29/2018 1345	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	06/22/2018 0845	06/22/2018 1525	AP

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806235 - E 200.7 (4.4)										
Blank (1806235-BLK1)				Prepared & Analyzed: 06/22/2018						
Iron	ND	0.30	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1806235-BS1)				Prepared & Analyzed: 06/22/2018						
Iron	1.0	0.30	mg/L	1.000		101	85-115			
Manganese	0.53	0.020	mg/L	0.5000		106	85-115			
Zinc	0.52	0.040	mg/L	0.5000		104	85-115			
LCS Dup (1806235-BSD1)				Prepared & Analyzed: 06/22/2018						
Iron	0.98	0.30	mg/L	1.000		98	85-115	3	20	
Manganese	0.52	0.020	mg/L	0.5000		103	85-115	3	20	
Zinc	0.51	0.040	mg/L	0.5000		102	85-115	2	20	
Matrix Spike (1806235-MS1)	**Source: 18F0566-01**			Prepared & Analyzed: 06/22/2018						
Iron	1.0	0.30	mg/L	1.000	0.034	96	70-130			
Manganese	26	0.40	mg/L	0.5000	26	NR	70-130			M3
Zinc	28	0.80	mg/L	0.5000	29	NR	70-130			M3
Batch 1806246 - E 200.8 (5.4)										
Blank (1806246-BLK1)				Prepared & Analyzed: 06/25/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1806246-BS1)				Prepared & Analyzed: 06/25/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Barium	0.050	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115			
Copper	0.051	0.00050	mg/L	0.05000		102	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115			
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115			
Thallium	0.050	0.00050	mg/L	0.05000		100	85-115			

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806246 - E 200.8 (5.4)										
LCS Dup (1806246-BSD1)				Prepared & Analyzed: 06/25/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115	0.2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	0.04	20	
Barium	0.050	0.00050	mg/L	0.05000		100	85-115	0.4	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.07	20	
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115	0.2	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	0.2	20	
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	0.6	20	
Lead	0.049	0.00050	mg/L	0.05000		97	85-115	1	20	
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115	0.3	20	
Selenium	0.050	0.0025	mg/L	0.05000		100	85-115	0.5	20	
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115	0.7	20	
Matrix Spike (1806246-MS1)	**Source: 18F0412-01**			Prepared & Analyzed: 06/25/2018						
Antimony	0.046	0.00050	mg/L	0.05000	0.00026	91	70-130			
Arsenic	0.049	0.00050	mg/L	0.05000	0.0024	93	70-130			
Barium	0.11	0.00050	mg/L	0.05000	0.067	92	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	0.000047	91	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.000051	94	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.00070	103	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.011	90	70-130			
Lead	0.069	0.00050	mg/L	0.05000	0.026	87	70-130			
Nickel	0.052	0.00050	mg/L	0.05000	0.0018	100	70-130			
Selenium	0.049	0.0025	mg/L	0.05000	0.00028	97	70-130			
Thallium	0.044	0.00050	mg/L	0.05000	ND	89	70-130			
Batch 1806249 - E 245.1										
Blank (1806249-BLK1)				Prepared & Analyzed: 06/25/2018						
Mercury	ND	0.0010	mg/L							
LCS (1806249-BS1)				Prepared & Analyzed: 06/25/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		101	85-115			
LCS Dup (1806249-BSD1)				Prepared & Analyzed: 06/25/2018						
Mercury	0.0051	0.0010	mg/L	0.005000		101	85-115	0.6	20	
Matrix Spike (1806249-MS1)	**Source: 18F0594-01**			Prepared & Analyzed: 06/25/2018						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	103	85-115			
Matrix Spike Dup (1806249-MSD1)	**Source: 18F0594-01**			Prepared & Analyzed: 06/25/2018						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	85-115	0.1	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1806256 - SM4500-CN BE										
Blank (1806256-BLK1)				Prepared & Analyzed: 06/22/2018						
Cyanide	ND	0.10	mg/L							
LCS (1806256-BS1)				Prepared & Analyzed: 06/22/2018						
Cyanide	1.9	0.10	mg/L	2.000		96	90-110			
LCS Dup (1806256-BSD1)				Prepared & Analyzed: 06/22/2018						
Cyanide	1.9	0.10	mg/L	2.000		96	90-110	0.4	20	
Matrix Spike (1806256-MS1)	**Source: 18F0582-01**			Prepared & Analyzed: 06/22/2018						
Cyanide	1.6	0.10	mg/L	2.000	ND	78	70-130			
Matrix Spike Dup (1806256-MSD1)	**Source: 18F0582-01**			Prepared & Analyzed: 06/22/2018						
Cyanide	1.6	0.10	mg/L	2.000	ND	81	70-130	4	20	
Batch 1806286 - SM2540 C										
Duplicate (1806286-DUP1)	**Source: 18F0594-01**			Prepared: 06/28/2018 Analyzed: 07/02/2018						
Total Dissolved Solids (Residue, Filterable)	3300	20	mg/L		3300			0.9	5	
Duplicate (1806286-DUP2)	**Source: 18F0662-01**			Prepared: 06/28/2018 Analyzed: 06/29/2018						
Total Dissolved Solids (Residue, Filterable)	590	20	mg/L		570			2	5	
Batch 1807020 - SM2320B										
LCS (1807020-BS1)				Prepared & Analyzed: 07/02/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110			
LCS Dup (1807020-BSD1)				Prepared & Analyzed: 07/02/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		98	90-110	2	10	
Matrix Spike (1807020-MS1)	**Source: 18F0678-01**			Prepared & Analyzed: 07/02/2018						
Alkalinity, Total (As CaCO3)	330	2.0	mg/L	250.0	96	94	85-115			
Matrix Spike Dup (1807020-MSD1)	**Source: 18F0678-01**			Prepared & Analyzed: 07/02/2018						
Alkalinity, Total (As CaCO3)	340	2.0	mg/L	250.0	96	96	85-115	1	10	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18F0594
Date Received: 06/21/2018

QC Summary

Batch 1806222 - E300.0 (2.1)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Blank (1806222-BLK1)				Prepared & Analyzed: 06/21/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1806222-BS1)				Prepared & Analyzed: 06/21/2018						
Fluoride	1.9	0.50	mg/L	2.000		95	90-110			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		96	90-110			
Sulfate	12	5.0	mg/L	12.50		97	90-110			
LCS Dup (1806222-BSD1)				Prepared & Analyzed: 06/21/2018						
Fluoride	1.9	0.50	mg/L	2.000		96	90-110	1	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		97	90-110	0.3	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		97	90-110	0.7	10	
Sulfate	12	5.0	mg/L	12.50		97	90-110	0.4	10	
Matrix Spike (1806222-MS1)	**Source: 18F0575-01**			Prepared & Analyzed: 06/21/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.25	96	80-120			
Nitrogen, Nitrate (As N)	8.2	0.50	mg/L	5.000	3.3	99	80-120			
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120			
Sulfate	20	5.0	mg/L	12.50	8.1	91	80-120			
Matrix Spike Dup (1806222-MSD1)	**Source: 18F0575-01**			Prepared & Analyzed: 06/21/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.25	96	80-120	0.3	10	
Nitrogen, Nitrate (As N)	8.2	0.50	mg/L	5.000	3.3	99	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.3	0.10	mg/L	2.500	ND	91	80-120	0.1	10	
Sulfate	19	5.0	mg/L	12.50	8.1	90	80-120	0.9	10	

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18F0594 DATE 6/21/18 PAGE 1 OF 3

PROJECT NAME ground water #
CONTACT NAME : Johny pappas
COMPANY NAME : Arizona mining inc
ADDRESS :
CITY Tucson STATE Az ZIP CODE 85719
PHONE FAX
SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	See Atatched
Pond#2 ~~6-21-18~~	6-21-18	12:11 Pm	6-21-18	ground water	4	↓

1. RELINQUISHED BY:
Robert Dodson
Signature
Printed Name
Arizona mining inc
Firm
6-21-18 / 12:24pm
Date/Time

2. RECEIVED BY:
Sarah Richman
Signature
Printed Name
AML
Firm
6/21/18 1224
Date/Time

3. RELINQUISHED BY:
Sarah
Signature
Sarah Richman
Printed Name
AML
Firm
16:24 6-21-18
Date/Time

4. RECEIVED BY:
Signature
Heather Howard
Printed Name
TURNER LABORATORIES, INC.
Firm
6/21/18 16:24
Date/Time

TURNAROUND REQUIREMENTS:
X Standard (approx. 10 days)*
___ Next day ___ 2 Day ___ 5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ___ Y ___ N
P.O. #
Bill to:

SAMPLE RECEIPT:
Total Containers 4
Temperature 0.7
☒ Wet Ice ☐ Blue Ice

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms: ☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☒
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	[✓ ☐]

MONITORING WELL PUMPED SAMPLE COLLECTION FORM

LOCATION	Project Name: AMI	LocID:	Date: 6-21-18
	Well Name: POC#2	Project #: Aquifer Protection permit p-512235	Recorded By: Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: YSI pro plus	Water Level Indicator Type/ID #: GeoTech water meter	Carbon Canister: no
	Water Quality Meter Calibrated Today? [✓ Y] / N	Sampling Equipment: Submersible pump	Equipment Decon: (Alconox)
WELL INFO	Casing I.D. (in) [a]: 2	Unit Casing Volume (gal / lin ft) [b]: 0.16	Initial Depth to Water (ft) [c]: 14.9
	Total Well Depth (ft) [d]: 86	Water Column Thickness (ft) [d-c]: 71.1	Well Volume (gal) ([d-c] x b): 11.37 34.12
	Water Level Measuring Point (ft, bls): "+" = below land surface "-" = above land surface +2	Key Number, if necessary to access well: N/A	Ground Condition of Well: Good
	Remarks:		

CASING INFO											
Casing I.D. (in) [a]:	1.5	**2.0**	2.2	3.0	4.0	4.3	**5.0**	6.0	7.0	8.0	**10.0**
Unit Casing Volume (gal/lin ft) [b]:	0.09	**0.16**	0.20	0.37	0.65	0.75	**1.0**	1.5	2.0	2.6	**4.1**

Sample ID #(s)/Time(s)	**No. of Containers/Volume/Type**	**Preserv.**	Filtered (Y/N)	Analysis	Pump Type or Bailer	**Discharge**
Sample ID = POC#2- 6-21-18 Sample Time = 12:11 P.M Depth of Pump Inlet = 60 feet btoc	Cubtainer	NP	Lab Filtered	Radiological	Electric submersible pump	X Water Discharged Container: Tank onsite Water Discharged Directly Onto Site
	500ml	NP	N	Major Cations/Anions wet chem, D Metals		
	250-ml	HNO3	N	T Metals		
	500-ml	NaOH	N	Cyanide		

Time (24 hr)	Water Level (ft bmp)	Odor (Y/N)	Volume Removed (gal)	Pumping Rate (gpm)	Flow Meter Read (gal)	Temp (C)	Conductivity (uS/cm)	pH	Turbidity (NTU)	Color	Remarks (clarity, etc.)
11:45am	14.9	N	0	2	—	21°	3170	6.52	33.5	clear	Pump on/
11:50am	27.8	N	10	2	—	20.1°	3043	6.62	13.5	clear	Purge water in to storage tank
11:55am	29.4	N	20	2	—	19.7°	3001	6.67	15.6	clear	
12:03pm	30	N	30	2	—	19.5°	2980	6.67	13.1	clear	
12:08pm	32.2	N	40	2	—	19.5	2982	6.67	8.02	cear	
12:10	25		40	2	—						pump off/ after pump is off, record: water level, volume remove, and flow meter reading

Stabilization: +/- 10%, +/- 0.2 pH, +/- 10% conductivity, for 2 consecutive purge volumes

PLEASE COMPLETE THE FORM FOR ALL FIELDS

Verdad Group, LLC

pH and Conductivity calibration form
Daily record

Project: AMI POC·2 Sampling	
Date: 6-21-18	
Sampler: Robert Dodson	

Instrument: YSI Pro Plus	
Serial #:	

Pre/cal time: 7:40 am	
Post/cal time: 8:10 am	

Standard	*Lot Number*	*Exp date*	*Store date*	*Temp*	*Pre*	*Calibrated*
pH 4.00						
pH 7.00						
pH 10.00						
Cond 1413						

sampler Robert Dodson

signature

POC #2 – MW3
Monthly

LABORATORY			
Analyte – ICP/MS	**Total**	**Dissolved**	**Other**
Alkalinity	X		
Nitrite – N			As N
Nitrate as N			As N
Nitrate-Nitrite as N 1			As N 1
Free cyanide			Free
Fluoride	X		
Arsenic		X	
Barium		X	
Beryllium		X	
Cadmium		X	
Chromium (as Cr)		X	
Copper		X	
Iron		X	
Lead		X	
Manganese 1		X	
Thallium		X	
Nickel		X	
Zinc (as Zn)		X	
Antimony		X	
Selenium (as Se)		X	
Radium 226 + 228			X
Total Dissolved Solids		X	
Mercury (as Hg)		X	
Gross alpha			X
Sulfate	X		
Hardness			X

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water
Turbidity

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: June 21, 2018
Sample Received: June 29, 2018
Analysis Completed: July 11, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18F0594-01	< 2.4	< 0.4	< 0.6	< 0.6

Date of Analysis	7/9/2018	6/29/2018	6/29/2018	6/29/2018

7/11/2018

Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ______ PWS Name: ______

Sample Date: June 21, 2018 Sample Time: 12:11 (24 hour clock)

Owner/Contact Person: ______

Owner/Contact Fax Number: ______

Owner/Contact Phone Number: ______

Sample Collection Point
☐ EPDS # ______

Compliance Sample Type:

☐ Reduced Monitoring
☐ Quarterly
☐ Composite of four quarterly samples

Date Q1 collected: ______
Date Q2 collected: ______
Date Q3 collected: ______
Date Q4 collected: ______

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	7/9/2018	< 2.4	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	6/29/2018	< 0.6	
GammaRay HPGE		1 pCi/L	Radium 226	4020	6/29/2018	< 0.4	
GammaRay HPGE		1 pCi/L	Radium 228	4030	6/29/2018	< 0.6	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60620
Lab ID Number: AZ0462
Lab Name: Radiation Safety Engineering, Inc.
Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459
Comments: 18F0594-01
Authorized Signature:
Date Public Water System Notified: ______

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18F0594

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Turner Laboratories, Inc.	Radiation Safety Engineering, Inc.
2445 N. Coyote Drive, Ste #104	3245 N. Washington St.
Tucson, AZ 85745	Chandler, AZ 85225-1121
Phone: 520.882.5880	Phone :(480) 897-9459
Fax: 520.882.9788	Fax: (480) 892-5446
Project Manager: Max DiSante	Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18F0594-01 Drinking Water Sampled:06/21/2018 12:11		[redacted]	
Radiochemistry, Radium 226/228	07/21/2018 12:11		
Radiochemistry, Gross Alpha	12/18/2018 12:11		
Containers Supplied:			

60620

Released By — Date 6/28/18 1600 — Received By JPS — Date 6/28/18 1600

Released By — Date — Received By — Date 6-29-18 10:30

TURNER
LABORATORIES INC.

September 10, 2018

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 18G0574

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 07/19/2018 for the analyses presented in the following report.

The attached report has been revised. Please refer to the Case Narrative page for an explanation of the changes. We apologize for any inconvenience this may have caused you.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,
Turner Laboratories, Inc.
ADHS License AZ0066

Kevin Brim
Project Manager

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18G0574-01	POC#2	Ground Water	07/19/2018 1041

Client:	Arizona Minerals Inc.
Project:	Ground Water
Work Order:	18G0574
Date Received:	07/19/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

This report was originally generated on 8/8/2018. It is being revised on 9/10/2018 to include the additional parameters of Cyanide and Radiochemistry, which was not on the original report.

E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
H1	Sample analysis was performed past holding time.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Lab Sample ID: 18G0574-01

Client Sample ID: POC#2
Collection Date/Time: 07/19/2018 1041
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2200				mg/L	10	07/26/2018 1105	07/29/2018 1438	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	520		40		mg/L	10	07/23/2018 1230	07/24/2018 1639	MH
Iron	1.4		0.30		mg/L	1	07/23/2018 1230	07/24/2018 1616	MH
Magnesium	200		3.0		mg/L	1	07/23/2018 1230	07/24/2018 1616	MH
Manganese	27		0.20		mg/L	10	07/23/2018 1230	07/24/2018 1640	MH
Zinc	6.4		0.40		mg/L	10	07/23/2018 1230	07/24/2018 1640	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Arsenic	0.0082		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Barium	0.019		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Beryllium	0.00069		0.00050		mg/L	2	07/23/2018 1230	08/02/2018 1050	MH
Cadmium	0.0082		0.00025		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Chromium	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Copper	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Lead	0.0011		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Nickel	0.070		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Selenium	0.0017	0.00025	0.0025	E4	mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
Thallium	ND		0.00050		mg/L	1	07/23/2018 1230	07/29/2018 1354	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	07/25/2018 1125	07/25/2018 1803	AR
ICP Total Metals-E200.7 (4.4)									
Calcium	520		40		mg/L	10	07/26/2018 1105	07/29/2018 1438	MH
Iron	1.6		0.30		mg/L	1	07/26/2018 1105	07/27/2018 1254	MH
Magnesium	220		3.0		mg/L	1	07/26/2018 1105	07/27/2018 1254	MH
Manganese	27		0.20		mg/L	10	07/26/2018 1105	07/29/2018 1439	MH
Zinc	6.5		0.40		mg/L	10	07/26/2018 1105	07/29/2018 1439	MH

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Lab Sample ID: 18G0574-01

Client Sample ID: POC#2
Collection Date/Time: 07/19/2018 1041
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Arsenic	0.0057		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Barium	0.022		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Beryllium	0.00060		0.00025		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Cadmium	0.0080		0.00025		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Chromium	ND		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Copper	0.0016		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Lead	0.0017		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Nickel	0.083		0.0050		mg/L	10	07/31/2018 1030	08/06/2018 1340	MH
Selenium	0.00073		0.0025		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
Thallium	ND		0.00050		mg/L	1	07/31/2018 1030	08/01/2018 1347	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	07/31/2018 0920	07/31/2018 1334	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	07/20/2018 1049	07/20/2018 1445	EJ
Sulfate	2200		500		mg/L	100	07/20/2018 1049	07/31/2018 1821	MH
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	180		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Alkalinity, Total (As CaCO3)	180		2.0		mg/L	1	07/31/2018 1430	07/31/2018 1530	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3400		20		mg/L	1	07/25/2018 0910	08/02/2018 0845	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10	H1	mg/L	1	08/20/2018 1000	08/22/2018 1715	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807247 - E 200.2 D ICP										
Blank (1807247-BLK1)				Prepared & Analyzed: 07/24/2018						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807247-BS1)				Prepared & Analyzed: 07/24/2018						
Calcium	9.4	4.0	mg/L	10.00		94	85-115			
Iron	0.95	0.30	mg/L	1.000		95	85-115			
Magnesium	9.5	3.0	mg/L	10.00		95	85-115			
Manganese	0.48	0.020	mg/L	0.5000		96	85-115			
Zinc	0.47	0.040	mg/L	0.5000		93	85-115			
LCS Dup (1807247-BSD1)				Prepared & Analyzed: 07/24/2018						
Calcium	9.4	4.0	mg/L	10.00		94	85-115	0.09	20	
Iron	0.95	0.30	mg/L	1.000		95	85-115	0.4	20	
Magnesium	9.5	3.0	mg/L	10.00		95	85-115	0.5	20	
Manganese	0.48	0.020	mg/L	0.5000		96	85-115	0.02	20	
Zinc	0.47	0.040	mg/L	0.5000		93	85-115	0.1	20	
Matrix Spike (1807247-MS1)	**Source: 18G0424-01**			Prepared & Analyzed: 07/24/2018						
Calcium	89	4.0	mg/L	10.00	81	80	70-130			
Iron	0.95	0.30	mg/L	1.000	ND	95	70-130			
Magnesium	20	3.0	mg/L	10.00	11	93	70-130			
Manganese	0.87	0.020	mg/L	0.5000	0.42	90	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.082	91	70-130			
Matrix Spike (1807247-MS2)	**Source: 18G0425-02**			Prepared & Analyzed: 07/24/2018						
Calcium	19	4.0	mg/L	10.00	9.6	91	70-130			
Iron	1.1	0.30	mg/L	1.000	0.12	95	70-130			
Magnesium	13	3.0	mg/L	10.00	4.0	95	70-130			
Manganese	0.57	0.020	mg/L	0.5000	0.087	96	70-130			
Zinc	0.48	0.040	mg/L	0.5000	0.024	91	70-130			
Batch 1807271 - E 245.1_DISS										
Blank (1807271-BLK1)				Prepared & Analyzed: 07/25/2018						
Mercury	ND	0.00050	mg/L							
LCS (1807271-BS1)				Prepared & Analyzed: 07/25/2018						
Mercury	0.0047	0.00050	mg/L	0.005000		94	85-115			
LCS Dup (1807271-BSD1)				Prepared & Analyzed: 07/25/2018						
Mercury	0.0050	0.00050	mg/L	0.005000		100	85-115	7	20	
Matrix Spike (1807271-MS1)	**Source: 18G0541-01**			Prepared & Analyzed: 07/25/2018						
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115			
Matrix Spike Dup (1807271-MSD1)	**Source: 18G0541-01**			Prepared & Analyzed: 07/25/2018						
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115	0.3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807276 - E 200.8 D ICP/MS										
Blank (1807276-BLK1)				Prepared & Analyzed: 07/29/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1807276-BS1)				Prepared & Analyzed: 07/29/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115			
Barium	0.051	0.00050	mg/L	0.05000		102	85-115			
Beryllium	0.052	0.00025	mg/L	0.05000		104	85-115			
Cadmium	0.052	0.00025	mg/L	0.05000		105	85-115			
Chromium	0.053	0.00050	mg/L	0.05000		105	85-115			
Copper	0.051	0.00050	mg/L	0.05000		102	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Nickel	0.053	0.00050	mg/L	0.05000		107	85-115			
Selenium	0.051	0.0015	mg/L	0.05000		102	85-115			
Thallium	0.052	0.00050	mg/L	0.05000		103	85-115			
LCS Dup (1807276-BSD1)				Prepared & Analyzed: 07/29/2018						
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115	2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.1	20	
Barium	0.051	0.00050	mg/L	0.05000		102	85-115	0.6	20	
Beryllium	0.051	0.00025	mg/L	0.05000		102	85-115	2	20	
Cadmium	0.053	0.00025	mg/L	0.05000		106	85-115	1	20	
Chromium	0.053	0.00050	mg/L	0.05000		106	85-115	0.7	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	2	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115	2	20	
Selenium	0.052	0.0015	mg/L	0.05000		103	85-115	1	20	
Thallium	0.053	0.00050	mg/L	0.05000		106	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807276 - E 200.8 D ICP/MS										
Matrix Spike (1807276-MS1)	**Source: 18G0523-01**			Prepared & Analyzed: 07/29/2018						
Antimony	0.049	0.00050	mg/L	0.05000	0.00020	99	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.0019	99	70-130			
Barium	0.076	0.00050	mg/L	0.05000	0.025	102	70-130			
Beryllium	0.052	0.00025	mg/L	0.05000	0.000041	104	70-130			
Cadmium	0.052	0.00025	mg/L	0.05000	0.00011	103	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	0.00037	100	70-130			
Copper	0.051	0.00050	mg/L	0.05000	0.0048	93	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.0011	94	70-130			
Nickel	0.050	0.00050	mg/L	0.05000	0.00089	99	70-130			
Selenium	0.052	0.0015	mg/L	0.05000	ND	103	70-130			
Thallium	0.051	0.00050	mg/L	0.05000	ND	102	70-130			
Batch 1807288 - E 200.2 ICP										
Blank (1807288-BLK1)				Prepared: 07/26/2018 Analyzed: 07/27/2018						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1807288-BS1)				Prepared: 07/26/2018 Analyzed: 07/27/2018						
Calcium	9.5	4.0	mg/L	10.00		95	85-115			
Iron	1.0	0.30	mg/L	1.000		103	85-115			
Magnesium	9.7	3.0	mg/L	10.00		97	85-115			
Manganese	0.51	0.020	mg/L	0.5000		102	85-115			
Zinc	0.48	0.040	mg/L	0.5000		96	85-115			
LCS Dup (1807288-BSD1)				Prepared: 07/26/2018 Analyzed: 07/27/2018						
Calcium	9.6	4.0	mg/L	10.00		96	85-115	1	20	
Iron	1.0	0.30	mg/L	1.000		104	85-115	0.4	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	1	20	
Manganese	0.52	0.020	mg/L	0.5000		105	85-115	2	20	
Zinc	0.49	0.040	mg/L	0.5000		98	85-115	2	20	
Matrix Spike (1807288-MS1)	**Source: 18G0585-02**			Prepared: 07/26/2018 Analyzed: 07/27/2018						
Calcium	220	4.0	mg/L	10.00	220	44	70-130			M3
Iron	1.7	0.30	mg/L	1.000	0.68	103	70-130			
Magnesium	56	3.0	mg/L	10.00	46	100	70-130			
Manganese	0.54	0.020	mg/L	0.5000	0.038	101	70-130			
Zinc	0.68	0.040	mg/L	0.5000	0.18	99	70-130			
Matrix Spike (1807288-MS2)	**Source: 18G0666-01**			Prepared: 07/26/2018 Analyzed: 07/27/2018						
Calcium	72	4.0	mg/L	10.00	63	87	70-130			
Iron	1.1	0.30	mg/L	1.000	0.045	106	70-130			
Magnesium	630	30	mg/L	10.00	630	9	70-130			M3
Manganese	0.48	0.020	mg/L	0.5000	ND	97	70-130			
Zinc	0.47	0.040	mg/L	0.5000	0.0039	94	70-130			
Batch 1807341 - E 245.1										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807341 - E 245.1										
Blank (1807341-BLK1)				Prepared & Analyzed: 07/31/2018						
Mercury	ND	0.0010	mg/L							
LCS (1807341-BS1)				Prepared & Analyzed: 07/31/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115			
LCS Dup (1807341-BSD1)				Prepared & Analyzed: 07/31/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		101	85-115	1	20	
Matrix Spike (1807341-MS1)		**Source: 18G0643-01**		Prepared & Analyzed: 07/31/2018						
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115			
Matrix Spike Dup (1807341-MSD1)		**Source: 18G0643-01**		Prepared & Analyzed: 07/31/2018						
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115	0.05	20	
Batch 1808001 - E 200.8 ICP/MS										
Blank (1808001-BLK1)				Prepared: 07/31/2018 Analyzed: 08/01/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1808001-BS1)				Prepared: 07/31/2018 Analyzed: 08/01/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Barium	0.048	0.00050	mg/L	0.05000		96	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115			
Copper	0.052	0.00050	mg/L	0.05000		104	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		101	85-115			
Selenium	0.049	0.0015	mg/L	0.05000		99	85-115			
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115			

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808001 - E 200.8 ICP/MS										
LCS Dup (1808001-BSD1)				Prepared: 07/31/2018 Analyzed: 08/01/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115	0.3	20	
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115	2	20	
Barium	0.048	0.00050	mg/L	0.05000		96	85-115	0.5	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.5	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	2	20	
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115	4	20	
Copper	0.053	0.00050	mg/L	0.05000		106	85-115	2	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	0.2	20	
Nickel	0.053	0.00050	mg/L	0.05000		106	85-115	5	20	
Selenium	0.051	0.0015	mg/L	0.05000		101	85-115	3	20	
Thallium	0.050	0.00050	mg/L	0.05000		99	85-115	2	20	
Matrix Spike (1808001-MS1)		**Source: 18G0635-04**		Prepared: 07/31/2018 Analyzed: 08/01/2018						
Antimony	0.047	0.00050	mg/L	0.05000	0.00014	94	70-130			
Arsenic	0.057	0.00050	mg/L	0.05000	0.0077	99	70-130			
Barium	0.053	0.00050	mg/L	0.05000	0.0050	96	70-130			
Beryllium	0.047	0.00025	mg/L	0.05000	0.000019	95	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	ND	99	70-130			
Chromium	0.064	0.00050	mg/L	0.05000	0.011	104	70-130			
Copper	0.11	0.00050	mg/L	0.05000	0.044	128	70-130			
Lead	0.058	0.00050	mg/L	0.05000	0.0090	98	70-130			
Nickel	0.054	0.00050	mg/L	0.05000	0.0010	107	70-130			
Selenium	0.050	0.0015	mg/L	0.05000	0.0012	98	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.000059	99	70-130			

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807263 - GEN CHEM										
Duplicate (1807263-DUP1)	**Source: 18G0576-01**			Prepared: 07/25/2018 Analyzed: 08/02/2018						
Total Dissolved Solids (Residue, Filterable)	440	20	mg/L		420			5	5	
Batch 1808009 - GEN CHEM										
LCS (1808009-BS1)				Prepared & Analyzed: 07/31/2018						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		101	90-110			
LCS Dup (1808009-BSD1)				Prepared & Analyzed: 07/31/2018						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		100	90-110	0.8	10	
Matrix Spike (1808009-MS1)	**Source: 18G0565-01**			Prepared & Analyzed: 07/31/2018						
Alkalinity, Total (As CaCO3)	350	2.0	mg/L	250.0	100	98	70-130			
Matrix Spike Dup (1808009-MSD1)	**Source: 18G0565-01**			Prepared & Analyzed: 07/31/2018						
Alkalinity, Total (As CaCO3)	350	2.0	mg/L	250.0	100	100	70-130	1	10	
Batch 1808286 - SPECTRO PREP										
Blank (1808286-BLK1)				Prepared: 08/20/2018 Analyzed: 08/22/2018						
Cyanide	ND	0.10	mg/L							
LCS (1808286-BS1)				Prepared: 08/20/2018 Analyzed: 08/22/2018						
Cyanide	2.0	0.10	mg/L	2.000		102	90-110			
LCS Dup (1808286-BSD1)				Prepared: 08/20/2018 Analyzed: 08/22/2018						
Cyanide	2.1	0.10	mg/L	2.000		103	90-110	2	20	
Matrix Spike (1808286-MS1)	**Source: 18H0333-07**			Prepared: 08/20/2018 Analyzed: 08/22/2018						
Cyanide	1.9	0.10	mg/L	2.000	ND	96	70-130			
Matrix Spike Dup (1808286-MSD1)	**Source: 18H0333-07**			Prepared: 08/20/2018 Analyzed: 08/22/2018						
Cyanide	2.0	0.10	mg/L	2.000	ND	102	70-130	6	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18G0574
Date Received: 07/19/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1807236 - IC PREP										
Blank (1807236-BLK1)				Prepared & Analyzed: 07/20/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1807236-BS1)				Prepared & Analyzed: 07/20/2018						
Fluoride	2.0	0.50	mg/L	2.000		102	90-110			
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000		102	90-110			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500		102	90-110			
Sulfate	12	5.0	mg/L	12.50		98	90-110			
LCS Dup (1807236-BSD1)				Prepared & Analyzed: 07/20/2018						
Fluoride	2.0	0.50	mg/L	2.000		101	90-110	1	10	
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000		101	90-110	0.4	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		101	90-110	1	10	
Sulfate	12	5.0	mg/L	12.50		99	90-110	0.3	10	
Matrix Spike (1807236-MS1)	**Source: 18G0529-05**			Prepared & Analyzed: 07/20/2018						
Fluoride	2.0	0.50	mg/L	2.000	0.13	95	80-120			
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	0.85	100	80-120			
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	83	80-120			
Sulfate	44	5.0	mg/L	12.50	33	94	80-120			
Matrix Spike Dup (1807236-MSD1)	**Source: 18G0529-05**			Prepared & Analyzed: 07/20/2018						
Fluoride	2.0	0.50	mg/L	2.000	0.13	96	80-120	1	10	
Nitrogen, Nitrate (As N)	5.9	0.50	mg/L	5.000	0.85	101	80-120	0.4	10	
Nitrogen, Nitrite (As N)	2.1	0.10	mg/L	2.500	ND	84	80-120	1	10	
Sulfate	44	5.0	mg/L	12.50	33	95	80-120	0.2	10	

TURNER LABORATORIES INC
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 1890574 DATE 7/19/18 PAGE 1 OF 2

PROJECT NAME ~~Surface~~ Ground Water #
CONTACT NAME Johnny Pappas
COMPANY NAME Arizona Mining
ADDRESS 3845 N Business Center Drive, Suite 115
ZIP 85705 PHONE 520-235-5513 EMAIL
SAMPLER'S SIGNATURE Sheena

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS
POC#2	7/19/18	10:41		Groundwater	4

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

- Base Neutrals ☐ 625/8270 Acids ☐
- Volatile Organics ☐ 624 ☐ 524.2 ☐ 8260
- TTHMS ☐ HAAS ☐
- ☐ Chloride ☐ Sulfate ☐ Resistivity
- NO_3 ☐ NO_2 ☐ TKN ☐
- ☐ TPH 1664 ☐ Oil & Grease
- TCLP Analysis VOA ☐ Semi-VOA ☐ Pest. ☐
- Metals TCLP ☐ Dissolved ☐ RCRA8 ☐ Total ☐
- Cyanide Total ☐ Amen. ☐ WAD ☐
- SDWA-INORGANICS PRIMARY ☐ SECONDARY ☐
- Coliform MPN ☐ P/A ☐ Fecal ☐
- pH ☐ C_t ☐ Cl_2 ☐ Turb ☐
- COD ☐ TSS ☐ BOD ☐
- * See attached

1. RELINQUISHED BY:
Signature Sarah
Printed Name Sarah Richman
Firm AMI
Date/Time 7/19/18 1631

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name Andi Ryl
TURNER LABORATORIES, INC.
Firm
Date/Time 7/19/18 1631

TURNAROUND REQUIREMENTS:
___ Standard (approx. 10 days)*
___ Next Day ___ 2 Day ___ 5 Day*
___ Email Preliminary Results
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:
Account ___ Y ___ N
P.O. # ___
Bill to: ___

SAMPLE RECEIPT:
Total Containers 4
Temperature 7.9
☑ Wet Ice
☐ Ambient
☐ Blue Ice

* LEGEND
SAMPLE MATRIX
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

Compliance Analysis: ☐ Yes ☐ No
ADEQ Forms: ☐ Yes ☐ No
Mail ADEQ Forms: ☐ Yes ☐ No

SPECIAL INSTRUCTIONS/COMMENTS:

Custody Seals ☐
Container Intact ☒
COC / Labels Agree ☒

Preservation Confirmation ☒
Appropriate Head Space ☒
Received Within Hold Time ☒

POC-2 Monthly Suite

LABORATORY			
Analyte	**Total**	**Dissolved**	**Other**
Metals			
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Cadmium	X	X	
Chromium	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Hardness	X	X	
Major Anions			
Total Alkalinity	X		
Acidity	X		
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Nitrate-Nitrite as N I	X	X	
Sulfate	X	X	
Parameters			
Total Dissolved Solids		X	
RadChem			
Gross Alpha Particle Activity			
Radium 226 + 228			
Cyanide			
Free CN			Free

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: July 19, 2018
Sample Received: August 14, 2018
Analysis Completed: August 27, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18G0574-01	2.2 ± 1.0	< 0.4	< 0.6	< 0.6

Date of Analysis	8/20/2018	8/17/2018	8/17/2018	8/17/2018

Robert L. Metzger, Ph.D., C.H.P. — 8/27/2018 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04

PWS Name:

Sample Date: July 19, 2018

Sample Time: 10:41 (24 hour clock)

Owner/Contact Person:

Owner/Contact Fax Number:

Owner/Contact Phone Number:

Sample Collection Point

☐ EPDS #

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected:

Date Q2 collected:

Date Q3 collected:

Date Q4 collected:

RADIOCHEMICAL ANALYSIS

\>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	8/20/2018	2.2 ± 1.0	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	8/17/2018	< 0.6	
GammaRay HPGE		1 pCi/L	Radium 226	4020	8/17/2018	< 0.4	
GammaRay HPGE		1 pCi/L	Radium 228	4030	8/17/2018	< 0.6	

LABORATORY INFORMATION

\>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60829

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18G0574-01

Authorized Signature:

Date Public Water System Notified:

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18G0574

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Turner Laboratories, Inc.	Radiation Safety Engineering, Inc.
2445 N. Coyote Drive, Ste #104	3245 N. Washington St.
Tucson, AZ 85745	Chandler, AZ 85225-1121
Phone: 520.882.5880	Phone :(480) 897-9459
Fax: 520.882.9788	Fax: (480) 892-5446
Project Manager: Max DiSante	Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18G0574-01 Drinking Water Sampled:07/19/2018 10:41 [redacted]			
Radiochemistry, Radium 226/228	08/18/2018 10:41		
Radiochemistry, Gross Alpha	01/15/2019 10:41		
Containers Supplied:			

#60829

Released By	Date	Received By	Date
	8/13/18 1600	VPS	8/13/18 1600
		Scarlet D Castro	8/14/18 10:50

TURNER
LABORATORIES INC.

September 10, 2018

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 18H0633
Order Name: POC #2

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 08/22/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client:	Arizona Minerals Inc.
Project:	Ground Water
Work Order:	18H0633
Date Received:	08/22/2018

Order: POC #2

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18H0633-01	POC#2	Ground Water	08/21/2018 1105

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

D5	Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M2	Matrix spike recovery was low; the associated LCS/LCSD was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2
Project:	Ground Water	**Collection Date/Time:**	08/21/2018 1105
Work Order:	18H0633	**Matrix:**	Ground Water
Lab Sample ID:	18H0633-01	**Order Name:**	POC #2

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2200				mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	540		20	M3	mg/L	5	08/24/2018 0815	08/24/2018 1022	MH
Iron	ND		1.5	D5	mg/L	5	08/24/2018 0815	08/24/2018 1022	MH
Magnesium	220		15	M3	mg/L	5	08/24/2018 0815	08/24/2018 1022	MH
Manganese	26		0.20	M3	mg/L	10	08/24/2018 0815	08/24/2018 1803	MH
Zinc	7.9		0.20	M3	mg/L	5	08/24/2018 0815	08/24/2018 1023	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Arsenic	0.0068		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Barium	0.018		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Beryllium	0.00060		0.00025		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Cadmium	0.0087		0.00025		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Chromium	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Copper	0.00065		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Lead	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Nickel	0.063		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Selenium	0.0016		0.0015		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
Thallium	ND		0.00050		mg/L	1	08/24/2018 0815	08/30/2018 1652	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	08/24/2018 1105	08/24/2018 1504	RAD
ICP Total Metals-E200.7 (4.4)									
Calcium	500		40		mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Iron	ND		3.0	D5	mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Magnesium	220		30		mg/L	10	08/22/2018 1355	08/27/2018 1230	MH
Manganese	27		0.20		mg/L	10	08/22/2018 1355	08/27/2018 1231	MH

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Lab Sample ID: 18H0633-01

Client Sample ID: POC#2
Collection Date/Time: 08/21/2018 1105
Matrix: Ground Water
Order Name: POC #2

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Zinc	6.7		0.40		mg/L	10	08/22/2018 1355	08/27/2018 1231	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	08/22/2018 1355	09/06/2018 1510	MH
Arsenic	0.0068		0.0050		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Barium	0.017		0.0050		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Beryllium	0.00060		0.00025		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Cadmium	0.0087		0.0025		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Chromium	0.00058		0.00050		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Copper	ND		0.00050		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Lead	0.0011		0.00050		mg/L	1	08/22/2018 1355	09/06/2018 1510	MH
Nickel	0.071		0.0050		mg/L	10	08/22/2018 1355	08/31/2018 1444	MH
Selenium	0.0020		0.0015		mg/L	1	08/22/2018 1355	09/05/2018 2035	MH
Thallium	ND		0.00050		mg/L	1	08/22/2018 1355	09/06/2018 1510	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	08/30/2018 1045	08/30/2018 1436	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	08/22/2018 1750	08/22/2018 1950	EJ
Sulfate	2100		500		mg/L	100	08/24/2018 1110	08/24/2018 1435	EJ
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	160		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Alkalinity, Total (As CaCO3)	160		2.0		mg/L	1	08/31/2018 1530	08/31/2018 1630	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3300		20		mg/L	1	08/23/2018 0854	08/30/2018 1700	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	09/04/2018 0900	09/05/2018 1645	EJ

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2
Project:	Ground Water	**Collection Date/Time:**	08/21/2018 1105
Work Order:	18H0633	**Matrix:**	Ground Water
Lab Sample ID:	18H0633-01	**Order Name:**	POC #2

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808309 - E 200.7 (4.4)										
Blank (1808309-BLK1)				Prepared & Analyzed: 08/24/2018						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1808309-BS1)				Prepared & Analyzed: 08/24/2018						
Calcium	9.8	4.0	mg/L	10.00		98	85-115			
Iron	1.0	0.30	mg/L	1.000		103	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Manganese	0.47	0.020	mg/L	0.5000		94	85-115			
Zinc	0.54	0.040	mg/L	0.5000		109	85-115			
LCS Dup (1808309-BSD1)				Prepared & Analyzed: 08/24/2018						
Calcium	10	4.0	mg/L	10.00		102	85-115	5	20	
Iron	1.1	0.30	mg/L	1.000		106	85-115	3	20	
Magnesium	10	3.0	mg/L	10.00		102	85-115	4	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	6	20	
Zinc	0.53	0.040	mg/L	0.5000		107	85-115	2	20	
Matrix Spike (1808309-MS1)	**Source: 18H0633-01**			Prepared & Analyzed: 08/24/2018						
Calcium	540	20	mg/L	10.00	540	NR	70-130			M3
Iron	2.3	1.5	mg/L	1.000	1.3	104	70-130			
Magnesium	230	15	mg/L	10.00	220	55	70-130			M3
Manganese	27	0.20	mg/L	0.5000	26	210	70-130			M3
Zinc	9.5	0.20	mg/L	0.5000	7.9	321	70-130			M3
Batch 1808319 - E 245.1										
Blank (1808319-BLK1)				Prepared & Analyzed: 08/24/2018						
Mercury	ND	0.00050	mg/L							
LCS (1808319-BS1)				Prepared & Analyzed: 08/24/2018						
Mercury	0.0051	0.00050	mg/L	0.005000		102	85-115			
LCS Dup (1808319-BSD1)				Prepared & Analyzed: 08/24/2018						
Mercury	0.0051	0.00050	mg/L	0.005000		102	85-115	0.7	20	
Matrix Spike (1808319-MS1)	**Source: 18H0669-01**			Prepared & Analyzed: 08/24/2018						
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115			
Matrix Spike Dup (1808319-MSD1)	**Source: 18H0669-01**			Prepared & Analyzed: 08/24/2018						
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115	0.5	20	
Batch 1808346 - E200.7 (4.4)										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808346 - E200.7 (4.4)										
Blank (1808346-BLK1)				Prepared & Analyzed: 08/27/2018						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1808346-BS1)				Prepared & Analyzed: 08/27/2018						
Calcium	11	4.0	mg/L	10.00		108	85-115			
Iron	1.1	0.30	mg/L	1.000		112	85-115			
Magnesium	11	3.0	mg/L	10.00		110	85-115			
Manganese	0.51	0.020	mg/L	0.5000		102	85-115			
Zinc	0.48	0.040	mg/L	0.5000		97	85-115			
LCS Dup (1808346-BSD1)				Prepared & Analyzed: 08/27/2018						
Calcium	9.6	4.0	mg/L	10.00		96	85-115	12	20	
Iron	1.0	0.30	mg/L	1.000		101	85-115	11	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	11	20	
Manganese	0.51	0.020	mg/L	0.5000		103	85-115	1	20	
Zinc	0.49	0.040	mg/L	0.5000		98	85-115	1	20	
Matrix Spike (1808346-MS1)	**Source: 18H0482-01**			Prepared & Analyzed: 08/27/2018						
Calcium	100	4.0	mg/L	10.00	95	76	70-130			
Iron	1.1	0.30	mg/L	1.000	0.099	99	70-130			
Magnesium	40	3.0	mg/L	10.00	31	93	70-130			
Manganese	0.50	0.020	mg/L	0.5000	ND	100	70-130			
Zinc	0.53	0.040	mg/L	0.5000	0.058	95	70-130			
Batch 1808406 - E 200.8 (5.4)										
Blank (1808406-BLK1)				Prepared & Analyzed: 08/30/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808406 - E 200.8 (5.4)										
LCS (1808406-BS1)				Prepared & Analyzed: 08/30/2018						
Antimony	0.053	0.00050	mg/L	0.05000		105	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		99	85-115			
Barium	0.051	0.00050	mg/L	0.05000		102	85-115			
Beryllium	0.051	0.00025	mg/L	0.05000		101	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		103	85-115			
Copper	0.051	0.00050	mg/L	0.05000		101	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115			
Selenium	0.049	0.0015	mg/L	0.05000		98	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			
LCS Dup (1808406-BSD1)				Prepared & Analyzed: 08/30/2018						
Antimony	0.051	0.00050	mg/L	0.05000		103	85-115	2	20	
Arsenic	0.050	0.00050	mg/L	0.05000		101	85-115	2	20	
Barium	0.049	0.00050	mg/L	0.05000		98	85-115	3	20	
Beryllium	0.051	0.00025	mg/L	0.05000		103	85-115	2	20	
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115	1	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	1	20	
Copper	0.052	0.00050	mg/L	0.05000		104	85-115	2	20	
Lead	0.050	0.00050	mg/L	0.05000		101	85-115	0.8	20	
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115	1	20	
Selenium	0.048	0.0015	mg/L	0.05000		97	85-115	1	20	
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Matrix Spike (1808406-MS1)		**Source: 18H0693-01**		Prepared & Analyzed: 08/30/2018						
Antimony	0.051	0.00050	mg/L	0.05000	0.00031	102	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.0015	100	70-130			
Barium	0.083	0.00050	mg/L	0.05000	0.035	96	70-130			
Beryllium	0.051	0.00025	mg/L	0.05000	0.000075	101	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	0.0027	95	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	0.00035	100	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.0075	97	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.0014	101	70-130			
Nickel	0.048	0.00050	mg/L	0.05000	ND	97	70-130			
Selenium	0.052	0.0015	mg/L	0.05000	0.00033	104	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.000025	100	70-130			
Batch 1808408 - E245.1										
Blank (1808408-BLK1)				Prepared & Analyzed: 08/30/2018						
Mercury	ND	0.0010	mg/L							
LCS (1808408-BS1)				Prepared & Analyzed: 08/30/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115			
LCS Dup (1808408-BSD1)				Prepared & Analyzed: 08/30/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115	0.4	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808408 - E245.1										
Matrix Spike (1808408-MS1)		**Source: 18H0697-01**		Prepared & Analyzed: 08/30/2018						
Mercury	0.0045	0.0010	mg/L	0.005000	ND	91	85-115			
Matrix Spike (1808408-MS2)		**Source: 18H0767-01**		Prepared & Analyzed: 08/30/2018						
Mercury	0.0044	0.0010	mg/L	0.005000	ND	89	85-115			
Matrix Spike Dup (1808408-MSD1)		**Source: 18H0697-01**		Prepared & Analyzed: 08/30/2018						
Mercury	0.0049	0.0010	mg/L	0.005000	ND	97	85-115	7	20	
Matrix Spike Dup (1808408-MSD2)		**Source: 18H0767-01**		Prepared & Analyzed: 08/30/2018						
Mercury	0.0044	0.0010	mg/L	0.005000	ND	88	85-115	0.9	20	
Batch 1808423 - E200.8 (5.4)										
Blank (1808423-BLK1)				Prepared & Analyzed: 08/31/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1808423-BS1)				Prepared & Analyzed: 08/31/2018						
Antimony	0.052	0.00050	mg/L	0.05000		104	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.049	0.00050	mg/L	0.05000		99	85-115			
Beryllium	0.053	0.00025	mg/L	0.05000		105	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		100	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.051	0.00050	mg/L	0.05000		103	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115			
Selenium	0.048	0.0015	mg/L	0.05000		96	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808423 - E200.8 (5.4)										
LCS Dup (1808423-BSD1)				Prepared & Analyzed: 08/31/2018						
Antimony	0.051	0.00050	mg/L	0.05000		101	85-115	3	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.3	20	
Barium	0.047	0.00050	mg/L	0.05000		95	85-115	4	20	
Beryllium	0.054	0.00025	mg/L	0.05000		107	85-115	2	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	2	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	3	20	
Copper	0.052	0.00050	mg/L	0.05000		103	85-115	0.4	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	3	20	
Nickel	0.053	0.00050	mg/L	0.05000		107	85-115	5	20	
Selenium	0.048	0.0015	mg/L	0.05000		96	85-115	0.01	20	
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115	0.2	20	
Matrix Spike (1808423-MS1)		**Source: 18H0555-01**		Prepared & Analyzed: 08/31/2018						
Antimony	0.052	0.00050	mg/L	0.05000	0.00016	103	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.00043	101	70-130			
Barium	0.058	0.00050	mg/L	0.05000	0.010	96	70-130			
Beryllium	0.054	0.00025	mg/L	0.05000	ND	107	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	ND	97	70-130			
Chromium	0.083	0.00050	mg/L	0.05000	0.022	121	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.0068	99	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.00038	103	70-130			
Nickel	0.070	0.00050	mg/L	0.05000	0.011	119	70-130			
Selenium	0.051	0.0015	mg/L	0.05000	0.00054	100	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	ND	100	70-130			
Matrix Spike (1808423-MS2)		**Source: 18H0575-01**		Prepared & Analyzed: 08/31/2018						
Antimony	0.052	0.00050	mg/L	0.05000	0.000054	104	70-130			
Arsenic	0.053	0.00050	mg/L	0.05000	0.00029	105	70-130			
Barium	0.10	0.00050	mg/L	0.05000	0.053	94	70-130			
Beryllium	0.047	0.00025	mg/L	0.05000	ND	95	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	0.000052	99	70-130			
Chromium	0.053	0.00050	mg/L	0.05000	0.00065	104	70-130			
Copper	0.12	0.00050	mg/L	0.05000	0.068	95	70-130			
Lead	0.055	0.00050	mg/L	0.05000	0.0015	107	70-130			
Nickel	0.049	0.00050	mg/L	0.05000	0.00030	97	70-130			
Selenium	0.054	0.0015	mg/L	0.05000	0.0017	105	70-130			
Thallium	0.052	0.00050	mg/L	0.05000	ND	104	70-130			

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808290 - SM2540 C										
Duplicate (1808290-DUP1)		**Source: 18H0605-10**		Prepared: 08/23/2018 Analyzed: 08/28/2018						
Total Dissolved Solids (Residue, Filterable)	1300	20	mg/L		1300			1	5	
Duplicate (1808290-DUP2)		**Source: 18H0607-01**		Prepared: 08/23/2018 Analyzed: 08/30/2018						
Total Dissolved Solids (Residue, Filterable)	560	20	mg/L		560			0.7	5	
Batch 1809004 - SM2320B										
LCS (1809004-BS1)				Prepared & Analyzed: 08/31/2018						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		101	90-110			
LCS Dup (1809004-BSD1)				Prepared & Analyzed: 08/31/2018						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		100	90-110	0.8	10	
Matrix Spike (1809004-MS1)		**Source: 18H0605-10**		Prepared & Analyzed: 08/31/2018						
Alkalinity, Total (As CaCO3)	820	2.0	mg/L	250.0	570	98	70-130			
Matrix Spike Dup (1809004-MSD1)		**Source: 18H0605-10**		Prepared & Analyzed: 08/31/2018						
Alkalinity, Total (As CaCO3)	820	2.0	mg/L	250.0	570	98	70-130	0	10	
Batch 1809018 - SM4500-CN BE										
Blank (1809018-BLK1)				Prepared: 09/04/2018 Analyzed: 09/05/2018						
Cyanide	ND	0.10	mg/L							
LCS (1809018-BS1)				Prepared: 09/04/2018 Analyzed: 09/05/2018						
Cyanide	1.8	0.10	mg/L	2.000		90	90-110			
LCS Dup (1809018-BSD1)				Prepared: 09/04/2018 Analyzed: 09/05/2018						
Cyanide	1.9	0.10	mg/L	2.000		97	90-110	7	20	
Matrix Spike (1809018-MS1)		**Source: 18H0577-02**		Prepared: 09/04/2018 Analyzed: 09/05/2018						
Cyanide	2.0	0.10	mg/L	2.000	ND	98	70-130			
Matrix Spike Dup (1809018-MSD1)		**Source: 18H0577-02**		Prepared: 09/04/2018 Analyzed: 09/05/2018						
Cyanide	2.0	0.10	mg/L	2.000	ND	101	70-130	3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18H0633
Date Received: 08/22/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1808283 - E300.0 (2.1)										
Blank (1808283-BLK1)				Prepared & Analyzed: 08/22/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1808283-BS1)				Prepared & Analyzed: 08/22/2018						
Fluoride	1.9	0.50	mg/L	2.000		95	90-110			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		99	90-110			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		99	90-110			
Sulfate	12	5.0	mg/L	12.50		95	90-110			
LCS Dup (1808283-BSD1)				Prepared & Analyzed: 08/22/2018						
Fluoride	2.0	0.50	mg/L	2.000		99	90-110	5	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		99	90-110	0.2	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		99	90-110	0.5	10	
Sulfate	12	5.0	mg/L	12.50		96	90-110	0.4	10	
Matrix Spike (1808283-MS1)	**Source: 18H0607-01**			Prepared & Analyzed: 08/22/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.26	96	80-120			
Nitrogen, Nitrite (As N)	1.9	0.10	mg/L	2.500	ND	75	80-120			M2
Matrix Spike (1808283-MS2)	**Source: 18H0651-01**			Prepared: 08/22/2018 Analyzed: 08/23/2018						
Fluoride	2.0	0.50	mg/L	2.000	0.10	97	80-120			
Nitrogen, Nitrite (As N)	1.8	0.10	mg/L	2.500	ND	72	80-120			M2
Matrix Spike (1808283-MS3)	**Source: 18H0669-01**			Prepared & Analyzed: 08/23/2018						
Fluoride	1.9	0.50	mg/L	2.000	ND	96	80-120			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.12	96	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120			
Sulfate	12	5.0	mg/L	12.50	1.1	85	80-120			
Matrix Spike Dup (1808283-MSD1)	**Source: 18H0607-01**			Prepared & Analyzed: 08/22/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.26	94	80-120	2	10	
Nitrogen, Nitrite (As N)	1.9	0.10	mg/L	2.500	ND	75	80-120	0.7	10	M2
Matrix Spike Dup (1808283-MSD2)	**Source: 18H0651-01**			Prepared: 08/22/2018 Analyzed: 08/23/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.10	98	80-120	1	10	
Nitrogen, Nitrite (As N)	1.9	0.10	mg/L	2.500	ND	74	80-120	3	10	M2
Matrix Spike Dup (1808283-MSD3)	**Source: 18H0669-01**			Prepared & Analyzed: 08/23/2018						
Fluoride	1.9	0.50	mg/L	2.000	ND	96	80-120	0.4	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.12	96	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120	0.3	10	
Sulfate	12	5.0	mg/L	12.50	1.1	84	80-120	0.2	10	

TURNER LABORATORIES INC.

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18H0633 DATE 8/22/18 PAGE 1 OF 1

PROJECT NAME POCH2 #
CONTACT NAME : Johnny Pappas + Sarah Richman
COMPANY NAME : AMI
ADDRESS : 2210 East Fort Lowell RD
CITY Tucson STATE AZ ZIP CODE 85719
PHONE FAX
SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	See attached
POCH2	8-21-18	11:05Am		GW	4	X

1. RELINQUISHED BY:
Signature
Luis Lagunas
Printed Name
AMI
Firm
8-21-18 12:55
Date/Time

2. RECEIVED BY:
Signature
Sarah Richman
Printed Name
AMI
Firm
8/21/18 1255
Date/Time

3. RELINQUISHED BY:
Signature
Sarah Richman
Printed Name
8-22-18 9:00am
Firm
AMI
Date/Time

4. RECEIVED BY:
Signature
Katie Tobin
Printed Name
8/22 9:03am
TURNER LABORATORIES, INC.
Firm
Ami
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx. 10 days)*
X Next day ____ 2 Day ____ 5 Day*
X Email Preliminary Results To: srichman@arizonamining.com
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 4
Temperature 6.1
☐ Wet Ice ☒ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☒
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

Katie Tobin

Martha Howard
Turner Labs

MONITORING WELL PUMPED SAMPLE COLLECTION FORM

LOCATION	Project Name: AMI	LocID:	Date: 6-21-18
	Well Name: POC#2	Project #:	Recorded By: LL Checked By:
EQUIPMENT	Water Quality Meter Type/ID #: YSI pro	Water Level Indicator Type/ID #: GeoTech water meter	Carbon Canister: NO
	Water Quality Meter Calibrated Today? Y / N	Sampling Equipment:	Equipment Decon: (alconox)
WELL INFO	Casing I.D. (in) [a]: **2**	Unit Casing Volume (gal / lin ft) [b]: **0.16**	Initial Depth to Water (ft) [c]: 16.6
	Total Well Depth (ft) [d]: **86**	Water Column Thickness (ft) [d-c]: 69.4	Well Volume (gal) ([d-c] x b): 11.104
	Water Level Measuring Point (ft, bls): "+" = below land surface "-" = above land surface	Key Number, if necessary to access well: V4	Ground Condition of Well: Good
	Remarks:		

CASING INFO											
Casing I.D. (in) [a]:	1.5	**2.0**	2.2	3.0	4.0	4.3	**5.0**	6.0	7.0	8.0	**10.0**
Unit Casing Volume (gal/lin ft) [b]:	0.09	**0.16**	0.20	0.37	0.65	0.75	**1.0**	1.5	2.0	2.6	**4.1**

Sample ID #(s)/Time(s)	**No. of Containers/Volume/Type**	**Preserv.**	Filtered (Y/N)	Analysis	Pump Type or Bailer	**Discharge**
Sample ID = POC#2- Sample Time = 11:05 Am Depth of Pump Inlet = 60 feet btoc	Cubtainer	NP	Lab Filtered	Radiological	Electric submersible pump	X Water Discharged Container: Tank onsite
	500ml	NP	N	Major Cations/Anions wet chem, D Metals		
	250-ml	HNO3	N	T Metals		Water Discharged Directly Onto Site
	500-ml	NaOH	N	Cyanide		

Time (24 hr)	Water Level (ft bmp)	Odor (Y/N)	Volume Removed (gal)	Pumping Rate (gpm)	Flow Meter Read (gal)	Temp (C)	Conductivity (uS/cm)	pH	Turbidity (NTU)	Color	Remarks (clarity, etc.)
10:22AM	16.6	No	0	—	—	20.6	1637	6.64	22.2	Clear	Pump on/
10:39AM	24.9	NO	11	2.5	—	19.4	1818	6.77	14.0	clear	
10:48AM	25.8	No	20	2.5	—	19.3	3486	6.72	10.82	Clear	
10:57AM	26.5	NO	32	2.5	—	19.3	3469	6.59	9.02	clear	
11:05AM	27	NO	37	2.5	—	19.5	3474	6.64	9	Clear	
											pump off / **after** pump is off, record: water level, volume remove, and flow meter reading

Stabilization: +/- 10%, +/- 0.2 pH, +/- 10% conductivity, for 2 consecutive purge volumes

PLEASE COMPLETE THE FORM FOR ALL FIELDS

POC-2 Monthly Suite

	LABORATORY		
Analyte	**Total**	**Dissolved**	**Other**
Metals			
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Cadmium	X	X	
Chromium	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Hardness	X	~~X~~	
Major Anions			
Total Alkalinity	X		
Acidity	X		
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Nitrate-Nitrite as N 1	X	X	
Sulfate	X	X	
Parameters			
Total Dissolved Solids		X	
RadChem			
Gross Alpha Particle Activity	X	X	
Radium 226 + 228	X	X	
Cyanide			
Free CN	X	X	Free

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: August 21, 2018
Sample Received: August 24, 2018
Analysis Completed: August 31, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18H0633-01	< 2.2	< 0.5	< 0.7	< 0.7

Date of Analysis	8/29/2018	8/24/2018	8/24/2018	8/24/2018

8/31/2018
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality
Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report
Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ______________

PWS Name: ______________

Sample Date: August 21, 2018

Sample Time: 11:05 (24 hour clock)

Owner/Contact Person: ______________

Owner/Contact Fax Number: ______________

Owner/Contact Phone Number: ______________

Sample Collection Point

☐ EPDS # ______________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ______________

Date Q2 collected: ______________

Date Q3 collected: ______________

Date Q4 collected: ______________

RADIOCHEMICAL ANALYSIS
>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	8/29/2018	< 2.2	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	8/24/2018	< 0.7	
GammaRay HPGE		1 pCi/L	Radium 226	4020	8/24/2018	< 0.5	
GammaRay HPGE		1 pCi/L	Radium 228	4030	8/24/2018	< 0.7	

LABORATORY INFORMATION
>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60879

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 18H0633-01

Authorized Signature:

Date Public Water System Notified: ______________

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18H0633

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18H0633-01 Drinking Water Sampled:08/21/2018 11:05		[redacted]	
Radiochemistry, Radium 226/228	09/20/2018 11:05		
Radiochemistry, Gross Alpha	02/17/2019 11:05		
Containers Supplied:			

#60879

Released By ______ Date 8/23/18 1600 Received By UPS Date 8/23/18 1600

Released By ______ Date ______ Received By Scarlet D Carter Date 8/24/18 11:23

September 28, 2018

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 18I0459
Order Name: POC-2 Monthly

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 09/18/2018 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

Order: POC-2 Monthly

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
18I0459-01	POC#2-91718	Ground Water	09/17/2018 1310

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

B1	Target analyte detected in the method blank at or above the method reporting limit.
B3	Target analyte detected in calibration blank at or above the method reporting limit.
B7	Target analyte detected in method blank at or above the method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
D5	Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Lab Sample ID: 18I0459-01

Client Sample ID: POC#2-91718
Collection Date/Time: 09/17/2018 1310
Matrix: Ground Water
Order Name: POC-2 Monthly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2100				mg/L	10	09/19/2018 1035	09/21/2018 1214	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	500		40		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Iron	ND		3.0	D5	mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Magnesium	210		30		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Manganese	26		0.20		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
Zinc	6.2		0.40		mg/L	10	09/21/2018 1555	09/25/2018 1342	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Arsenic	0.0076		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Barium	0.018		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Beryllium	0.00049		0.00025		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Cadmium	0.0070		0.00025		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Chromium	ND		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Copper	0.00050		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Lead	ND		0.0050	D5	mg/L	10	09/21/2018 1555	09/24/2018 1423	MH
Nickel	0.071		0.00050		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Selenium	0.0021		0.0015		mg/L	1	09/21/2018 1555	09/24/2018 1838	MH
Thallium	ND		0.0050	D5	mg/L	10	09/21/2018 1555	09/24/2018 1423	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	09/26/2018 1050	09/26/2018 1653	AR
ICP Total Metals-E200.7 (4.4)									
Calcium	490		40		mg/L	10	09/19/2018 1035	09/21/2018 1214	MH
Iron	1.8		0.30		mg/L	1	09/19/2018 1035	09/21/2018 1354	MH
Magnesium	210		30		mg/L	10	09/19/2018 1035	09/21/2018 1214	MH
Manganese	26		0.20		mg/L	10	09/19/2018 1035	09/21/2018 1215	MH

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Lab Sample ID: 18I0459-01

Client Sample ID: POC#2-91718
Collection Date/Time: 09/17/2018 1310
Matrix: Ground Water
Order Name: POC-2 Monthly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Zinc	5.9		0.40		mg/L	10	09/19/2018 1035	09/21/2018 1215	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Arsenic	0.0068		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Barium	0.019		0.00050		mg/L	1	09/19/2018 1105	09/21/2018 1801	MH
Beryllium	0.00053		0.00025		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Cadmium	0.0071		0.00025		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Chromium	ND		0.00050	B3	mg/L	1	09/19/2018 1105	09/21/2018 1801	MH
Copper	0.0012		0.0010		mg/L	2	09/19/2018 1105	09/21/2018 1657	MH
Lead	0.0038		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Nickel	0.068		0.00050	B7	mg/L	1	09/19/2018 1105	09/21/2018 1801	MH
Selenium	0.00041	0.00025	0.0015	E4	mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
Thallium	ND		0.00050		mg/L	1	09/19/2018 1105	09/20/2018 1943	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8	mg/L	1	09/20/2018 1040	09/20/2018 1430	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	ND		0.50		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	09/18/2018 1130	09/18/2018 1149	EJ
Sulfate	2100		500		mg/L	100	09/18/2018 1305	09/18/2018 1329	EJ
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	170		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Alkalinity, Total (As CaCO3)	170		2.0		mg/L	1	09/25/2018 1500	09/25/2018 1600	EJ
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3200		20		mg/L	1	09/19/2018 0819	09/27/2018 0940	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	09/19/2018 1000	09/21/2018 1505	EJ

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2-91718
Project:	Ground Water	**Collection Date/Time:**	09/17/2018 1310
Work Order:	18I0459	**Matrix:**	Ground Water
Lab Sample ID:	18I0459-01	**Order Name:**	POC-2 Monthly

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Batch 1809195 - E200.8 (5.4)

Blank (1809195-BLK1) Prepared: 09/19/2018 Analyzed: 09/20/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	0.0040	0.00050	mg/L							B1
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							

LCS (1809195-BS1) Prepared: 09/19/2018 Analyzed: 09/20/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115			
Barium	0.051	0.00050	mg/L	0.05000		103	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		96	85-115			
Cadmium	0.048	0.00025	mg/L	0.05000		97	85-115			
Chromium	0.046	0.00050	mg/L	0.05000		93	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.053	0.00050	mg/L	0.05000		105	85-115			
Selenium	0.047	0.0015	mg/L	0.05000		95	85-115			
Thallium	0.048	0.00050	mg/L	0.05000		97	85-115			

LCS Dup (1809195-BSD1) Prepared: 09/19/2018 Analyzed: 09/20/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Antimony	0.048	0.00050	mg/L	0.05000		97	85-115	1	20	
Arsenic	0.048	0.00050	mg/L	0.05000		95	85-115	1	20	
Barium	0.050	0.00050	mg/L	0.05000		100	85-115	2	20	
Beryllium	0.047	0.00025	mg/L	0.05000		95	85-115	1	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	1	20	
Chromium	0.046	0.00050	mg/L	0.05000		92	85-115	1	20	
Copper	0.048	0.00050	mg/L	0.05000		96	85-115	2	20	
Lead	0.047	0.00050	mg/L	0.05000		94	85-115	4	20	
Nickel	0.051	0.00050	mg/L	0.05000		102	85-115	3	20	
Selenium	0.047	0.0015	mg/L	0.05000		93	85-115	1	20	
Thallium	0.047	0.00050	mg/L	0.05000		94	85-115	3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Batch 1809195 - E200.8 (5.4)

Matrix Spike (1809195-MS1) **Source: 18I0441-01** Prepared: 09/19/2018 Analyzed: 09/20/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Antimony	0.048	0.00050	mg/L	0.05000	ND	95	70-130			
Arsenic	0.049	0.00050	mg/L	0.05000	0.00026	97	70-130			
Barium	0.075	0.00050	mg/L	0.05000	0.035	79	70-130			
Beryllium	0.048	0.00025	mg/L	0.05000	0.000030	96	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	0.00023	94	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.00094	102	70-130			B3
Copper	0.050	0.00050	mg/L	0.05000	0.0048	90	70-130			
Lead	0.049	0.00050	mg/L	0.05000	0.0012	95	70-130			
Nickel	0.051	0.00050	mg/L	0.05000	0.0034	95	70-130			
Selenium	0.048	0.0015	mg/L	0.05000	ND	97	70-130			
Thallium	0.047	0.00050	mg/L	0.05000	ND	95	70-130			

Batch 1809196 - E200.7 (4.4)

Blank (1809196-BLK1) Prepared: 09/19/2018 Analyzed: 09/21/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							

LCS (1809196-BS1) Prepared: 09/19/2018 Analyzed: 09/21/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	9.8	4.0	mg/L	10.00		98	85-115			
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Magnesium	10	3.0	mg/L	10.00		100	85-115			
Manganese	0.52	0.020	mg/L	0.5000		105	85-115			
Zinc	0.50	0.040	mg/L	0.5000		99	85-115			

LCS Dup (1809196-BSD1) Prepared: 09/19/2018 Analyzed: 09/21/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	9.4	4.0	mg/L	10.00		94	85-115	4	20	
Iron	0.97	0.30	mg/L	1.000		97	85-115	5	20	
Magnesium	9.6	3.0	mg/L	10.00		96	85-115	5	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	5	20	
Zinc	0.47	0.040	mg/L	0.5000		94	85-115	5	20	

Matrix Spike (1809196-MS1) **Source: 18I0418-02** Prepared: 09/19/2018 Analyzed: 09/21/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	190	4.0	mg/L	10.00	190	NR	70-130			M3
Iron	1.9	0.30	mg/L	1.000	0.99	92	70-130			
Magnesium	47	3.0	mg/L	10.00	39	81	70-130			
Manganese	0.59	0.020	mg/L	0.5000	0.079	103	70-130			
Zinc	0.68	0.040	mg/L	0.5000	0.20	96	70-130			

Matrix Spike (1809196-MS2) **Source: 18I0459-01** Prepared: 09/19/2018 Analyzed: 09/21/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	500	40	mg/L	10.00	490	118	70-130			
Iron	2.9	0.30	mg/L	1.000	1.8	108	70-130			
Magnesium	220	30	mg/L	10.00	210	113	70-130			
Manganese	26	0.20	mg/L	0.5000	26	92	70-130			
Zinc	6.3	0.40	mg/L	0.5000	5.9	94	70-130			

Batch 1809209 - E245.1

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809209 - E245.1										
Blank (1809209-BLK1)				Prepared & Analyzed: 09/20/2018						
Mercury	ND	0.0010	mg/L							
LCS (1809209-BS1)				Prepared & Analyzed: 09/20/2018						
Mercury	0.0050	0.0010	mg/L	0.005000		100	85-115			
LCS Dup (1809209-BSD1)				Prepared & Analyzed: 09/20/2018						
Mercury	0.0049	0.0010	mg/L	0.005000		97	85-115	3	20	
Matrix Spike (1809209-MS1)		**Source: 18I0446-01**		Prepared & Analyzed: 09/20/2018						
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115			
Matrix Spike Dup (1809209-MSD1)		**Source: 18I0446-01**		Prepared & Analyzed: 09/20/2018						
Mercury	0.0049	0.0010	mg/L	0.005000	ND	98	85-115	0.1	20	
Batch 1809226 - E 200.8 (5.4)										
Blank (1809226-BLK1)				Prepared & Analyzed: 09/24/2018						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1809226-BS1)				Prepared & Analyzed: 09/24/2018						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115			
Barium	0.050	0.00050	mg/L	0.05000		100	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		101	85-115			
Chromium	0.052	0.00050	mg/L	0.05000		103	85-115			
Copper	0.051	0.00050	mg/L	0.05000		102	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Nickel	0.051	0.00050	mg/L	0.05000		103	85-115			
Selenium	0.049	0.0015	mg/L	0.05000		97	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Batch 1809226 - E 200.8 (5.4)

LCS Dup (1809226-BSD1) Prepared & Analyzed: 09/24/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Antimony	0.051	0.00050	mg/L	0.05000		102	85-115	4	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	0.5	20	
Barium	0.052	0.00050	mg/L	0.05000		104	85-115	4	20	
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115	0.3	20	
Cadmium	0.052	0.00025	mg/L	0.05000		105	85-115	4	20	
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Copper	0.052	0.00050	mg/L	0.05000		104	85-115	1	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	0.3	20	
Nickel	0.051	0.00050	mg/L	0.05000		101	85-115	2	20	
Selenium	0.049	0.0015	mg/L	0.05000		97	85-115	0.004	20	
Thallium	0.051	0.00050	mg/L	0.05000		101	85-115	3	20	

Matrix Spike (1809226-MS1) **Source: 18I0523-01** Prepared & Analyzed: 09/24/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Antimony	0.048	0.00050	mg/L	0.05000	0.00034	94	70-130			
Arsenic	0.056	0.00050	mg/L	0.05000	0.0055	101	70-130			
Barium	0.070	0.00050	mg/L	0.05000	0.025	90	70-130			
Beryllium	0.050	0.00025	mg/L	0.05000	0.000045	100	70-130			
Cadmium	0.048	0.00025	mg/L	0.05000	0.000087	96	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.00030	103	70-130			
Copper	0.050	0.00050	mg/L	0.05000	0.0023	96	70-130			
Lead	0.048	0.00050	mg/L	0.05000	0.00024	96	70-130			
Nickel	0.049	0.00050	mg/L	0.05000	ND	98	70-130			
Selenium	0.052	0.0015	mg/L	0.05000	0.00036	104	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.000064	95	70-130			

Batch 1809243 - E 200.7 (4.4)

Blank (1809243-BLK1) Prepared & Analyzed: 09/25/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							

LCS (1809243-BS1) Prepared & Analyzed: 09/25/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	9.9	4.0	mg/L	10.00		99	85-115			
Iron	1.0	0.30	mg/L	1.000		103	85-115			
Magnesium	10	3.0	mg/L	10.00		100	85-115			
Manganese	0.52	0.020	mg/L	0.5000		103	85-115			
Zinc	0.53	0.040	mg/L	0.5000		106	85-115			

LCS Dup (1809243-BSD1) Prepared & Analyzed: 09/25/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Calcium	9.6	4.0	mg/L	10.00		96	85-115	4	20	
Iron	1.0	0.30	mg/L	1.000		101	85-115	2	20	
Magnesium	9.8	3.0	mg/L	10.00		98	85-115	1	20	
Manganese	0.52	0.020	mg/L	0.5000		103	85-115	0.01	20	
Zinc	0.52	0.040	mg/L	0.5000		105	85-115	1	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809243 - E 200.7 (4.4)										
Matrix Spike (1809243-MS1)		**Source: 18I0523-01**		Prepared & Analyzed: 09/25/2018						
Calcium	27	4.0	mg/L	10.00	18	89	70-130			
Iron	1.0	0.30	mg/L	1.000	0.053	98	70-130			
Magnesium	12	3.0	mg/L	10.00	2.1	98	70-130			
Manganese	0.52	0.020	mg/L	0.5000	0.012	101	70-130			
Zinc	0.53	0.040	mg/L	0.5000	ND	105	70-130			
Batch 1809257 - E 245.1										
Blank (1809257-BLK1)				Prepared & Analyzed: 09/26/2018						
Mercury	ND	0.00050	mg/L							
LCS (1809257-BS1)				Prepared & Analyzed: 09/26/2018						
Mercury	0.0048	0.00050	mg/L	0.005000		96	85-115			
LCS Dup (1809257-BSD1)				Prepared & Analyzed: 09/26/2018						
Mercury	0.0048	0.00050	mg/L	0.005000		97	85-115	0.5	20	
Matrix Spike (1809257-MS1)		**Source: 18I0527-01**		Prepared & Analyzed: 09/26/2018						
Mercury	0.0045	0.00050	mg/L	0.005000	ND	90	85-115			
Matrix Spike Dup (1809257-MSD1)		**Source: 18I0527-01**		Prepared & Analyzed: 09/26/2018						
Mercury	0.0046	0.00050	mg/L	0.005000	ND	92	85-115	2	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809191 - SM2540 C										
Duplicate (1809191-DUP1)	**Source: 18I0440-01**			Prepared: 09/19/2018 Analyzed: 09/21/2018						
Total Dissolved Solids (Residue, Filterable)	640	20	mg/L		650			3	5	
Batch 1809218 - SM4500-CN BE										
Blank (1809218-BLK1)				Prepared: 09/19/2018 Analyzed: 09/21/2018						
Cyanide	ND	0.10	mg/L							
LCS (1809218-BS1)				Prepared: 09/19/2018 Analyzed: 09/21/2018						
Cyanide	2.0	0.10	mg/L	2.000		99	90-110			
LCS Dup (1809218-BSD1)				Prepared: 09/19/2018 Analyzed: 09/21/2018						
Cyanide	2.0	0.10	mg/L	2.000		99	90-110	0.4	20	
Matrix Spike (1809218-MS1)	**Source: 18I0189-02**			Prepared: 09/19/2018 Analyzed: 09/21/2018						
Cyanide	1.9	0.10	mg/L	2.000	ND	96	70-130			
Matrix Spike Dup (1809218-MSD1)	**Source: 18I0189-02**			Prepared: 09/19/2018 Analyzed: 09/21/2018						
Cyanide	2.0	0.10	mg/L	2.000	ND	99	70-130	4	20	
Batch 1809246 - SM2320B										
LCS (1809246-BS1)				Prepared & Analyzed: 09/25/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		98	90-110			
LCS Dup (1809246-BSD1)				Prepared & Analyzed: 09/25/2018						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		98	90-110	0	10	
Matrix Spike (1809246-MS1)	**Source: 18I0441-01**			Prepared & Analyzed: 09/25/2018						
Alkalinity, Total (As CaCO3)	290	2.0	mg/L	250.0	62	93	70-130			
Matrix Spike Dup (1809246-MSD1)	**Source: 18I0441-01**			Prepared & Analyzed: 09/25/2018						
Alkalinity, Total (As CaCO3)	290	2.0	mg/L	250.0	62	93	70-130	0	10	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 18I0459
Date Received: 09/18/2018

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1809175 - E300.0 (2.1)										
Blank (1809175-BLK1)				Prepared & Analyzed: 09/18/2018						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1809175-BS1)				Prepared & Analyzed: 09/18/2018						
Fluoride	2.0	0.50	mg/L	2.000		100	90-110			
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		97	90-110			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		101	90-110			
Sulfate	12	5.0	mg/L	12.50		98	90-110			
LCS Dup (1809175-BSD1)				Prepared & Analyzed: 09/18/2018						
Fluoride	2.0	0.50	mg/L	2.000		99	90-110	0.8	10	
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		96	90-110	0.5	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		101	90-110	0.4	10	
Sulfate	12	5.0	mg/L	12.50		98	90-110	0.5	10	
Matrix Spike (1809175-MS1)	**Source: 18I0463-02**			Prepared & Analyzed: 09/18/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.10	98	80-120			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.19	96	80-120			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500	ND	103	80-120			
Sulfate	13	5.0	mg/L	12.50	1.4	90	80-120			
Matrix Spike (1809175-MS2)	**Source: 18I0510-04**			Prepared & Analyzed: 09/18/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.31	94	80-120			
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.18	96	80-120			
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500	ND	105	80-120			
Sulfate	13	5.0	mg/L	12.50	1.4	92	80-120			
Matrix Spike Dup (1809175-MSD1)	**Source: 18I0463-02**			Prepared & Analyzed: 09/18/2018						
Fluoride	2.1	0.50	mg/L	2.000	0.10	98	80-120	0.5	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000	0.19	95	80-120	0.4	10	
Nitrogen, Nitrite (As N)	2.6	0.10	mg/L	2.500	ND	103	80-120	0.3	10	
Sulfate	13	5.0	mg/L	12.50	1.4	89	80-120	0.2	10	
Matrix Spike Dup (1809175-MSD2)	**Source: 18I0510-04**			Prepared & Analyzed: 09/18/2018						
Fluoride	2.2	0.50	mg/L	2.000	0.31	96	80-120	2	10	
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000	0.18	98	80-120	2	10	
Nitrogen, Nitrite (As N)	2.7	0.10	mg/L	2.500	ND	107	80-120	2	10	
Sulfate	13	5.0	mg/L	12.50	1.4	93	80-120	1	10	

TURNER LABORATORIES INC.

2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 18I0459 DATE 9/18/18 PAGE 1 OF 1

PROJECT NAME ____________ # ____________

CONTACT NAME Johnny Pappas, Sarah Richman

COMPANY NAME AMI/South 32

ADDRESS 2210 East Fort Lowell Rd

CITY Tucson STATE AZ ZIP CODE 85719

PHONE ____________ FAX ____________

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	Cu/Pb Testing	See attached
Poc#2-91718	9-17-18	1:10 Pm		GW	5		✓

1. RELINQUISHED BY:
Signature
Printed Name Luis Lagunas
Firm AMI/South 32
Date/Time 9-18-18 7:00am

2. RECEIVED BY:
Signature Juda V
Printed Name JUDA VILLA
Firm BZD
Date/Time 9/18/18 9A

3. RELINQUISHED BY:
Signature
Printed Name JUDA VILLA
Firm BZD
Date/Time 9/18/18 10:30

4. RECEIVED BY:
Signature LeandraX Marshall
Printed Name LeandraX Marshall
Firm TURNER LABORATORIES, INC.
Date/Time 9/18/18 10:30

TURNAROUND REQUIREMENTS:

____ Standard (approx.10 days)*

____ Next day ____ 2 Day ____ 5 Day*

____ Email Preliminary Results To: ____________

* Working Days

REPORT REQUIREMENTS:

____ I. Routine Report

____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)

____ III. Date Validation Report (includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:

Account ____ Y ____ N

P.O. # ____________

Bill to: ____________

SAMPLE RECEIPT:

Total Containers 5

Temperature 2.1

☒ Wet Ice ☐ Blue Ice

***LEGEND**

DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☒	Preservation Confirmation ☒
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☒	Appropriate Head Space ☒
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☒	Received Within Hold Time ☒

POC-2 Monthly Suite

	LABORATORY		
Analyte	**Total**	**Dissolved**	**Other**
Metals			
Antimony	X ✓	X ✓	
Arsenic	X ✓	X ✓	
Barium	X ✓	X ✓	
Beryllium	X ✓	X ✓	
Cadmium	X ✓	X ✓	
Chromium	X ✓	X ✓	
Copper	X ✓	X ✓	
Iron	X ✓	X ✓	
Lead	X ✓	X ✓	
Manganese	X ✓	X ✓	
Mercury	X ✓	X ✓	
Nickel	X ✓	X ✓	
Selenium	X ✓	X ✓	
Thallium	X ✓	X ✓	
Zinc	X ✓	X ✓	
Major Cations			
Hardness	X ✓	X ✓	
Major Anions			
Total Alkalinity	X ✓		
Acidity	X ✓		
Fluoride	X ✓	X ✓	
Nitrate – Nitrite as N	X ✓	X ✓	
Nitrite - N	X ✓	X ✓	
Nitrate-Nitrite as N 1	X ✓	X ✓	
Sulfate	X ✓	X ✓	
Parameters			
Total Dissolved Solids		X ✓	
RadChem			
Gross Alpha Particle Activity	X ✓	X ✓	
Radium 226 + 228	X ✓	X ✓	
Cyanide			
Free CN	X ✓	X ✓	Free

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: September 17, 2018
Sample Received: September 19, 2018
Analysis Completed: September 28, 2018

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
18I0459-01	< 2.1	< 0.5	< 0.7	< 0.7

Date of Analysis	9/26/2018	9/21/2018	9/21/2018	9/21/2018

9/28/2018

Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ____________

PWS Name: ____________

Sample Date: September 17, 2018

Sample Time: 13:10 (24 hour clock)

Owner/Contact Person: ____________

Owner/Contact Fax Number: ____________

Owner/Contact Phone Number: ____________

Sample Collection Point
☐ EPDS # ____________

Compliance Sample Type:

☐ Reduced Monitoring
☐ Quarterly
☐ Composite of four quarterly samples

Date Q1 collected: ____________
Date Q2 collected: ____________
Date Q3 collected: ____________
Date Q4 collected: ____________

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	9/26/2018	< 2.1	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	9/21/2018	< 0.7	
GammaRay HPGE		1 pCi/L	Radium 226	4020	9/21/2018	< 0.5	
GammaRay HPGE		1 pCi/L	Radium 228	4030	9/21/2018	< 0.7	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE60992
Lab ID Number: AZ0462
Lab Name: Radiation Safety Engineering, Inc.
Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459
Comments: 18I0459-01
Authorized Signature: ____________
Date Public Water System Notified: ____________

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

18I0459

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Max DiSante

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 18I0459-01 Drinking Water Sampled:09/17/2018 13:10		[redacted]	
Radiochemistry, Radium 226/228	10/17/2018 13:10		
Radiochemistry, Gross Alpha	03/16/2019 13:10		
Containers Supplied:			

DWAR 9 Form

#60992

9/28/18
DWAR is
needed per
K. Brim

Leandia X. Marshall	9/18/18 16:00	UPS	9/18/18 16:00
Released By	Date	Received By	Date
		Scarlet D Conton	9/19/18 9:55
Released By	Date	Received By	Date

April 12, 2019

Johnny Pappas
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 19D0030
Order Name: POC-2 Quarterly Suite

RE: Ground Water

Dear Johnny Pappas,

Turner Laboratories, Inc. received 1 sample(s) on 04/01/2019 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth C Kasik

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

Order: POC-2 Quarterly Suite

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
19D0030-01	POC#2-033119-1056	Ground Water	03/31/2019 1056

Client:	Arizona Minerals Inc.
Project:	Ground Water
Work Order:	19D0030
Date Received:	04/01/2019

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
M6	Matrix spike recovery was high. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Lab Sample ID: 19D0030-01

Client Sample ID: POC#2-033119-1056
Collection Date/Time: 03/31/2019 1056
Matrix: Ground Water
Order Name: POC-2 Quarterly Suite

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	2000		110		mg/L	10	04/01/2019 1525	04/02/2019 1456	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1900				mg/L	10	04/04/2019 0805	04/08/2019 1411	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	04/01/2019 1505	04/01/2019 1508	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	470		40	M3	mg/L	10	04/01/2019 1525	04/02/2019 1456	MH
Iron	0.99		0.30		mg/L	1	04/01/2019 1525	04/02/2019 1443	MH
Magnesium	210		3.0	M3	mg/L	1	04/01/2019 1525	04/02/2019 1443	MH
Manganese	22		0.20	M3	mg/L	10	04/01/2019 1525	04/02/2019 1457	MH
Zinc	5.0		0.40	M3	mg/L	10	04/01/2019 1525	04/02/2019 1457	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Arsenic	0.0075		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Barium	0.019		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Beryllium	0.00036		0.00025		mg/L	1	04/01/2019 1525	04/05/2019 1545	MH
Cadmium	0.0064		0.00025		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Chromium	0.00093		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Copper	0.0057		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Lead	ND		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1545	MH
Nickel	0.057		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Selenium	0.0021		0.0015		mg/L	1	04/01/2019 1525	04/05/2019 1250	MH
Thallium	ND		0.00050		mg/L	1	04/01/2019 1525	04/05/2019 1545	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND		0.00050		mg/L	1	04/09/2019 1130	04/09/2019 1821	MH
ICP Total Metals-E200.7 (4.4)									

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2-033119-1056
Project:	Ground Water	**Collection Date/Time:**	03/31/2019 1056
Work Order:	19D0030	**Matrix:**	Ground Water
Lab Sample ID:	19D0030-01	**Order Name:**	POC-2 Quarterly Suite

Analyses	**Result**	**MDL**	**PQL**	**Qual**	**Units**	**DF**	**Prep Date**	**Analysis Date**	**Analyst**
Calcium	460		40		mg/L	10	04/04/2019 0805	04/08/2019 1406	MH
Iron	1.4		0.30		mg/L	1	04/04/2019 0805	04/08/2019 1411	MH
Magnesium	190		3.0		mg/L	1	04/04/2019 0805	04/08/2019 1411	MH
Manganese	23		0.20		mg/L	10	04/04/2019 0805	04/08/2019 1407	MH
Zinc	5.1		0.40		mg/L	10	04/04/2019 0805	04/08/2019 1407	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Arsenic	0.0059		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Barium	0.022		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Beryllium	0.00057		0.00025		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Cadmium	0.0060		0.00025		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Chromium	ND		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1753	MH
Copper	0.0053		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Lead	0.0030		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Nickel	0.060		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Selenium	0.0014	0.00025	0.0015	E4	mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
Thallium	ND		0.00050		mg/L	1	04/03/2019 0910	04/04/2019 1337	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.000079	0.0010	E8, L5	mg/L	1	04/08/2019 1220	04/08/2019 1718	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.87		0.50		mg/L	1	04/01/2019 1505	04/01/2019 1508	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	04/01/2019 1505	04/01/2019 1508	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	04/01/2019 1505	04/01/2019 1508	EJ
Sulfate	2000		500		mg/L	100	04/01/2019 1530	04/01/2019 1539	EJ
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	200		2.0		mg/L	1	04/02/2019 1455	04/02/2019 1545	CR
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	04/02/2019 1455	04/02/2019 1545	CR
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	04/02/2019 1455	04/02/2019 1545	CR
Alkalinity, Total (As CaCO3)	200		2.0		mg/L	1	04/02/2019 1455	04/02/2019 1545	CR
Total Dissolved Solids (Residue, Filterable)-SM2540 C									

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC#2-033119-1056
Project:	Ground Water	**Collection Date/Time:**	03/31/2019 1056
Work Order:	19D0030	**Matrix:**	Ground Water
Lab Sample ID:	19D0030-01	**Order Name:**	POC-2 Quarterly Suite

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)	2900		20		mg/L	1	04/04/2019 0944	04/09/2019 1625	EJ
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	04/09/2019 0930	04/09/2019 1530	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1904017 - E 200.7 (4.4)										
Blank (1904017-BLK1)				Prepared & Analyzed: 04/02/2019						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1904017-BS1)				Prepared & Analyzed: 04/02/2019						
Calcium	10	4.0	mg/L	10.00		103	85-115			
Iron	1.0	0.30	mg/L	1.000		104	85-115			
Magnesium	10	3.0	mg/L	10.00		103	85-115			
Manganese	0.49	0.020	mg/L	0.5000		99	85-115			
Zinc	0.49	0.040	mg/L	0.5000		97	85-115			
LCS Dup (1904017-BSD1)				Prepared & Analyzed: 04/02/2019						
Calcium	11	4.0	mg/L	10.00		106	85-115	2	20	
Iron	1.0	0.30	mg/L	1.000		104	85-115	0.09	20	
Magnesium	10	3.0	mg/L	10.00		103	85-115	0.03	20	
Manganese	0.49	0.020	mg/L	0.5000		98	85-115	0.5	20	
Zinc	0.48	0.040	mg/L	0.5000		97	85-115	0.4	20	
Matrix Spike (1904017-MS1)	**Source: 19D0030-01**			Prepared & Analyzed: 04/02/2019						
Calcium	460	40	mg/L	10.00	470	NR	70-130			M3
Iron	1.9	0.30	mg/L	1.000	0.99	90	70-130			
Magnesium	190	3.0	mg/L	10.00	210	NR	70-130			M3
Manganese	21	0.20	mg/L	0.5000	22	NR	70-130			M3
Zinc	5.1	0.40	mg/L	0.5000	5.0	8	70-130			M3
Matrix Spike (1904017-MS2)	**Source: 19D0066-05**			Prepared & Analyzed: 04/02/2019						
Calcium	560	40	mg/L	10.00	530	332	70-130			M3
Iron	1.1	0.30	mg/L	1.000	0.094	96	70-130			
Magnesium	120	3.0	mg/L	10.00	120	47	70-130			M3
Manganese	0.74	0.020	mg/L	0.5000	0.24	101	70-130			
Zinc	0.54	0.040	mg/L	0.5000	0.035	101	70-130			
Batch 1904018 - E 200.8 (5.4)										
Blank (1904018-BLK1)				Prepared & Analyzed: 04/05/2019						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1904018 - E 200.8 (5.4)										
LCS (1904018-BS1)				Prepared & Analyzed: 04/05/2019						
Antimony	0.049	0.00050	mg/L	0.05000		97	85-115			
Arsenic	0.049	0.00050	mg/L	0.05000		99	85-115			
Barium	0.048	0.00050	mg/L	0.05000		96	85-115			
Beryllium	0.050	0.00025	mg/L	0.05000		100	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115			
Chromium	0.047	0.00050	mg/L	0.05000		95	85-115			
Copper	0.050	0.00050	mg/L	0.05000		101	85-115			
Lead	0.048	0.00050	mg/L	0.05000		96	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		101	85-115			
Selenium	0.049	0.0015	mg/L	0.05000		97	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			
LCS Dup (1904018-BSD1)				Prepared & Analyzed: 04/05/2019						
Antimony	0.047	0.00050	mg/L	0.05000		95	85-115	3	20	
Arsenic	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Barium	0.047	0.00050	mg/L	0.05000		95	85-115	2	20	
Beryllium	0.049	0.00025	mg/L	0.05000		99	85-115	0.8	20	
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115	3	20	
Chromium	0.048	0.00050	mg/L	0.05000		96	85-115	2	20	
Copper	0.050	0.00050	mg/L	0.05000		100	85-115	0.6	20	
Lead	0.048	0.00050	mg/L	0.05000		95	85-115	0.5	20	
Nickel	0.050	0.00050	mg/L	0.05000		100	85-115	0.4	20	
Selenium	0.049	0.0015	mg/L	0.05000		99	85-115	2	20	
Thallium	0.049	0.00050	mg/L	0.05000		97	85-115	0.09	20	
Matrix Spike (1904018-MS1)	**Source: 19D0130-04**			Prepared & Analyzed: 04/05/2019						
Antimony	0.051	0.00050	mg/L	0.05000	0.0013	99	70-130			
Arsenic	0.056	0.00050	mg/L	0.05000	0.0018	109	70-130			
Barium	0.076	0.00050	mg/L	0.05000	0.025	101	70-130			
Beryllium	0.045	0.00025	mg/L	0.05000	ND	90	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	0.00043	97	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	0.0014	98	70-130			
Copper	0.047	0.00050	mg/L	0.05000	0.0028	89	70-130			
Lead	0.049	0.00050	mg/L	0.05000	0.00043	97	70-130			
Nickel	0.056	0.00050	mg/L	0.05000	0.0087	95	70-130			
Selenium	0.065	0.0015	mg/L	0.05000	0.0062	117	70-130			
Thallium	0.048	0.00050	mg/L	0.05000	0.00011	96	70-130			
Batch 1904042 - E200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1904042 - E200.8 (5.4)										
Blank (1904042-BLK1)				Prepared: 04/03/2019 Analyzed: 04/04/2019						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1904042-BS1)				Prepared: 04/03/2019 Analyzed: 04/04/2019						
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115			
Barium	0.050	0.00050	mg/L	0.05000		99	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		95	85-115			
Cadmium	0.048	0.00025	mg/L	0.05000		97	85-115			
Chromium	0.048	0.00050	mg/L	0.05000		97	85-115			
Copper	0.049	0.00050	mg/L	0.05000		98	85-115			
Lead	0.050	0.00050	mg/L	0.05000		101	85-115			
Nickel	0.049	0.00050	mg/L	0.05000		99	85-115			
Selenium	0.053	0.0015	mg/L	0.05000		105	85-115			
Thallium	0.048	0.00050	mg/L	0.05000		96	85-115			
LCS Dup (1904042-BSD1)				Prepared: 04/03/2019 Analyzed: 04/04/2019						
Antimony	0.048	0.00050	mg/L	0.05000		97	85-115	0.8	20	
Arsenic	0.049	0.00050	mg/L	0.05000		98	85-115	3	20	
Barium	0.049	0.00050	mg/L	0.05000		97	85-115	2	20	
Beryllium	0.048	0.00025	mg/L	0.05000		95	85-115	0.4	20	
Cadmium	0.048	0.00025	mg/L	0.05000		95	85-115	1	20	
Chromium	0.048	0.00050	mg/L	0.05000		96	85-115	0.6	20	
Copper	0.048	0.00050	mg/L	0.05000		97	85-115	2	20	
Lead	0.049	0.00050	mg/L	0.05000		99	85-115	2	20	
Nickel	0.049	0.00050	mg/L	0.05000		98	85-115	1	20	
Selenium	0.050	0.0015	mg/L	0.05000		101	85-115	4	20	
Thallium	0.047	0.00050	mg/L	0.05000		95	85-115	1	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1904042 - E200.8 (5.4)										
Matrix Spike (1904042-MS1)	**Source: 19C0607-02**			Prepared: 04/03/2019 Analyzed: 04/04/2019						
Antimony	0.050	0.00050	mg/L	0.05000	0.00036	99	70-130			
Arsenic	0.058	0.00050	mg/L	0.05000	ND	117	70-130			
Barium	0.051	0.00050	mg/L	0.05000	0.00011	101	70-130			
Beryllium	0.040	0.00025	mg/L	0.05000	0.000016	81	70-130			
Cadmium	0.047	0.00025	mg/L	0.05000	ND	93	70-130			
Chromium	0.047	0.0025	mg/L	0.05000	0.0010	92	70-130			
Copper	0.048	0.00050	mg/L	0.05000	0.0039	88	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00012	101	70-130			
Nickel	0.062	0.00050	mg/L	0.05000	0.018	89	70-130			
Selenium	0.086	0.0015	mg/L	0.05000	0.015	142	70-130			M6
Thallium	0.049	0.00050	mg/L	0.05000	0.00019	97	70-130			
Batch 1904054 - E200.7 (4.4)										
Blank (1904054-BLK1)				Prepared: 04/04/2019 Analyzed: 04/08/2019						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1904054-BS1)				Prepared: 04/04/2019 Analyzed: 04/08/2019						
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Iron	0.92	0.30	mg/L	1.000		92	85-115			
Magnesium	9.5	3.0	mg/L	10.00		95	85-115			
Manganese	0.48	0.020	mg/L	0.5000		97	85-115			
Zinc	0.46	0.040	mg/L	0.5000		93	85-115			
LCS Dup (1904054-BSD1)				Prepared: 04/04/2019 Analyzed: 04/08/2019						
Calcium	9.7	4.0	mg/L	10.00		97	85-115	0.7	20	
Iron	0.95	0.30	mg/L	1.000		95	85-115	4	20	
Magnesium	9.6	3.0	mg/L	10.00		96	85-115	0.5	20	
Manganese	0.49	0.020	mg/L	0.5000		97	85-115	0.6	20	
Zinc	0.46	0.040	mg/L	0.5000		93	85-115	0.3	20	
Matrix Spike (1904054-MS1)	**Source: 19C0630-01**			Prepared: 04/04/2019 Analyzed: 04/08/2019						
Calcium	54	4.0	mg/L	10.00	46	85	70-130			
Iron	1.3	0.30	mg/L	1.000	0.28	101	70-130			
Magnesium	33	3.0	mg/L	10.00	24	93	70-130			
Manganese	0.54	0.020	mg/L	0.5000	0.062	96	70-130			
Zinc	0.64	0.040	mg/L	0.5000	0.19	90	70-130			
Matrix Spike (1904054-MS2)	**Source: 19D0005-02**			Prepared: 04/04/2019 Analyzed: 04/08/2019						
Calcium	160	4.0	mg/L	10.00	160	65	70-130			M3
Iron	1.9	0.30	mg/L	1.000	1.1	81	70-130			
Magnesium	42	3.0	mg/L	10.00	33	90	70-130			
Manganese	0.56	0.020	mg/L	0.5000	0.083	95	70-130			
Zinc	0.64	0.040	mg/L	0.5000	0.17	95	70-130			
Batch 1904083 - E245.1										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1904083 - E245.1										
Blank (1904083-BLK1)				Prepared & Analyzed: 04/08/2019						
Mercury	ND	0.00050	mg/L							
LCS (1904083-BS1)				Prepared & Analyzed: 04/08/2019						
Mercury	0.0062	0.00050	mg/L	0.005000		123	85-115			L5
LCS Dup (1904083-BSD1)				Prepared & Analyzed: 04/08/2019						
Mercury	0.0059	0.00050	mg/L	0.005000		119	85-115	4	20	L5
Matrix Spike (1904083-MS1)		**Source: 19D0037-01**		Prepared & Analyzed: 04/08/2019						
Mercury	0.0058	0.00050	mg/L	0.005000	ND	117	70-130			
Matrix Spike (1904083-MS2)		**Source: 19D0236-01**		Prepared & Analyzed: 04/08/2019						
Mercury	0.0062	0.00050	mg/L	0.005000	ND	123	70-130			
Matrix Spike Dup (1904083-MSD1)		**Source: 19D0037-01**		Prepared & Analyzed: 04/08/2019						
Mercury	0.0061	0.00050	mg/L	0.005000	ND	122	70-130	5	20	
Matrix Spike Dup (1904083-MSD2)		**Source: 19D0236-01**		Prepared & Analyzed: 04/08/2019						
Mercury	0.0051	0.00050	mg/L	0.005000	ND	101	70-130	20	20	
Batch 1904097 - E 245.1										
Blank (1904097-BLK1)				Prepared & Analyzed: 04/09/2019						
Mercury	ND	0.00050	mg/L							
LCS (1904097-BS1)				Prepared & Analyzed: 04/09/2019						
Mercury	0.0049	0.00050	mg/L	0.005000		98	85-115			
LCS Dup (1904097-BSD1)				Prepared & Analyzed: 04/09/2019						
Mercury	0.0048	0.00050	mg/L	0.005000		97	85-115	2	20	
Matrix Spike (1904097-MS1)		**Source: 19D0130-01**		Prepared & Analyzed: 04/09/2019						
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115			
Matrix Spike Dup (1904097-MSD1)		**Source: 19D0130-01**		Prepared & Analyzed: 04/09/2019						
Mercury	0.0050	0.00050	mg/L	0.005000	ND	100	85-115	0.2	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1904026 - SM2320B										
Blank (1904026-BLK1)				Prepared & Analyzed: 04/02/2019						
Alkalinity, Bicarbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Total (As CaCO3)	ND	2.0	mg/L							
LCS (1904026-BS1)				Prepared & Analyzed: 04/02/2019						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		97	90-110			
LCS Dup (1904026-BSD1)				Prepared & Analyzed: 04/02/2019						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		97	90-110	0	10	
Matrix Spike (1904026-MS1)	**Source: 19D0037-01**			Prepared & Analyzed: 04/02/2019						
Alkalinity, Total (As CaCO3)	340	2.0	mg/L	250.0	100	97	70-130			
Matrix Spike Dup (1904026-MSD1)	**Source: 19D0037-01**			Prepared & Analyzed: 04/02/2019						
Alkalinity, Total (As CaCO3)	340	2.0	mg/L	250.0	100	98	70-130	0.6	10	
Batch 1904050 - SM2540 C										
Duplicate (1904050-DUP1)	**Source: 19D0005-01**			Prepared: 04/04/2019 Analyzed: 04/05/2019						
Total Dissolved Solids (Residue, Filterable)	1100	20	mg/L		1100			2	5	
Batch 1904105 - SM4500-CN BE										
Blank (1904105-BLK1)				Prepared & Analyzed: 04/09/2019						
Cyanide	ND	0.10	mg/L							
LCS (1904105-BS1)				Prepared & Analyzed: 04/09/2019						
Cyanide	2.0	0.10	mg/L	2.000		101	85-115			
LCS Dup (1904105-BSD1)				Prepared & Analyzed: 04/09/2019						
Cyanide	2.0	0.10	mg/L	2.000		101	85-115	0.2	15	
Matrix Spike (1904105-MS1)	**Source: 19D0037-01**			Prepared & Analyzed: 04/09/2019						
Cyanide	2.2	0.10	mg/L	2.000	ND	109	80-120			
Matrix Spike Dup (1904105-MSD1)	**Source: 19D0037-01**			Prepared & Analyzed: 04/09/2019						
Cyanide	2.1	0.10	mg/L	2.000	ND	105	80-120	4	15	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19D0030
Date Received: 04/01/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1904006 - E300.0 (2.1)										
Blank (1904006-BLK1)				Prepared & Analyzed: 04/01/2019						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1904006-BS1)				Prepared & Analyzed: 04/01/2019						
Fluoride	2.0	0.50	mg/L	2.000		101	90-110			
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000		98	90-110			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		100	90-110			
Sulfate	12	5.0	mg/L	12.50		100	90-110			
LCS Dup (1904006-BSD1)				Prepared & Analyzed: 04/01/2019						
Fluoride	2.1	0.50	mg/L	2.000		103	90-110	2	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		99	90-110	1	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		102	90-110	1	10	
Sulfate	13	5.0	mg/L	12.50		101	90-110	2	10	
Matrix Spike (1904006-MS1)	**Source: 19D0033-02**			Prepared & Analyzed: 04/01/2019						
Fluoride	2.3	0.50	mg/L	2.000	0.23	101	80-120			
Nitrogen, Nitrate (As N)	6.0	0.50	mg/L	5.000	1.2	95	80-120			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500	ND	100	80-120			
Sulfate	14	5.0	mg/L	12.50	2.7	89	80-120			
Matrix Spike Dup (1904006-MSD1)	**Source: 19D0033-02**			Prepared & Analyzed: 04/01/2019						
Fluoride	2.3	0.50	mg/L	2.000	0.23	103	80-120	1	10	
Nitrogen, Nitrate (As N)	6.1	0.50	mg/L	5.000	1.2	97	80-120	0.9	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500	ND	101	80-120	1	10	
Sulfate	14	5.0	mg/L	12.50	2.7	90	80-120	1	10	

TURNER LABORATORIES INC.

2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 19D0030 DATE 4/1/19 PAGE 1 OF 2

PROJECT NAME ____ # ____

CONTACT NAME Johnny Pazas, Sarah Richman

COMPANY NAME South 32

ADDRESS 2210 East Fort Lowell Road

CITY Tucson STATE AZ ZIP CODE 85719

PHONE ____ FAX ____

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	See Attached
POC#2-033119-1056	3-31-19	10:56			4	

1. RELINQUISHED BY:
Signature
Luis Loyanes
Printed Name
South 32
Firm
4/1/19 7:10am
Date/Time

2. RECEIVED BY:
Jeff Gilmore
Signature
Printed Name
Wild West Courier
Firm
4-1-19 12:50
Date/Time

3. RELINQUISHED BY:
Jeff Gilmore
Signature
Printed Name
Wild West Courier
Firm
4-1-19 14:48pm
Date/Time

4. RECEIVED BY:
Signature
h.c
Printed Name
TURNER LABORATORIES, INC.
Firm
4/1/19 1448
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
____
* Working Days

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 4
Temperature 3.8
☒ Wet Ice ☐ Blue Ice

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☑
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☑	Appropriate Head Space ☑
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☑	Received Within Hold Time ☑

POC-2 Quarterly Suite

	LABORATORY		
Analyte	**Total**	**Dissolved**	**Other**
Metals			
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Cadmium	X	X	
Chromium	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Hardness	X	X	
Major Anions			
Total Alkalinity	X		
Acidity	X		
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Nitrate-Nitrite as N 1	X	X	
Sulfate	X	X	
Parameters			
Total Dissolved Solids		X	
RadChem			
Gross Alpha Particle Activity	X	X	
Radium 226 + 228	X	X	
Cyanide			
Free CN	X	X	Free

FIELD MEASUREMENTS
pH
Specific conductance
Temperature
Depth to water

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: March 31, 2019
Sample Received: April 04, 2019
Analysis Completed: April 12, 2019

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
19D0030-01	2.2 ± 0.6	< 0.5	< 0.7	< 0.7

Date of Analysis	4/10/2019	4/5/2019	4/5/2019	4/5/2019

4/12/2019
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ____________

PWS Name: ____________

Sample Date: March 31, 2019

Sample Time: 10:56 (24 hour clock)

Owner/Contact Person: ____________

Owner/Contact Fax Number: ____________

Owner/Contact Phone Number: ____________

Sample Collection Point

☐ EPDS # ____________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ____________

Date Q2 collected: ____________

Date Q3 collected: ____________

Date Q4 collected: ____________

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	4/10/2019	2.2 ± 0.6	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	4/5/2019	< 0.7	
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/5/2019	< 0.5	
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/5/2019	< 0.7	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE61966

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 19D0030-01

Authorized Signature: ____________

Date Public Water System Notified: ____________

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

19D0030

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Elizabeth Kasik

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 19D0030-01 Drinking Water Sampled:03/31/2019 10:56		[redacted]	
Radiochemistry, Radium 226/228	04/30/2019 10:56		
Radiochemistry, Gross Alpha	09/27/2019 10:56		
Containers Supplied:			

DWAR-6

~~#9~~ SDC
61966

~~Released By~~	4/3/19 16:00 Date	UPS Received By	4/3/19 16:00 Date
Released By	Date	Scarlet D. Carter Received By	4/4/19 11:00 Date

TURNER
LABORATORIES INC.

October 29, 2019

Sarah Richman
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (805) 617-9300
FAX

Work Order No.: 19J0374

RE: Ground Water

Dear Sarah Richman,

Turner Laboratories, Inc. received 1 sample(s) on 10/10/2019 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
19J0374-01	POC#2-033119-1056	Ground Water	10/10/2019 1013

Client:	Arizona Minerals Inc.
Project:	Ground Water
Work Order:	19J0374
Date Received:	10/10/2019

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

B1	Target analyte detected in the method blank at or above the method reporting limit.
B5	Target analyte detected in method blank at or above the method reporting limit, but below trigger level or MCL.
B7	Target analyte detected in method blank at or above the method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
D5	Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M2	Matrix spike recovery was low; the associated LCS/LCSD was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Lab Sample ID: 19J0374-01

Client Sample ID: POC#2-033119-1056
Collection Date/Time: 10/10/2019 1013
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	1900		22		mg/L	1	10/14/2019 1040	10/19/2019 1052	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2100				mg/L	1	10/14/2019 1120	10/21/2019 1339	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	10/10/2019 1611	10/10/2019 1653	EJ
ICP Dissolved Metals-E 200.7 (4.4)									
Calcium	460		4.0	M3	mg/L	1	10/14/2019 1040	10/19/2019 1052	MH
Iron	0.83		0.30		mg/L	1	10/14/2019 1040	10/19/2019 1053	MH
Magnesium	190		3.0		mg/L	1	10/14/2019 1040	10/19/2019 1052	MH
Manganese	23		0.20	M3	mg/L	10	10/14/2019 1040	10/19/2019 1101	MH
Zinc	4.6		0.040	M3	mg/L	1	10/14/2019 1040	10/19/2019 1053	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	ND		0.00050		mg/L	1	10/14/2019 1040	10/15/2019 1246	MH
Arsenic	0.0071		0.00050		mg/L	1	10/14/2019 1040	10/15/2019 1246	MH
Barium	0.019		0.00050		mg/L	1	10/14/2019 1040	10/15/2019 1246	MH
Beryllium	ND		0.0013	D5	mg/L	5	10/14/2019 1040	10/15/2019 1116	MH
Cadmium	0.0055		0.00025		mg/L	1	10/14/2019 1040	10/15/2019 1246	MH
Chromium	ND		0.0025	D5	mg/L	5	10/14/2019 1040	10/15/2019 1116	MH
Copper	0.0030		0.00050		mg/L	1	10/14/2019 1040	10/15/2019 1246	MH
Lead	ND		0.00050		mg/L	1	10/14/2019 1040	10/15/2019 1246	MH
Nickel	0.055		0.0025		mg/L	5	10/14/2019 1040	10/15/2019 1116	MH
Selenium	0.0027	0.0012	0.0075	E4	mg/L	5	10/14/2019 1040	10/15/2019 1116	MH
Thallium	ND		0.00050		mg/L	1	10/14/2019 1040	10/15/2019 1246	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	0.00010	0.0000041	0.00050	E4	mg/L	1	10/22/2019 1408	10/22/2019 1502	AR
ICP Total Metals-E200.7 (4.4)									

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Lab Sample ID: 19J0374-01

Client Sample ID: POC#2-033119-1056
Collection Date/Time: 10/10/2019 1013
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Calcium	480		4.0		mg/L	1	10/14/2019 1120	10/21/2019 1339	MH
Iron	2.0		0.30		mg/L	1	10/14/2019 1120	10/21/2019 1339	MH
Magnesium	210		3.0		mg/L	1	10/14/2019 1120	10/21/2019 1339	MH
Manganese	22		0.20		mg/L	10	10/14/2019 1120	10/21/2019 1345	MH
Zinc	4.4		0.040		mg/L	1	10/14/2019 1120	10/21/2019 1339	MH
ICP/MS Total Metals-E200.8 (5.4)									
Antimony	ND		0.0025	D5	mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Arsenic	0.0048		0.0025		mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Barium	0.027		0.0025		mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Beryllium	0.00060		0.00025		mg/L	1	10/16/2019 1015	10/17/2019 1333	MH
Cadmium	0.0076		0.0013		mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Chromium	ND		0.0025	D5	mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Copper	0.0078		0.0025	B5	mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Lead	0.0062		0.00050		mg/L	1	10/16/2019 1015	10/17/2019 1333	MH
Nickel	0.066		0.0025	B7	mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Selenium	ND	0.0012	0.0075	E8	mg/L	5	10/16/2019 1015	10/17/2019 1250	MH
Thallium	ND		0.00050		mg/L	1	10/16/2019 1015	10/17/2019 1333	MH
CVAA Total Mercury-E245.1									
Mercury	0.000066	0.000041	0.0010	E4	mg/L	1	10/17/2019 1101	10/17/2019 1605	AR
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.77		0.50		mg/L	1	10/10/2019 1611	10/18/2019 1117	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	10/10/2019 1611	10/10/2019 1653	EJ
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	10/10/2019 1611	10/10/2019 1653	EJ
Sulfate	2200		500		mg/L	100	10/10/2019 1611	10/11/2019 2209	EJ
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	190		2.0		mg/L	1	10/14/2019 1400	10/14/2019 1606	CR
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	10/14/2019 1400	10/14/2019 1606	CR
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	10/14/2019 1400	10/14/2019 1606	CR
Alkalinity, Total (As CaCO3)	190		2.0		mg/L	1	10/14/2019 1400	10/14/2019 1606	CR
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3000		20		mg/L	1	10/13/2019 1023	10/15/2019 1710	CR

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Lab Sample ID: 19J0374-01

Client Sample ID: POC#2-033119-1056
Collection Date/Time: 10/10/2019 1013
Matrix: Ground Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	10/16/2019 0930	10/16/2019 1610	EJ

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910169 - E 200.8 (5.4)										
Blank (1910169-BLK1)				Prepared & Analyzed: 10/15/2019						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1910169-BS1)				Prepared & Analyzed: 10/15/2019						
Antimony	0.047	0.00050	mg/L	0.05000		94	85-115			
Arsenic	0.047	0.00050	mg/L	0.05000		94	85-115			
Barium	0.048	0.00050	mg/L	0.05000		96	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		95	85-115			
Cadmium	0.047	0.00025	mg/L	0.05000		94	85-115			
Chromium	0.047	0.00050	mg/L	0.05000		93	85-115			
Copper	0.047	0.00050	mg/L	0.05000		93	85-115			
Lead	0.047	0.00050	mg/L	0.05000		95	85-115			
Nickel	0.046	0.00050	mg/L	0.05000		92	85-115			
Selenium	0.050	0.0015	mg/L	0.05000		100	85-115			
Thallium	0.048	0.00050	mg/L	0.05000		96	85-115			
LCS Dup (1910169-BSD1)				Prepared & Analyzed: 10/15/2019						
Antimony	0.047	0.00050	mg/L	0.05000		95	85-115	0.7	20	
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115	2	20	
Barium	0.048	0.00050	mg/L	0.05000		96	85-115	0.2	20	
Beryllium	0.048	0.00025	mg/L	0.05000		96	85-115	0.6	20	
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115	2	20	
Chromium	0.047	0.00050	mg/L	0.05000		95	85-115	2	20	
Copper	0.046	0.00050	mg/L	0.05000		92	85-115	1	20	
Lead	0.048	0.00050	mg/L	0.05000		96	85-115	0.7	20	
Nickel	0.047	0.00050	mg/L	0.05000		94	85-115	1	20	
Selenium	0.050	0.0015	mg/L	0.05000		100	85-115	0.3	20	
Thallium	0.048	0.00050	mg/L	0.05000		96	85-115	0.2	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910169 - E 200.8 (5.4)										
Matrix Spike (1910169-MS1)	**Source: 19J0382-01**			Prepared & Analyzed: 10/15/2019						
Antimony	0.052	0.00050	mg/L	0.05000	0.000048	104	70-130			
Arsenic	0.054	0.00050	mg/L	0.05000	0.0016	105	70-130			
Barium	0.077	0.00050	mg/L	0.05000	0.028	97	70-130			
Beryllium	0.039	0.00025	mg/L	0.05000	0.000020	79	70-130			
Cadmium	0.046	0.00025	mg/L	0.05000	ND	92	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.0027	99	70-130			
Copper	0.042	0.00050	mg/L	0.05000	0.0027	79	70-130			
Lead	0.046	0.00050	mg/L	0.05000	0.000073	92	70-130			
Nickel	0.053	0.00050	mg/L	0.05000	0.0074	92	70-130			
Selenium	0.055	0.0015	mg/L	0.05000	0.0020	107	70-130			
Thallium	0.047	0.00050	mg/L	0.05000	0.000062	94	70-130			
Batch 1910192 - E200.7 (4.4)										
Blank (1910192-BLK1)				Prepared: 10/14/2019 Analyzed: 10/21/2019						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1910192-BS1)				Prepared: 10/14/2019 Analyzed: 10/21/2019						
Calcium	9.9	4.0	mg/L	10.00		99	85-115			
Iron	1.0	0.30	mg/L	1.000		100	85-115			
Magnesium	9.9	3.0	mg/L	10.00		99	85-115			
Manganese	0.50	0.020	mg/L	0.5000		100	85-115			
Zinc	0.48	0.040	mg/L	0.5000		97	85-115			
LCS Dup (1910192-BSD1)				Prepared: 10/14/2019 Analyzed: 10/21/2019						
Calcium	9.8	4.0	mg/L	10.00		98	85-115	0.2	20	
Iron	1.0	0.30	mg/L	1.000		101	85-115	0.7	20	
Magnesium	9.9	3.0	mg/L	10.00		99	85-115	0.2	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	0.4	20	
Zinc	0.48	0.040	mg/L	0.5000		96	85-115	0.5	20	
Matrix Spike (1910192-MS1)	**Source: 19J0206-01**			Prepared: 10/14/2019 Analyzed: 10/21/2019						
Calcium	210	4.0	mg/L	10.00	200	64	70-130			M3
Iron	2.0	0.30	mg/L	1.000	1.1	97	70-130			
Magnesium	52	3.0	mg/L	10.00	43	88	70-130			
Manganese	0.55	0.020	mg/L	0.5000	0.073	95	70-130			
Zinc	0.67	0.040	mg/L	0.5000	0.20	94	70-130			
Matrix Spike (1910192-MS2)	**Source: 19J0390-01**			Prepared: 10/14/2019 Analyzed: 10/22/2019						
Calcium	120	4.0	mg/L	10.00	120	50	70-130			M3
Iron	0.96	0.30	mg/L	1.000	0.028	93	70-130			
Magnesium	17	3.0	mg/L	10.00	8.4	90	70-130			
Manganese	0.46	0.020	mg/L	0.5000	0.015	89	70-130			
Zinc	0.45	0.040	mg/L	0.5000	0.016	87	70-130			
Batch 1910228 - E200.8 (5.4)										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910228 - E200.8 (5.4)										
Blank (1910228-BLK1)				Prepared: 10/16/2019 Analyzed: 10/17/2019						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	0.0035	0.00050	mg/L							B1
Lead	ND	0.00050	mg/L							
Nickel	0.0048	0.00050	mg/L							B1
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
LCS (1910228-BS1)				Prepared: 10/16/2019 Analyzed: 10/17/2019						
Antimony	0.052	0.00050	mg/L	0.05000		104	85-115			
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115			
Barium	0.051	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.052	0.00025	mg/L	0.05000		105	85-115			
Cadmium	0.052	0.00025	mg/L	0.05000		104	85-115			
Chromium	0.050	0.00050	mg/L	0.05000		99	85-115			
Copper	0.050	0.00050	mg/L	0.05000		100	85-115			
Lead	0.050	0.00050	mg/L	0.05000		100	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		101	85-115			
Selenium	0.048	0.0015	mg/L	0.05000		97	85-115			
Thallium	0.047	0.00050	mg/L	0.05000		94	85-115			
LCS Dup (1910228-BSD1)				Prepared: 10/16/2019 Analyzed: 10/17/2019						
Antimony	0.052	0.00050	mg/L	0.05000		105	85-115	1	20	
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115	0.01	20	
Barium	0.052	0.00050	mg/L	0.05000		104	85-115	2	20	
Beryllium	0.052	0.00025	mg/L	0.05000		103	85-115	1	20	
Cadmium	0.051	0.00025	mg/L	0.05000		103	85-115	1	20	
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115	2	20	
Copper	0.051	0.00050	mg/L	0.05000		101	85-115	1	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	0.5	20	
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115	3	20	
Selenium	0.048	0.0015	mg/L	0.05000		96	85-115	0.7	20	
Thallium	0.047	0.00050	mg/L	0.05000		95	85-115	0.1	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910228 - E200.8 (5.4)										
Matrix Spike (1910228-MS1)		**Source: 19J0320-01**		Prepared: 10/16/2019 Analyzed: 10/17/2019						
Antimony	0.050	0.00050	mg/L	0.05000	0.00019	99	70-130			
Arsenic	0.050	0.00050	mg/L	0.05000	0.0044	92	70-130			
Barium	0.12	0.00050	mg/L	0.05000	0.070	95	70-130			
Beryllium	0.048	0.00025	mg/L	0.05000	ND	95	70-130			
Cadmium	0.049	0.00025	mg/L	0.05000	ND	97	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	ND	101	70-130			
Copper	0.051	0.00050	mg/L	0.05000	0.0088	84	70-130			
Lead	0.050	0.00050	mg/L	0.05000	0.00053	99	70-130			
Nickel	0.051	0.00050	mg/L	0.05000	0.0059	91	70-130			
Selenium	0.045	0.0015	mg/L	0.05000	0.00085	88	70-130			
Thallium	0.049	0.00050	mg/L	0.05000	0.00011	97	70-130			
Matrix Spike (1910228-MS2)		**Source: 19J0320-02**		Prepared: 10/16/2019 Analyzed: 10/17/2019						
Antimony	0.051	0.00050	mg/L	0.05000	0.00021	102	70-130			
Arsenic	0.057	0.00050	mg/L	0.05000	0.0045	106	70-130			
Barium	0.12	0.00050	mg/L	0.05000	0.071	93	70-130			
Beryllium	0.051	0.00025	mg/L	0.05000	0.000039	102	70-130			
Cadmium	0.051	0.00025	mg/L	0.05000	ND	102	70-130			
Chromium	0.045	0.00050	mg/L	0.05000	0.000050	90	70-130			
Copper	0.053	0.00050	mg/L	0.05000	0.0045	96	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.00011	103	70-130			
Nickel	0.047	0.00050	mg/L	0.05000	0.0051	83	70-130			
Selenium	0.051	0.0015	mg/L	0.05000	0.00074	101	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.00012	100	70-130			
Batch 1910245 - E245.1										
Blank (1910245-BLK1)				Prepared & Analyzed: 10/17/2019						
Mercury	ND	0.0010	mg/L							
LCS (1910245-BS1)				Prepared & Analyzed: 10/17/2019						
Mercury	0.0050	0.0010	mg/L	0.005000		101	85-115			
LCS Dup (1910245-BSD1)				Prepared & Analyzed: 10/17/2019						
Mercury	0.0048	0.0010	mg/L	0.005000		95	85-115	6	20	
Matrix Spike (1910245-MS1)		**Source: 19J0219-01**		Prepared & Analyzed: 10/17/2019						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	70-130			
Matrix Spike (1910245-MS2)		**Source: 19J0347-01**		Prepared & Analyzed: 10/17/2019						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	101	70-130			
Matrix Spike Dup (1910245-MSD1)		**Source: 19J0219-01**		Prepared & Analyzed: 10/17/2019						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	70-130	0.2	20	
Matrix Spike Dup (1910245-MSD2)		**Source: 19J0347-01**		Prepared & Analyzed: 10/17/2019						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	70-130	0.9	20	
Batch 1910266 - E 200.7 (4.4)										

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910266 - E 200.7 (4.4)										
Blank (1910266-BLK1)				Prepared & Analyzed: 10/19/2019						
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Manganese	ND	0.020	mg/L							
Zinc	ND	0.040	mg/L							
LCS (1910266-BS1)				Prepared & Analyzed: 10/19/2019						
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Iron	0.95	0.30	mg/L	1.000		95	85-115			
Magnesium	9.7	3.0	mg/L	10.00		97	85-115			
Manganese	0.51	0.020	mg/L	0.5000		101	85-115			
Zinc	0.48	0.040	mg/L	0.5000		96	85-115			
LCS Dup (1910266-BSD1)				Prepared & Analyzed: 10/19/2019						
Calcium	9.5	4.0	mg/L	10.00		95	85-115	0.8	20	
Iron	0.95	0.30	mg/L	1.000		95	85-115	0.02	20	
Magnesium	9.7	3.0	mg/L	10.00		97	85-115	0.01	20	
Manganese	0.50	0.020	mg/L	0.5000		100	85-115	1	20	
Zinc	0.46	0.040	mg/L	0.5000		92	85-115	4	20	
Matrix Spike (1910266-MS1)	**Source: 19J0374-01**			Prepared & Analyzed: 10/19/2019						
Calcium	460	4.0	mg/L	10.00	460	34	70-130			M3
Iron	1.8	0.30	mg/L	1.000	0.83	94	70-130			
Magnesium	200	3.0	mg/L	10.00	190	84	70-130			
Manganese	23	0.20	mg/L	0.5000	23	NR	70-130			M3
Zinc	4.9	0.040	mg/L	0.5000	4.6	52	70-130			M3
Batch 1910289 - E 245.1										
Blank (1910289-BLK1)				Prepared & Analyzed: 10/22/2019						
Mercury	0.000094	0.00050	mg/L							
LCS (1910289-BS1)				Prepared & Analyzed: 10/22/2019						
Mercury	0.0052	0.00050	mg/L	0.005000		105	85-115			
LCS Dup (1910289-BSD1)				Prepared & Analyzed: 10/22/2019						
Mercury	0.0052	0.00050	mg/L	0.005000		104	85-115	1	20	
Matrix Spike (1910289-MS1)	**Source: 19J0374-01**			Prepared & Analyzed: 10/22/2019						
Mercury	0.0050	0.00050	mg/L	0.005000	0.00010	99	70-130			
Matrix Spike (1910289-MS2)	**Source: 19J0381-01**			Prepared & Analyzed: 10/22/2019						
Mercury	0.0054	0.00050	mg/L	0.005000	0.00014	106	70-130			
Matrix Spike Dup (1910289-MSD1)	**Source: 19J0374-01**			Prepared & Analyzed: 10/22/2019						
Mercury	0.0053	0.00050	mg/L	0.005000	0.00010	104	70-130	5	20	
Matrix Spike Dup (1910289-MSD2)	**Source: 19J0381-01**			Prepared & Analyzed: 10/22/2019						
Mercury	0.0053	0.00050	mg/L	0.005000	0.00014	103	70-130	3	20	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910173 - SM2540 C										
Duplicate (1910173-DUP1)		**Source: 19J0347-01**		Prepared: 10/13/2019 Analyzed: 10/14/2019						
Total Dissolved Solids (Residue, Filterable)	250	20	mg/L		240			2	5	
Duplicate (1910173-DUP2)		**Source: 19J0362-01**		Prepared: 10/13/2019 Analyzed: 10/14/2019						
Total Dissolved Solids (Residue, Filterable)	520	20	mg/L		520			0.2	5	
Batch 1910198 - SM2320B										
Blank (1910198-BLK1)				Prepared & Analyzed: 10/14/2019						
Alkalinity, Bicarbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Carbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Hydroxide (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Total (As CaCO3)	ND	2.0	mg/L							
LCS (1910198-BS1)				Prepared & Analyzed: 10/14/2019						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		97	90-110			
LCS Dup (1910198-BSD1)				Prepared & Analyzed: 10/14/2019						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		98	90-110	2	10	
Matrix Spike (1910198-MS1)		**Source: 19J0377-01**		Prepared & Analyzed: 10/14/2019						
Alkalinity, Total (As CaCO3)	330	2.0	mg/L	250.0	98	94	70-130			
Matrix Spike Dup (1910198-MSD1)		**Source: 19J0377-01**		Prepared & Analyzed: 10/14/2019						
Alkalinity, Total (As CaCO3)	330	2.0	mg/L	250.0	98	93	70-130	0.6	10	
Batch 1910219 - SM4500-CN BE										
Blank (1910219-BLK1)				Prepared & Analyzed: 10/16/2019						
Cyanide	ND	0.10	mg/L							
LCS (1910219-BS1)				Prepared & Analyzed: 10/16/2019						
Cyanide	2.0	0.10	mg/L	2.000		100	85-115			
LCS Dup (1910219-BSD1)				Prepared & Analyzed: 10/16/2019						
Cyanide	2.1	0.10	mg/L	2.000		105	85-115	5	15	
Matrix Spike (1910219-MS1)		**Source: 19J0009-02**		Prepared & Analyzed: 10/16/2019						
Cyanide	2.0	0.10	mg/L	2.000	ND	102	80-120			
Matrix Spike Dup (1910219-MSD1)		**Source: 19J0009-02**		Prepared & Analyzed: 10/16/2019						
Cyanide	2.1	0.10	mg/L	2.000	ND	104	80-120	2	15	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910132 - E300.0 (2.1)										
Blank (1910132-BLK1)				Prepared & Analyzed: 10/10/2019						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (1910132-BS1)				Prepared & Analyzed: 10/10/2019						
Fluoride	2.2	0.50	mg/L	2.000		110	90-110			
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000		101	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		95	90-110			
Sulfate	12	5.0	mg/L	12.50		99	90-110			
LCS Dup (1910132-BSD1)				Prepared & Analyzed: 10/10/2019						
Fluoride	2.2	0.50	mg/L	2.000		110	90-110	0.3	10	
Nitrogen, Nitrate (As N)	5.0	0.50	mg/L	5.000		101	90-110	0.5	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		94	90-110	0.5	10	
Sulfate	12	5.0	mg/L	12.50		99	90-110	0.4	10	
Matrix Spike (1910132-MS1)	**Source: 19J0369-01**			Prepared & Analyzed: 10/10/2019						
Nitrogen, Nitrate (As N)	6.7	0.50	mg/L	5.000	1.5	104	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	94	80-120			
Sulfate	45	5.0	mg/L	12.50	34	91	80-120			
Matrix Spike (1910132-MS2)	**Source: 19J0374-01**			Prepared: 10/10/2019 Analyzed: 10/11/2019						
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000	ND	102	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120			
Matrix Spike (1910132-MS3)	**Source: 19J0377-02**			Prepared: 10/10/2019 Analyzed: 10/21/2019						
Fluoride	2.0	0.50	mg/L	2.000	ND	98	80-120			
Nitrogen, Nitrate (As N)	5.3	0.50	mg/L	5.000	ND	106	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	0.044	93	80-120			
Sulfate	14	5.0	mg/L	12.50	1.9	94	80-120			
Matrix Spike (1910132-MS4)	**Source: 19J0364-05**			Prepared: 10/10/2019 Analyzed: 10/12/2019						
Sulfate	8500	2500	mg/L	6250	5000	56	80-120			M2
Matrix Spike (1910132-MS5)	**Source: 19J0364-01**			Prepared: 10/10/2019 Analyzed: 10/12/2019						
Sulfate	2900	500	mg/L	1250	1800	94	80-120			
Matrix Spike (1910132-MS6)	**Source: 19J0369-01**			Prepared: 10/10/2019 Analyzed: 10/21/2019						
Fluoride	2.4	0.50	mg/L	2.000	0.34	103	80-120			
Nitrogen, Nitrate (As N)	6.3	0.50	mg/L	5.000	1.5	95	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	96	80-120			
Sulfate	44	5.0	mg/L	12.50	34	80	80-120			M2
Matrix Spike (1910132-MS7)	**Source: 19J0377-01**			Prepared: 10/10/2019 Analyzed: 10/21/2019						
Fluoride	2.2	0.50	mg/L	2.000	0.48	88	80-120			
Matrix Spike Dup (1910132-MSD1)	**Source: 19J0369-01**			Prepared: 10/10/2019 Analyzed: 10/11/2019						
Nitrogen, Nitrate (As N)	6.7	0.50	mg/L	5.000	1.5	104	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120	0.4	10	
Sulfate	45	5.0	mg/L	12.50	34	91	80-120	0.1	10	

Client: Arizona Minerals Inc.
Project: Ground Water
Work Order: 19J0374
Date Received: 10/10/2019

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 1910132 - E300.0 (2.1)										
Matrix Spike Dup (1910132-MSD2)	**Source: 19J0374-01**			Prepared: 10/10/2019 Analyzed: 10/11/2019						
Nitrogen, Nitrate (As N)	5.2	0.50	mg/L	5.000	ND	105	80-120	3	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	96	80-120	0.9	10	
Matrix Spike Dup (1910132-MSD3)	**Source: 19J0377-02**			Prepared: 10/10/2019 Analyzed: 10/21/2019						
Fluoride	1.9	0.50	mg/L	2.000	ND	97	80-120	1	10	
Nitrogen, Nitrate (As N)	5.3	0.50	mg/L	5.000	ND	106	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	0.044	93	80-120	0.4	10	
Sulfate	14	5.0	mg/L	12.50	1.9	94	80-120	0.2	10	
Matrix Spike Dup (1910132-MSD4)	**Source: 19J0364-05**			Prepared: 10/10/2019 Analyzed: 10/12/2019						
Sulfate	8500	2500	mg/L	6250	5000	56	80-120	0.1	10	M2
Matrix Spike Dup (1910132-MSD5)	**Source: 19J0364-01**			Prepared: 10/10/2019 Analyzed: 10/12/2019						
Sulfate	2900	500	mg/L	1250	1800	94	80-120	0.2	10	
Matrix Spike Dup (1910132-MSD6)	**Source: 19J0369-01**			Prepared: 10/10/2019 Analyzed: 10/21/2019						
Fluoride	2.2	0.50	mg/L	2.000	0.34	95	80-120	7	10	
Nitrogen, Nitrate (As N)	6.3	0.50	mg/L	5.000	1.5	95	80-120	0.4	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	96	80-120	0.08	10	
Sulfate	44	5.0	mg/L	12.50	34	78	80-120	0.5	10	M2
Matrix Spike Dup (1910132-MSD7)	**Source: 19J0377-01**			Prepared: 10/10/2019 Analyzed: 10/21/2019						
Fluoride	2.3	0.50	mg/L	2.000	0.48	91	80-120	2	10	

TURNER LABORATORIES INC.

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 19J0374 DATE 10/10 PAGE 1 OF 1

PROJECT NAME ____________ # ____________

CONTACT NAME Sarah Richman, Sheena Leon

COMPANY NAME South 32

ADDRESS 2210 East Fort Lowell Road

CITY Tucson STATE AZ ZIP CODE 85719

PHONE ____________ FAX ____________

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	MPLE MATI	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX See Attached
PCX#12-101019-1013	10/10/19	10:13		GW	5	↓

1. RELINQUISHED BY:
Signature
Luis Loyanos
Printed Name
South 32
Firm
10/10/19 10:58
Date/Time

2. RECEIVED BY:
Signature
Jessica Wright
Printed Name
WWC
Firm
10/10/19 10:58
Date/Time

3. RELINQUISHED BY:
Signature
Jessica Wright
Printed Name
WWC
Firm
10-10-19 1:54p
Date/Time

4. RECEIVED BY:
Signature
Cooper Black
Printed Name
TURNER LABORATORIES, INC.
Firm
10/10 1354
Date/Time

TURNAROUND REQUIREMENTS:
______Standard (approx.10 days)*
____Next day ____2 Day
_____5 Day*
______ Email Preliminary Results To:

REPORT REQUIREMENTS:
_____ I. Routine Report
_____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
_____ III. Date Validation Report (includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account _____ Y _____ N
P.O. # ____________
Bill to: ____________

SAMPLE RECEIPT:
Total Containers 5
Temperature 5.2
☑ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☑
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☑	Appropriate Head Space ☑
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☑	Received Within Hold Time ☑

POC-2 Semi-Annual Suite

	LABORATORY		
Analyte	**Total**	**Dissolved**	**Other**
Metals			
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Cadmium	X	X	
Chromium	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Major Anions			
Total Alkalinity	X		
Acidity	X		
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Nitrate-Nitrite as N 1	X	X	
Sulfate	X	X	
Parameters			
Total Dissolved Solids		X	
pH			X
Specific Conductivity			X
RadChem			
Gross Alpha Particle Activity	X	X	
Radium 226 + 228	X	X	
Cyanide			
Free CN	X	X	Free

FIELD MEASUREMENTS
pH
Specific conductance

Temperature	
Depth to water	

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: October 10, 2019
Sample Received: October 15, 2019
Analysis Completed: October 28, 2019

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
19J0374-01	< 2.0	< 0.4	< 0.7	< 0.7

Date of Analysis	10/23/2019	10/18/2019	10/18/2019	10/18/2019

10/28/2019
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ______ PWS Name: ______

Sample Date: October 10, 2019

Sample Time: 10:13 (24 hour clock)

Owner/Contact Person: ______

Owner/Contact Fax Number: ______

Owner/Contact Phone Number: ______

Sample Collection Point

☐ EPDS # ______

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ______

Date Q2 collected: ______

Date Q3 collected: ______

Date Q4 collected: ______

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	10/23/2019	< 2.0	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	10/18/2019	< 0.7	
GammaRay HPGE		1 pCi/L	Radium 226	4020	10/18/2019	< 0.4	
GammaRay HPGE		1 pCi/L	Radium 228	4030	10/18/2019	< 0.7	

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE63030

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 19J0374-01

Authorized Signature:

Date Public Water System Notified: ______

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

19J0374

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Turner Laboratories, Inc.	Radiation Safety Engineering, Inc.
2445 N. Coyote Drive, Ste #104	3245 N. Washington St.
Tucson, AZ 85745	Chandler, AZ 85225-1121
Phone: 520.882.5880	Phone :(480) 897-9459
Fax: 520.882.9788	Fax: (480) 892-5446
Project Manager: Elizabeth Kasik	Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	**Expires**	**Laboratory ID**	**Comments**
Sample ID: 19J0374-01 Drinking Water Sampled:10/10/2019 10:13 [redacted]			
Radiochemistry, Radium 226/228	11/09/2019 10:13		
Radiochemistry, Gross Alpha	04/07/2020 10:13		63030
Containers Supplied:			

CB Cooper	10/14 1600	UPS	10/14 1600
Released By	Date	Received By	Date
		Pat Flannery	10/15/19
Released By	Date	Received By	Date

TURNER
LABORATORIES INC.

July 24, 2020

Sarah Richman
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (805) 617-9300
FAX

Work Order No.: 20F0174

RE: AMI Non Discharge WTP

Dear Sarah Richman,

Turner Laboratories, Inc. received 1 sample(s) on 06/03/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Date Received: 06/03/2020

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20F0174-01	POC-2-06022020	Non-Potable Water	06/02/2020 0951

Client:	Arizona Minerals Inc.
Project:	AMI Non Discharge WTP
Work Order:	20F0174
Date Received:	06/03/2020

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

This report has been revised to report Thallium to the MDL.

E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
H2	Initial analysis was performed within holding time. Reanalysis for the required dilution was past holding time.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
L1	The associated LCS/LCSD recovery was above laboratory acceptance limits.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
M1	Matrix spike recovery was high; the associated LCS/LCSD was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
R1	RPD/RSD exceeded the method acceptance limit. See case narrative.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC-2-06022020
Project:	AMI Non Discharge WTP	**Collection Date/Time:**	06/02/2020 0951
Work Order:	20F0174	**Matrix:**	Non-Potable Water
Lab Sample ID:	20F0174-01		

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1800				mg/L	1	06/05/2020 0830	06/09/2020 1110	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	06/03/2020 1430	06/11/2020 2100	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Iron	0.83		0.30		mg/L	1	06/04/2020 0900	06/08/2020 1351	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Antimony	0.00051	0.00039	0.0050	E4	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Arsenic	0.0062		0.0050		mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Barium	0.021		0.0050		mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Beryllium	0.00056	0.00013	0.0025	E4	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Cadmium	0.0076		0.0025		mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Chromium	0.0043	0.00023	0.0050	E4	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Copper	ND	0.0015	0.0050	E8	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Lead	0.00091	0.00057	0.0050	E4	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Manganese	21		0.025	M3	mg/L	100	06/04/2020 0900	06/05/2020 1156	MH
Nickel	0.059		0.0050		mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Selenium	0.0040	0.0025	0.025	E4	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Thallium	0.00058	0.00023	0.0050	E4	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
Zinc	3.7	0.023	0.40	E4	mg/L	10	06/04/2020 0900	06/05/2020 1113	MH
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.0000041	0.00050	E8, L5	mg/L	1	06/09/2020 1130	06/09/2020 1514	MH
ICP Total Metals-E200.7 (4.4)									
Calcium	430		4.0	M3	mg/L	1	06/05/2020 0830	06/09/2020 1110	MH
Iron	1.1		0.30		mg/L	1	06/05/2020 0830	06/09/2020 1110	MH
Magnesium	180		3.0	M3	mg/L	1	06/05/2020 0830	06/09/2020 1110	MH
ICP/MS Total Metals-E200.8 (5.4)									

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Lab Sample ID: 20F0174-01

Client Sample ID: POC-2-06022020
Collection Date/Time: 06/02/2020 0951
Matrix: Non-Potable Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Antimony	0.00041	0.000039	0.00050	E4	mg/L	1	06/05/2020 0845	06/08/2020 1358	CR
Arsenic	0.0051		0.00050		mg/L	1	06/05/2020 0845	06/08/2020 1358	CR
Barium	0.017		0.0050		mg/L	10	06/05/2020 0845	06/08/2020 1342	CR
Beryllium	0.00080	0.00013	0.0025	E4	mg/L	10	06/05/2020 0845	06/08/2020 1342	CR
Cadmium	0.0085		0.0025		mg/L	10	06/05/2020 0845	06/08/2020 1342	CR
Chromium	0.00072		0.00050		mg/L	1	06/05/2020 0845	06/08/2020 1358	CR
Copper	0.00036	0.00015	0.00050	E4	mg/L	1	06/05/2020 0845	06/08/2020 1358	CR
Lead	0.0051		0.0050		mg/L	10	06/05/2020 0845	06/08/2020 1342	CR
Manganese	20		0.025		mg/L	100	06/05/2020 0845	06/08/2020 1210	CR
Nickel	0.060		0.0050		mg/L	10	06/05/2020 0845	06/09/2020 1301	CR
Selenium	0.00049	0.00025	0.0015	E4	mg/L	1	06/05/2020 0845	06/08/2020 1358	CR
Thallium	0.00011	0.000023	0.00050	E4	mg/L	1	06/05/2020 0845	06/08/2020 1358	CR
Zinc	4.0		0.40		mg/L	10	06/05/2020 0845	06/08/2020 1342	CR
CVAA Total Mercury-E245.1									
Mercury	ND	0.000041	0.00050	E8	mg/L	1	06/04/2020 0925	06/04/2020 1429	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Fluoride	0.75		0.50		mg/L	1	06/03/2020 1430	06/03/2020 1746	EJ
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	06/03/2020 1430	06/03/2020 1746	EJ
Nitrogen, Nitrite (As N)	ND		0.10	H2	mg/L	1	06/03/2020 1430	06/11/2020 2100	JG
Sulfate	1900		500		mg/L	100	06/03/2020 1430	06/11/2020 2117	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	170		2.0		mg/L	1	06/05/2020 0900	06/05/2020 1526	CWB
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	06/05/2020 0900	06/05/2020 1526	CWB
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	06/05/2020 0900	06/05/2020 1526	CWB
Alkalinity, Total (As CaCO3)	170		2.0		mg/L	1	06/05/2020 0900	06/05/2020 1526	CWB
Specific Conductance-SM2510 B									
Conductivity	4000		0.50		µmhos/cm	5	06/04/2020 1115	06/04/2020 1130	CW
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	2900		20		mg/L	1	06/04/2020 1700	06/09/2020 0840	CWB

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Lab Sample ID: 20F0174-01

Client Sample ID: POC-2-06022020
Collection Date/Time: 06/02/2020 0951
Matrix: Non-Potable Water

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Cyanide-SM4500-CN BE									
Cyanide	ND		0.10		mg/L	1	06/15/2020 0830	06/16/2020 1650	JG
pH-SM4500-H+ B									
pH (pH Units)	6.6			H5	-	1	06/04/2020 1030	06/04/2020 1038	CW
Temperature (°C)	23			H5	-	1	06/04/2020 1030	06/04/2020 1038	CW

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Date Received: 06/03/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2006005 - E 200.7 (4.4)										
Blank (2006005-BLK1)				Prepared & Analyzed: 06/08/2020						
Iron	ND	0.30	mg/L							
LCS (2006005-BS1)				Prepared & Analyzed: 06/08/2020						
Iron	0.99	0.30	mg/L	1.000		99	85-115			
LCS Dup (2006005-BSD1)				Prepared & Analyzed: 06/08/2020						
Iron	0.95	0.30	mg/L	1.000		95	85-115	4	20	
Matrix Spike (2006005-MS1)	**Source: 20E0596-01**			Prepared & Analyzed: 06/08/2020						
Iron	0.96	0.30	mg/L	1.000	0.014	94	70-130			
Batch 2006050 - E 200.8 (5.4)										
Blank (2006050-BLK1)				Prepared & Analyzed: 06/05/2020						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Nickel	0.000030	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Thallium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2006050-BS1)				Prepared & Analyzed: 06/05/2020						
Antimony	0.051	0.00050	mg/L	0.05000		102	85-115			
Arsenic	0.051	0.00050	mg/L	0.05000		103	85-115			
Barium	0.051	0.00050	mg/L	0.05000		102	85-115			
Beryllium	0.052	0.00025	mg/L	0.05000		104	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.051	0.00050	mg/L	0.05000		103	85-115			
Copper	0.051	0.00050	mg/L	0.05000		103	85-115			
Lead	0.052	0.00050	mg/L	0.05000		104	85-115			
Manganese	0.053	0.00025	mg/L	0.05000		106	85-115			
Nickel	0.052	0.00050	mg/L	0.05000		104	85-115			
Selenium	0.051	0.0025	mg/L	0.05000		102	85-115			
Thallium	0.054	0.00050	mg/L	0.05000		108	85-115			
Zinc	0.11	0.040	mg/L	0.1000		108	85-115			

Turner Laboratories, Inc.

Date: 07/24/2020

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Date Received: 06/03/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2006050 - E 200.8 (5.4)										
LCS Dup (2006050-BSD1)				Prepared & Analyzed: 06/05/2020						
Antimony	0.051	0.00050	mg/L	0.05000		102	85-115	0.2	20	
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115	0.6	20	
Barium	0.051	0.00050	mg/L	0.05000		101	85-115	0.6	20	
Beryllium	0.054	0.00025	mg/L	0.05000		108	85-115	4	20	
Cadmium	0.049	0.00025	mg/L	0.05000		97	85-115	2	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	1	20	
Copper	0.051	0.00050	mg/L	0.05000		102	85-115	1	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	5	20	
Manganese	0.053	0.00025	mg/L	0.05000		106	85-115	0.1	20	
Nickel	0.054	0.00050	mg/L	0.05000		107	85-115	3	20	
Selenium	0.050	0.0025	mg/L	0.05000		101	85-115	1	20	
Thallium	0.052	0.00050	mg/L	0.05000		105	85-115	3	20	
Zinc	0.11	0.040	mg/L	0.1000		110	85-115	2	20	
Matrix Spike (2006050-MS1)	**Source: 20F0174-01**			Prepared & Analyzed: 06/05/2020						
Antimony	0.049	0.0050	mg/L	0.05000	0.00051	97	70-130			
Arsenic	0.055	0.0050	mg/L	0.05000	0.0062	97	70-130			
Barium	0.064	0.0050	mg/L	0.05000	0.021	86	70-130			
Beryllium	0.050	0.0025	mg/L	0.05000	0.00056	99	70-130			
Cadmium	0.054	0.0025	mg/L	0.05000	0.0076	94	70-130			
Chromium	0.050	0.0050	mg/L	0.05000	0.0043	91	70-130			
Copper	0.043	0.0050	mg/L	0.05000	ND	86	70-130			
Lead	0.045	0.0050	mg/L	0.05000	0.00091	88	70-130			
Manganese	20	0.025	mg/L	0.05000	21	NR	70-130			
Nickel	0.11	0.0050	mg/L	0.05000	0.059	100	70-130			
Selenium	0.049	0.025	mg/L	0.05000	0.0040	90	70-130			
Thallium	0.047	0.0050	mg/L	0.05000	0.00058	94	70-130			
Zinc	3.8	0.40	mg/L	0.1000	3.7	76	70-130			
Batch 2006055 - E245.1										
Blank (2006055-BLK1)				Prepared & Analyzed: 06/04/2020						
Mercury	0.000058	0.00050	mg/L							
LCS (2006055-BS1)				Prepared & Analyzed: 06/04/2020						
Mercury	0.0053	0.00050	mg/L	0.005000		106	85-115			
LCS Dup (2006055-BSD1)				Prepared & Analyzed: 06/04/2020						
Mercury	0.0053	0.00050	mg/L	0.005000		105	85-115	0.1	20	
Matrix Spike (2006055-MS1)	**Source: 20E0554-01**			Prepared & Analyzed: 06/04/2020						
Mercury	0.0052	0.00050	mg/L	0.005000	0.000079	103	70-130			
Matrix Spike (2006055-MS2)	**Source: 20F0142-01**			Prepared & Analyzed: 06/04/2020						
Mercury	0.0052	0.00050	mg/L	0.005000	ND	104	70-130			
Matrix Spike Dup (2006055-MSD1)	**Source: 20E0554-01**			Prepared & Analyzed: 06/04/2020						
Mercury	0.0053	0.00050	mg/L	0.005000	0.000079	104	70-130	1	20	
Matrix Spike Dup (2006055-MSD2)	**Source: 20F0142-01**			Prepared & Analyzed: 06/04/2020						
Mercury	0.0056	0.00050	mg/L	0.005000	ND	111	70-130	7	20	

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Date Received: 06/03/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2006075 - E200.7 (4.4)										
Blank (2006075-BLK1)				Prepared: 06/05/2020 Analyzed: 06/09/2020						
Calcium	ND	4.0	mg/L							
Iron	0.0046	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
LCS (2006075-BS1)				Prepared: 06/05/2020 Analyzed: 06/09/2020						
Calcium	9.8	4.0	mg/L	10.00		98	85-115			
Iron	0.99	0.30	mg/L	1.000		99	85-115			
Magnesium	9.9	3.0	mg/L	10.00		99	85-115			
LCS Dup (2006075-BSD1)				Prepared: 06/05/2020 Analyzed: 06/09/2020						
Calcium	9.5	4.0	mg/L	10.00		95	85-115	4	20	
Iron	0.96	0.30	mg/L	1.000		96	85-115	2	20	
Magnesium	9.7	3.0	mg/L	10.00		97	85-115	2	20	
Matrix Spike (2006075-MS1)	**Source: 20F0174-01**			Prepared: 06/05/2020 Analyzed: 06/09/2020						
Calcium	430	4.0	mg/L	10.00	430	NR	70-130			M3
Iron	2.0	0.30	mg/L	1.000	1.1	89	70-130			
Magnesium	180	3.0	mg/L	10.00	180	28	70-130			M3
Batch 2006076 - E200.8 (5.4)										
Blank (2006076-BLK1)				Prepared: 06/05/2020 Analyzed: 06/08/2020						
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	0.00017	0.00050	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0015	mg/L							
Thallium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2006076-BS1)				Prepared: 06/05/2020 Analyzed: 06/08/2020						
Antimony	0.049	0.00050	mg/L	0.05000		99	85-115			
Arsenic	0.052	0.00050	mg/L	0.05000		104	85-115			
Barium	0.050	0.00050	mg/L	0.05000		101	85-115			
Beryllium	0.048	0.00025	mg/L	0.05000		95	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		100	85-115			
Chromium	0.051	0.00050	mg/L	0.05000		102	85-115			
Copper	0.051	0.00050	mg/L	0.05000		101	85-115			
Lead	0.051	0.00050	mg/L	0.05000		101	85-115			
Manganese	0.050	0.00025	mg/L	0.05000		101	85-115			
Nickel	0.054	0.00050	mg/L	0.05000		108	85-115			
Selenium	0.052	0.0015	mg/L	0.05000		104	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		99	85-115			
Zinc	0.11	0.040	mg/L	0.1000		107	85-115			

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Date Received: 06/03/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2006076 - E200.8 (5.4)										
LCS Dup (2006076-BSD1)				Prepared: 06/05/2020 Analyzed: 06/08/2020						
Antimony	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Arsenic	0.051	0.00050	mg/L	0.05000		102	85-115	2	20	
Barium	0.050	0.00050	mg/L	0.05000		99	85-115	1	20	
Beryllium	0.048	0.00025	mg/L	0.05000		96	85-115	1	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	1	20	
Chromium	0.052	0.00050	mg/L	0.05000		104	85-115	2	20	
Copper	0.050	0.00050	mg/L	0.05000		101	85-115	0.4	20	
Lead	0.050	0.00050	mg/L	0.05000		100	85-115	1	20	
Manganese	0.051	0.00025	mg/L	0.05000		102	85-115	1	20	
Nickel	0.054	0.00050	mg/L	0.05000		108	85-115	0.5	20	
Selenium	0.052	0.0015	mg/L	0.05000		105	85-115	0.6	20	
Thallium	0.050	0.00050	mg/L	0.05000		100	85-115	0.6	20	
Zinc	0.11	0.040	mg/L	0.1000		106	85-115	1	20	
Matrix Spike (2006076-MS1)		**Source: 20F0086-01**		Prepared: 06/05/2020 Analyzed: 06/08/2020						
Antimony	0.049	0.00050	mg/L	0.05000	0.000072	98	70-130			
Arsenic	0.052	0.00050	mg/L	0.05000	0.00033	104	70-130			
Barium	0.33	0.00050	mg/L	0.05000	0.28	92	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	ND	92	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	0.000053	101	70-130			
Chromium	0.050	0.00050	mg/L	0.05000	0.0010	98	70-130			
Copper	0.049	0.00050	mg/L	0.05000	0.0017	95	70-130			
Lead	0.052	0.00050	mg/L	0.05000	0.00047	102	70-130			
Manganese	0.050	0.00025	mg/L	0.05000	0.00030	100	70-130			
Nickel	0.046	0.00050	mg/L	0.05000	0.0042	84	70-130			
Selenium	0.053	0.0015	mg/L	0.05000	ND	106	70-130			
Thallium	0.051	0.00050	mg/L	0.05000	0.000098	101	70-130			
Zinc	0.12	0.040	mg/L	0.1000	0.015	108	70-130			
Batch 2006113 - E 245.1										
Blank (2006113-BLK1)				Prepared & Analyzed: 06/09/2020						
Mercury	ND	0.00050	mg/L							
LCS (2006113-BS1)				Prepared & Analyzed: 06/09/2020						
Mercury	0.043	0.00050	mg/L	0.005000		867	85-115			L1
LCS Dup (2006113-BSD1)				Prepared & Analyzed: 06/09/2020						
Mercury	0.0047	0.00050	mg/L	0.005000		94	85-115	161	20	R1
Matrix Spike (2006113-MS1)		**Source: 20E0578-02**		Prepared & Analyzed: 06/09/2020						
Mercury	0.0053	0.00050	mg/L	0.005000	0.00029	100	70-130			
Matrix Spike Dup (2006113-MSD1)		**Source: 20E0578-02**		Prepared & Analyzed: 06/09/2020						
Mercury	0.0053	0.00050	mg/L	0.005000	0.00029	101	70-130	0.4	20	

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Date Received: 06/03/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2006032 - SM2540 C										
Duplicate (2006032-DUP1)	**Source: 20F0163-01**			Prepared: 06/04/2020 Analyzed: 06/09/2020						
Total Dissolved Solids (Residue, Filterable)	3700	20	mg/L		3700			0.08	5	
Duplicate (2006032-DUP2)	**Source: 20F0115-01**			Prepared: 06/04/2020 Analyzed: 06/09/2020						
Total Dissolved Solids (Residue, Filterable)	28000	20	mg/L		27000			1	5	
Duplicate (2006032-DUP3)	**Source: 20F0011-01**			Prepared: 06/04/2020 Analyzed: 06/09/2020						
Total Dissolved Solids (Residue, Filterable)	1500	20	mg/L		1500			0.6	5	
Batch 2006063 - SM2510 B										
LCS (2006063-BS1)				Prepared & Analyzed: 06/04/2020						
Conductivity	140	0.10	µmhos/cm	141.2		99	0-200			
LCS Dup (2006063-BSD1)				Prepared & Analyzed: 06/04/2020						
Conductivity	140	0.10	µmhos/cm	141.2		99	0-200	0	200	
Duplicate (2006063-DUP1)	**Source: 20F0174-01**			Prepared & Analyzed: 06/04/2020						
Conductivity	3900	0.50	µmhos/cm		4000			1	10	
Batch 2006064 - SM4500-H+ B										
Duplicate (2006064-DUP1)	**Source: 20F0116-03**			Prepared & Analyzed: 06/04/2020						
pH (pH Units)	1.9		-		1.9			0.5	200	H5
Temperature (°C)	22		-		22			0	200	H5
Batch 2006083 - SM2320B										
Blank (2006083-BLK1)				Prepared & Analyzed: 06/05/2020						
Alkalinity, Bicarbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Carbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Hydroxide (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Total (As CaCO3)	ND	2.0	mg/L							
LCS (2006083-BS1)				Prepared & Analyzed: 06/05/2020						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		95	90-110			
LCS Dup (2006083-BSD1)				Prepared & Analyzed: 06/05/2020						
Alkalinity, Total (As CaCO3)	230	2.0	mg/L	250.0		94	90-110	2	10	
Matrix Spike (2006083-MS1)	**Source: 20F0174-01**			Prepared & Analyzed: 06/05/2020						
Alkalinity, Total (As CaCO3)	410	2.0	mg/L	250.0	170	94	70-130			
Matrix Spike Dup (2006083-MSD1)	**Source: 20F0174-01**			Prepared & Analyzed: 06/05/2020						
Alkalinity, Total (As CaCO3)	400	2.0	mg/L	250.0	170	92	70-130	1	10	
Batch 2006205 - SM4500-CN BE										
Blank (2006205-BLK1)				Prepared: 06/15/2020 Analyzed: 06/16/2020						
Cyanide	ND	0.10	mg/L							

Client: Arizona Minerals Inc.
Project: AMI Non Discharge WTP
Work Order: 20F0174
Date Received: 06/03/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2006205 - SM4500-CN BE										
LCS (2006205-BS1)				Prepared: 06/15/2020 Analyzed: 06/16/2020						
Cyanide	1.9	0.10	mg/L	2.000		94	85-115			
LCS Dup (2006205-BSD1)				Prepared: 06/15/2020 Analyzed: 06/16/2020						
Cyanide	2.0	0.10	mg/L	2.000		102	85-115	8	15	
Matrix Spike (2006205-MS1)	**Source: 20F0254-01**			Prepared: 06/15/2020 Analyzed: 06/16/2020						
Cyanide	2.1	0.10	mg/L	2.000	ND	103	80-120			
Matrix Spike Dup (2006205-MSD1)	**Source: 20F0254-01**			Prepared: 06/15/2020 Analyzed: 06/16/2020						
Cyanide	1.9	0.10	mg/L	2.000	ND	97	80-120	6	15	

Client:	Arizona Minerals Inc.
Project:	AMI Non Discharge WTP
Work Order:	20F0174
Date Received:	06/03/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2006052 - E300.0 (2.1)										
Blank (2006052-BLK1)				Prepared & Analyzed: 06/03/2020						
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (2006052-BS1)				Prepared & Analyzed: 06/03/2020						
Fluoride	2.0	0.50	mg/L	2.000		98	90-110			
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		96	90-110			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		98	90-110			
Sulfate	12	5.0	mg/L	12.50		99	90-110			
LCS Dup (2006052-BSD1)				Prepared & Analyzed: 06/03/2020						
Fluoride	1.9	0.50	mg/L	2.000		97	90-110	1	10	
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		96	90-110	0.4	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500		99	90-110	0.4	10	
Sulfate	12	5.0	mg/L	12.50		99	90-110	0.5	10	
Matrix Spike (2006052-MS1)	**Source: 20F0144-01**			Prepared: 06/03/2020 Analyzed: 06/06/2020						
Fluoride	1.8	0.50	mg/L	2.000	0.20	81	80-120			
Nitrogen, Nitrate (As N)	6.1	0.50	mg/L	5.000	1.2	97	80-120			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500	0.093	97	80-120			
Sulfate	20	5.0	mg/L	12.50	8.8	90	80-120			
Matrix Spike (2006052-MS2)	**Source: 20E0416-01**			Prepared: 06/03/2020 Analyzed: 06/30/2020						
Fluoride	13	2.5	mg/L	10.00	3.9	94	80-120			
Sulfate	160	25	mg/L	62.50	21	218	80-120			M1
Matrix Spike Dup (2006052-MSD1)	**Source: 20F0144-01**			Prepared: 06/03/2020 Analyzed: 06/06/2020						
Fluoride	1.8	0.50	mg/L	2.000	0.20	81	80-120	0.2	10	
Nitrogen, Nitrate (As N)	6.1	0.50	mg/L	5.000	1.2	97	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500	0.093	98	80-120	0.9	10	
Sulfate	20	5.0	mg/L	12.50	8.8	91	80-120	1	10	
Matrix Spike Dup (2006052-MSD2)	**Source: 20E0416-01**			Prepared: 06/03/2020 Analyzed: 06/30/2020						
Fluoride	13	2.5	mg/L	10.00	3.9	96	80-120	1	10	
Sulfate	160	25	mg/L	62.50	21	219	80-120	0.3	10	M1

TURNER LABORATORIES INC.

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20E0174 DATE 6-3-20 PAGE 1 OF 2

PROJECT NAME ______ # ______
CONTACT NAME Sheena Leon & Kara Haas
COMPANY NAME South32
ADDRESS 2210 E Ft Lowell Rd
CITY Tucson STATE AZ ZIP CODE 85719
PHONE ______ FAX ______
SAMPLER'S SIGNATURE ______

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	MPLE MAT	NUMBER OF CONTAINERS	See attached
POC-2-06022020	6-2-20	953 am		water	5	✓

1. RELINQUISHED BY:
Signature
Jaime Lopez
Printed Name
South 32
Firm
6-3-20 9:50am
Date/Time

2. RECEIVED BY:
Signature Steven M
Printed Name WWC
Firm 6-3-20
Date/Time 10:30

3. RELINQUISHED BY:
Signature Steven M.
Printed Name WWC
Firm 6-3-20
Date/Time 12:15

4. RECEIVED BY:
Signature Jodee Basurto
Printed Name
TURNER LABORATORIES, INC.
Firm 06/03/20
Date/Time 1215

TURNAROUND REQUIREMENTS:
____ Standard (approx.10 days)*
____ Next day ____ 2 Day
X 5 Day*
____ Email Preliminary Results To: Sheena Leon + Kara Haas

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ______
Bill to: ______

SAMPLE RECEIPT:
Total Containers 5
Temperature 3.0
☑ Wet Ice ☐ Blue Ice

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No
ADEQ Forms: ☐ Yes ☐ No
Mail ADEQ Forms: ☐ Yes ☐ No
Custody Seals ☐
Container Intact ☑
COC/Labels Agree ☑
Preservation Confirmation ☒
Appropriate Head Space ☐
Received Within Hold Time ☒

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL

POC-2 Semi-Annual Suite

LABORATORY			
Analyte	**Total**	**Dissolved**	**Other**
Metals			
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Cadmium	X	X	
Chromium	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Major Anions			
Total Alkalinity	X		
Acidity	X		
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Nitrate-Nitrite as N 1	X	X	
Sulfate	X	X	
Parameters			
Total Dissolved Solids		X	
pH			X
Specific Conductivity			X
RadChem			
Gross Alpha Particle Activity	X	X	
Radium 226 + 228	X	X	
Cyanide			
Free CN	X	X	Free

FIELD MEASUREMENTS
pH
Specific conductance

Radiation Safety Engineering, Inc.
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: June 02, 2020
Sample Received: June 05, 2020
Analysis Completed: June 21, 2020

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
20F0174-01	< 2.6	< 0.4	< 0.8	< 0.8

Date of Analysis	6/16/2020	6/5/2020	6/5/2020	6/5/2020

Robert L. Metzger, Ph.D., C.H.P.
Laboratory License Number AZ0462

6/21/2020
Date

SUBCONTRACT ORDER

Turner Laboratories, Inc.

20F0174

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Turner Laboratories, Inc.	Radiation Safety Engineering, Inc.
2445 N. Coyote Drive, Ste #104	3245 N. Washington St.
Tucson, AZ 85745	Chandler, AZ 85225-1121
Phone: 520.882.5880	Phone :(480) 897-9459
Fax: 520.882.9788	Fax: (480) 892-5446
Project Manager: Elizabeth Kasik	Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	**Expires**	**Laboratory ID**	**Comments**
Sample ID: 20F0174-01 Non-Potable Wa Sampled:06/02/2020 09:51		[redacted]	
Radiochemistry, Radium 226/228	07/02/2020 09:51		
Radiochemistry, Gross Alpha	11/29/2020 09:51		
Containers Supplied:			64490

	06/04/20 1600	UPS	06/04/20 1600
Released By	Date	Received By	Date
			6-5-2020 RSE
Released By	Date	Received By	Date

TURNER
LABORATORIES INC.

June 28, 2021

Sheena Leon
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 21F0453
Order Name: Groundwater

RE: Groundwater

Dear Sheena Leon,

Turner Laboratories, Inc. received 1 sample(s) on 06/15/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21F0453
Date Received: 06/15/2021

Order: Groundwater

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21F0453-01	MW3-06142021	Ground Water	06/14/2021 1403

Client:	Arizona Minerals Inc.
Project:	Groundwater
Work Order:	21F0453
Date Received:	06/15/2021

Case Narrative

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

TURNER LABORATORIES INC.

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 21F0453 DATE 6/15/21 PAGE 1 OF 1

PROJECT NAME ____ # ____

CONTACT NAME Sheena Leon & Kara Haas

COMPANY NAME South32

ADDRESS 2210 E Ft Lowell Rd

CITY Tucson STATE AZ ZIP CODE 85719

PHONE ____ FAX ____

SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	APLE MAT	NUMBER OF CONTAINERS	Radchem
MW3-06142021	6.14.21	2:03pm		GW	1	↓

1. RELINQUISHED BY:
Signature
Printed Name Jaime L.
Firm South 32
Date/Time 6.15.21 8:00am

2. RECEIVED BY:
Signature
Printed Name Colleen Bragg
Firm 12:00
Date/Time 6/15/21

3. RELINQUISHED BY:
Signature Colleen Bragg
Printed Name
Firm
Date/Time 6/15/21 13:27

4. RECEIVED BY:
Signature Leonard Mudy
Printed Name
TURNER LABORATORIES, INC.
Firm
6/15/21 1327
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx.10 days)*
____ Next day ____ 2 Day
____ 5 Day*
✓ Email Preliminary Results
To: Sheena Leon
Kara Haas

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 1
Temperature 2.8
☐ Wet Ice ☐ Blue Ice

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☑
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☑	Appropriate Head Space ☑
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☑	Received Within Hold Time ☑

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: June 14, 2021
Sample Received: June 18, 2021
Analysis Completed: June 28, 2021

Sample ID	Gross Alpha Activity Method EPA 900 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
21F0453-01	< 8.4	< 0.5	< 0.7	< 0.7

Date of Analysis	6/22/2021	6/18/2021	6/18/2021	6/18/2021

6/28/2021

Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ____________

PWS Name: ____________

Sample Date: June 14, 2021

Sample Time: 14:03 (24 hour clock)

Owner/Contact Person: ____________

Owner/Contact Fax Number: ____________

Owner/Contact Phone Number: ____________

Sample Collection Point

☐ EPDS # ____________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ____________

Date Q2 collected: ____________

Date Q3 collected: ____________

Date Q4 collected: ____________

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result		Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		3 pCi/L	Gross Alpha	4002	6/22/2021	< 8.4		
7500 - Rn			Radon	4004				
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006			µg/L	
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	6/18/2021	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	6/18/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	6/18/2021	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66822

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 21F0453-01

Authorized Signature: ____________

Date Public Water System Notified: ____________

DWAR 6: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

21F0453

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Turner Laboratories, Inc.	Radiation Safety Engineering, Inc.
2445 N. Coyote Drive, Ste #104	3245 N. Washington St.
Tucson, AZ 85745	Chandler, AZ 85225-1121
Phone: 520.882.5880	Phone :(480) 897-9459
Fax: 520.882.9788	Fax: (480) 892-5446
Project Manager: Elizabeth Kasik	Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	**Expires**	**Laboratory ID**	**Comments**
Sample ID: 21F0453-01 Drinking Water Sampled:06/14/2021 14:03 [redacted]			
Radiochemistry, Radium 226/228	07/14/2021 14:03	66822	
Radiochemistry, Gross Alpha	12/11/2021 14:03		
Containers Supplied:			

Released By	Date	Received By	Date
	6/17/21 1600	UPS	6/17/21 1600
		A.H.	6/18/21 10:10

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

July 12, 2021

Report to:	Bill to:
Kara Hass	Accounts Payable
South32	South32
2210 E Ft. Lowell Rd.	2210 E Fort Lowell Road
Tucson, AZ 85719	Tucson, AZ 85719

cc: Sheena Leon

Project ID:
ACZ Project ID: L66538

Kara Hass:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 16, 2021. This project has been assigned to ACZ's project number, L66538. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L66538. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after July 02, 2023. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

S. Habermehl

Scott Habermehl has reviewed
and approved this report.

Case Narrative

Arizona Minerals Inc.

July 12, 2021

Project ID:
ACZ Project ID: L66538

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 groundwater sample from Arizona Minerals Inc. on June 16, 2021. The sample was received in good condition. Upon receipt, the sample custodian removed the sample from the cooler, inspected the contents, and logged the sample into ACZ's computerized Laboratory Information Management System (LIMS). The sample was assigned ACZ LIMS project number L66538. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

This sample was analyzed for inorganic, radiochemistry parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. (N1) L66538-01/TOTAL DISSOLVED SOLIDS

Oven range is 80 C to 91 C. Over the weekend, the oven had a minor high hit out of range for the temperature. When the oven temperature was checked on Monday 6/21/21, the max temp read at 96.4'C . The WG was removed from the oven on 6/21/21 when the oven was back in range. The WG was examined and there was no splattering of samples.

Inorganic Analytical Results

Arizona Minerals Inc.
Project ID:
Sample ID: MW3-06142021

ACZ Sample ID: ***L66538-01***
Date Sampled: *06/14/21 14:03*
Date Received: *06/16/21*
Sample Matrix: *Groundwater*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								06/27/21 14:09	kja
Total Hot Plate Digestion	M200.2 ICP-MS								06/28/21 16:20	mfm
Total Hot Plate Digestion	M200.2 ICP								06/27/21 15:03	kja

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, dissolved	M200.8 ICP-MS	2	<0.0008	U		mg/L	0.0008	0.004	07/01/21 12:33	bsu
Antimony, total	M200.8 ICP-MS	2	<0.0008	U		mg/L	0.0008	0.004	06/30/21 12:03	mfm
Arsenic, dissolved	M200.8 ICP-MS	2	0.00228			mg/L	0.0004	0.002	07/01/21 12:33	bsu
Arsenic, total	M200.8 ICP-MS	2	0.00654			mg/L	0.0004	0.002	06/30/21 12:03	mfm
Barium, dissolved	M200.7 ICP	2	0.0156	B		mg/L	0.014	0.07	06/30/21 16:26	kja
Barium, total	M200.7 ICP	2	0.0256	B		mg/L	0.014	0.07	06/29/21 2:29	kja
Beryllium, dissolved	M200.8 ICP-MS	2	0.000298	B		mg/L	0.00016	0.0005	07/08/21 18:26	bsu
Beryllium, total	M200.8 ICP-MS	2	0.000455	B		mg/L	0.00016	0.0005	06/30/21 12:03	mfm
Cadmium, dissolved	M200.8 ICP-MS	2	0.00500			mg/L	0.0001	0.0005	07/01/21 12:33	bsu
Cadmium, total	M200.8 ICP-MS	2	0.00654			mg/L	0.0001	0.0005	06/30/21 12:03	mfm
Calcium, dissolved	M200.7 ICP	2	467			mg/L	0.2	1	06/30/21 16:26	kja
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	06/30/21 16:26	kja
Chromium, total	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	06/29/21 2:29	kja
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	06/30/21 16:26	kja
Copper, total	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	06/29/21 2:29	kja
Iron, dissolved	M200.7 ICP	2	<0.12	U		mg/L	0.12	0.3	06/30/21 16:26	kja
Iron, total	M200.7 ICP	2	2.18			mg/L	0.12	0.3	06/29/21 2:29	kja
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	07/01/21 12:33	bsu
Lead, total	M200.8 ICP-MS	2	0.00989			mg/L	0.0002	0.001	06/30/21 12:03	mfm
Magnesium, dissolved	M200.7 ICP	2	193			mg/L	0.4	2	06/30/21 16:26	kja
Manganese, dissolved	M200.7 ICP	2	19.6			mg/L	0.02	0.1	06/30/21 16:26	kja
Manganese, total	M200.7 ICP	2	21.4			mg/L	0.02	0.1	06/29/21 2:29	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	06/30/21 12:31	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	06/23/21 13:30	mlh
Nickel, dissolved	M200.7 ICP	2	0.0384	B		mg/L	0.016	0.08	06/30/21 16:26	kja
Nickel, total	M200.7 ICP	2	0.0406	B		mg/L	0.016	0.08	06/29/21 2:29	kja
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.0005	07/01/21 12:33	bsu
Selenium, total	M200.8 ICP-MS	2	0.00022	B		mg/L	0.0002	0.0005	06/30/21 12:03	mfm
Thallium, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	07/01/21 12:33	bsu
Thallium, total	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	06/30/21 12:03	mfm
Zinc, dissolved	M200.7 ICP	2	3.78			mg/L	0.04	0.1	06/30/21 16:26	kja
Zinc, total	M200.8 ICP-MS	2	3.59			mg/L	0.012	0.03	06/30/21 12:03	mfm

** Please refer to Qualifier Reports for details.*

Inorganic Analytical Results

Arizona Minerals Inc.
Project ID:
Sample ID: MW3-06142021

ACZ Sample ID: ***L66538-01***
Date Sampled: *06/14/21 14:03*
Date Received: *06/16/21*
Sample Matrix: *Groundwater*

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acidity as CaCO3	SM2310B - Titration	1	<2	U	*	mg/L	2	20	06/18/21 14:47	eep
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	169			mg/L	2	20	06/18/21 0:00	eep
Carbonate as CaCO3		1	<2	U		mg/L	2	20	06/18/21 0:00	eep
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	06/18/21 0:00	eep
Total Alkalinity		1	169		*	mg/L	2	20	06/18/21 0:00	eep
Conductivity @25C	SM2510B	1	2970			umhos/cm	1	10	06/18/21 6:49	eep
Cyanide, Free	D6888-09/OIA-1677-09	1	<0.003	U	*	mg/L	0.003	0.01	06/17/21 12:04	md
Fluoride	SM4500F-C	1	0.95			mg/L	0.15	0.35	06/30/21 16:03	eep
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		1960			mg/L	0.5	10	07/12/21 0:00	calc
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		<0.02	UH		mg/L	0.02	0.1	07/12/21 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	06/19/21 21:57	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	06/19/21 23:18	pjb
pH (lab)	SM4500H+ B									
pH		1	7.8	H		units	0.1	0.1	06/18/21 0:00	eep
pH measured at		1	19.6			C	0.1	0.1	06/18/21 0:00	eep
Residue, Filterable (TDS) @180C	SM2540C	1	3010		*	mg/L	20	40	06/18/21 12:29	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	100	2020		*	mg/L	100	500	07/08/21 14:27	wtc

Arizona license number: AZ0102

** Please refer to Qualifier Reports for details.*

Inorganic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

Arizona Minerals Inc.

ACZ Project ID: ***L66538***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Acidity as CaCO3 SM2310B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521397													
WG521397PBW1	PBW	06/18/21 14:15				8	mg/L		-20	20			
WG521397LCSW1	LCSW	06/18/21 14:16	PCN63304	1005		978	mg/L	97	90	110			
WG521397PBW2	PBW	06/18/21 14:39				6	mg/L		-20	20			
WG521397LCSW2	LCSW	06/18/21 14:40	PCN63304	1005		955	mg/L	95	90	110			
L66500-01DUP	DUP	06/18/21 14:42			17	18	mg/L				6	20	RA

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521319													
WG521319PBW1	PBW	06/17/21 19:41				U	mg/L		-20	20			
WG521319LCSW3	LCSW	06/17/21 19:59	WC210604-7	820.0001		780	mg/L	95	90	110			
WG521319LCSW6	LCSW	06/17/21 23:13	WC210604-7	820.0001		781.7	mg/L	95	90	110			
WG521319PBW2	PBW	06/17/21 23:21				U	mg/L		-20	20			
WG521319LCSW9	LCSW	06/18/21 2:24	WC210604-7	820.0001		816.9	mg/L	100	90	110			
WG521319PBW3	PBW	06/18/21 2:31				U	mg/L		-20	20			
WG521319LCSW12	LCSW	06/18/21 5:34	WC210604-7	820.0001		802.9	mg/L	98	90	110			
WG521319PBW4	PBW	06/18/21 5:40				U	mg/L		-20	20			
L66546-03DUP	DUP	06/18/21 7:14			15.7	15.6	mg/L				1	20	RA
WG521319LCSW15	LCSW	06/18/21 8:58	WC210604-7	820.0001		793.7	mg/L	97	90	110			

Antimony, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522333													
WG522333ICV	ICV	07/01/21 12:19	MS210630-2	.0201		.02038	mg/L	101	90	110			
WG522333ICB	ICB	07/01/21 12:20				U	mg/L		-0.00088	0.00088			
WG522333LFB	LFB	07/01/21 12:22	MS210610-2	.01		.00948	mg/L	95	85	115			
L66600-01AS	AS	07/01/21 12:40	MS210610-2	1	U	.9285	mg/L	93	70	130			
L66600-01ASD	ASD	07/01/21 12:42	MS210610-2	1	U	.94527	mg/L	95	70	130	2	20	

Antimony, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.0201		.01858	mg/L	92	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.0012	0.0012			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.00088	0.00088			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.01		.00911	mg/L	91	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.01	U	.00827	mg/L	83	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.01	U	.0082	mg/L	82	70	130	1	20	

Arsenic, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522333													
WG522333ICV	ICV	07/01/21 12:19	MS210630-2	.05		.05176	mg/L	104	90	110			
WG522333ICB	ICB	07/01/21 12:20				U	mg/L		-0.00044	0.00044			
WG522333LFB	LFB	07/01/21 12:22	MS210610-2	.05005		.04874	mg/L	97	85	115			
L66600-01AS	AS	07/01/21 12:40	MS210610-2	5.005	U	4.85261	mg/L	97	70	130			
L66600-01ASD	ASD	07/01/21 12:42	MS210610-2	5.005	U	4.79957	mg/L	96	70	130	1	20	

Arizona Minerals Inc.

ACZ Project ID: ***L66538***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.05		.04966	mg/L	99	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.0006	0.0006			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.00044	0.00044			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.05005		.04692	mg/L	94	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.05005	.00297	.04702	mg/L	88	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.05005	.00297	.04612	mg/L	86	70	130	2	20	

Barium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	2		1.9712	mg/L	99	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.021	0.021			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	.5		.4813	mg/L	96	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	.5	.0553	.5365	mg/L	96	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	.5	.0553	.535	mg/L	96	85	115	0	20	

Barium, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522064													
WG522064ICV	ICV	06/29/21 2:05	II210620-2	2		2	mg/L	100	95	105			
WG522064ICB	ICB	06/29/21 2:11				U	mg/L		-0.021	0.021			
WG522005LRB	LRB	06/29/21 2:23				U	mg/L		-0.0154	0.0154			
WG522005LFB	LFB	06/29/21 2:26	II210622-2	.5		.486	mg/L	97	85	115			
L66608-01LFM	LFM	06/29/21 2:45	II210622-2	.5	U	.512	mg/L	102	70	130			
L66608-01LFMD	LFMD	06/29/21 2:48	II210622-2	.5	U	.527	mg/L	105	70	130	3	20	

Beryllium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522751													
WG522751ICV	ICV	07/08/21 18:18	MS210630-2	.05		.046552	mg/L	93	90	110			
WG522751ICB	ICB	07/08/21 18:20				.000117	mg/L		-0.000176	0.000176			
WG522751LFB	LFB	07/08/21 18:22	MS210702-2	.05005		.046979	mg/L	94	85	115			
L66655-02AS	AS	07/08/21 18:33	MS210702-2	.05005	.0005	.046094	mg/L	91	70	130			
L66655-02ASD	ASD	07/08/21 18:35	MS210702-2	.05005	.0005	.046227	mg/L	91	70	130	0	20	

Beryllium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.05		.045817	mg/L	92	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.00024	0.00024			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.000176	0.000176			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.05005		.045213	mg/L	90	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.05005	.00011	.046275	mg/L	92	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.05005	.00011	.045633	mg/L	91	70	130	1	20	

Arizona Minerals Inc. ACZ Project ID: ***L66538***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cadmium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522333													
WG522333ICV	ICV	07/01/21 12:19	MS210630-2	.05		.05232	mg/L	105	90	110			
WG522333ICB	ICB	07/01/21 12:20				U	mg/L		-0.00011	0.00011			
WG522333LFB	LFB	07/01/21 12:22	MS210610-2	.05005		.04948	mg/L	99	85	115			
L66600-01AS	AS	07/01/21 12:40	MS210610-2	5.005	.0177	4.951293	mg/L	99	70	130			
L66600-01ASD	ASD	07/01/21 12:42	MS210610-2	5.005	.0177	4.997372	mg/L	99	70	130	1	20	

Cadmium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.05		.049261	mg/L	99	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.00015	0.00015			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.00011	0.00011			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.05005		.044539	mg/L	89	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.05005	.000087	.04379	mg/L	87	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.05005	.000087	.042725	mg/L	85	70	130	2	20	

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	100		99.19	mg/L	99	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.3	0.3			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	67.98753		68.71	mg/L	101	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	67.98753	27.2	94.63	mg/L	99	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	67.98753	27.2	95.53	mg/L	101	85	115	1	20	

Chromium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	2		1.951	mg/L	98	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.06	0.06			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	.502		.488	mg/L	97	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	.502	U	.48	mg/L	96	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	.502	U	.483	mg/L	96	85	115	1	20	

Chromium, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522064													
WG522064ICV	ICV	06/29/21 2:05	II210620-2	2		1.957	mg/L	98	95	105			
WG522064ICB	ICB	06/29/21 2:11				U	mg/L		-0.06	0.06			
WG522005LRB	LRB	06/29/21 2:23				U	mg/L		-0.044	0.044			
WG522005LFB	LFB	06/29/21 2:26	II210622-2	.502		.487	mg/L	97	85	115			
L66608-01LFM	LFM	06/29/21 2:45	II210622-2	.502	U	.459	mg/L	91	70	130			
L66608-01LFMD	LFMD	06/29/21 2:48	II210622-2	.502	U	.497	mg/L	99	70	130	8	20	

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Conductivity @25C SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521319													
WG521319LCSW2	LCSW	06/17/21 19:48	PCN63133	1410		1434	umhos/cm	102	90	110			
WG521319LCSW5	LCSW	06/17/21 23:02	PCN63133	1410		1429	umhos/cm	101	90	110			
WG521319LCSW8	LCSW	06/18/21 2:11	PCN63133	1410		1423	umhos/cm	101	90	110			
WG521319LCSW11	LCSW	06/18/21 5:22	PCN63133	1410		1413	umhos/cm	100	90	110			
L66546-03DUP	DUP	06/18/21 7:14			734	736	umhos/cm				0	20	
WG521319LCSW14	LCSW	06/18/21 8:47	PCN63133	1410		1406	umhos/cm	100	90	110			

Copper, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	2		1.93	mg/L	97	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.03	0.03			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	.502		.475	mg/L	95	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	.502	U	.482	mg/L	96	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	.502	U	.475	mg/L	95	85	115	1	20	

Copper, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522064													
WG522064ICV	ICV	06/29/21 2:05	II210620-2	2		1.978	mg/L	99	95	105			
WG522064ICB	ICB	06/29/21 2:11				U	mg/L		-0.03	0.03			
WG522005LRB	LRB	06/29/21 2:23				U	mg/L		-0.022	0.022			
WG522005LFB	LFB	06/29/21 2:26	II210622-2	.502		.492	mg/L	98	85	115			
L66608-01LFM	LFM	06/29/21 2:45	II210622-2	.502	U	.496	mg/L	99	70	130			
L66608-01LFMD	LFMD	06/29/21 2:48	II210622-2	.502	U	.53	mg/L	106	70	130	7	20	

Cyanide, Free D6888-09/OIA-1677-09

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521244													
WG521244ICV	ICV	06/17/21 11:48	WI210614-9	.3		.3041	mg/L	101	90	110			
WG521244ICB	ICB	06/17/21 11:50				U	mg/L		-0.003	0.003			
WG521244LFB	LFB	06/17/21 11:54	WI210614-8	.1		.1055	mg/L	106	90	110			
L66538-01AS	AS	06/17/21 12:06	WI210614-8	.1	U	.1101	mg/L	110	90	110			
L66538-01ASD	ASD	06/17/21 12:08	WI210614-8	.1	U	.1058	mg/L	106	90	110	4	20	

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522254													
WG522254ICV	ICV	06/30/21 12:25	WC210623-1	2.002		1.99	mg/L	99	90	110			
WG522254ICB	ICB	06/30/21 12:30				U	mg/L		-0.3	0.3			
WG522254LFB1	LFB	06/30/21 12:37	WC201221-2	5.015		4.93	mg/L	98	90	110			
WG522254LFB2	LFB	06/30/21 15:17	WC201221-2	5.015		4.98	mg/L	99	90	110			
L66617-03AS	AS	06/30/21 16:18	WC201221-2	5.015	.17	4.95	mg/L	95	90	110			
L66617-03ASD	ASD	06/30/21 16:21	WC201221-2	5.015	.17	4.98	mg/L	96	90	110	1	20	

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	2		1.928	mg/L	96	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.18	0.18			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	1.0018		1.147	mg/L	114	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	1.0018	U	.994	mg/L	99	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	1.0018	U	.992	mg/L	99	85	115	0	20	

Iron, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522064													
WG522064ICV	ICV	06/29/21 2:05	II210620-2	2		1.985	mg/L	99	95	105			
WG522064ICB	ICB	06/29/21 2:11				U	mg/L		-0.18	0.18			
WG522005LRB	LRB	06/29/21 2:23				U	mg/L		-0.132	0.132			
WG522005LFB	LFB	06/29/21 2:26	II210622-2	1.0018		1.015	mg/L	101	85	115			
L66608-01LFM	LFM	06/29/21 2:45	II210622-2	1.0018	1.23	2.392	mg/L	116	70	130			
L66608-01LFMD	LFMD	06/29/21 2:48	II210622-2	1.0018	1.23	2.423	mg/L	119	70	130	1	20	

Lead, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522333													
WG522333ICV	ICV	07/01/21 12:19	MS210630-2	.05		.05211	mg/L	104	90	110			
WG522333ICB	ICB	07/01/21 12:20				U	mg/L		-0.00022	0.00022			
WG522333LFB	LFB	07/01/21 12:22	MS210610-2	.05005		.04942	mg/L	99	85	115			
L66600-01AS	AS	07/01/21 12:40	MS210610-2	5.005	U	4.98735	mg/L	100	70	130			
L66600-01ASD	ASD	07/01/21 12:42	MS210610-2	5.005	U	4.98248	mg/L	100	70	130	0	20	

Lead, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.05		.05242	mg/L	105	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.0003	0.0003			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.00022	0.00022			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.05005		.04703	mg/L	94	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.05005	.00138	.0477	mg/L	93	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.05005	.00138	.04712	mg/L	91	70	130	1	20	

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	100		97.64	mg/L	98	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.6	0.6			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	50.00302		49.06	mg/L	98	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	50.00302	7.46	56.58	mg/L	98	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	50.00302	7.46	57.41	mg/L	100	85	115	1	20	

Arizona Minerals Inc.

ACZ Project ID: ***L66538***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	2		1.949	mg/L	97	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.03	0.03			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	.5005		.484	mg/L	97	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	.5005	U	.482	mg/L	96	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	.5005	U	.482	mg/L	96	85	115	0	20	

Manganese, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522064													
WG522064ICV	ICV	06/29/21 2:05	II210620-2	2		1.983	mg/L	99	95	105			
WG522064ICB	ICB	06/29/21 2:11				U	mg/L		-0.03	0.03			
WG522005LRB	LRB	06/29/21 2:23				U	mg/L		-0.022	0.022			
WG522005LFB	LFB	06/29/21 2:26	II210622-2	.5005		.484	mg/L	97	85	115			
L66608-01LFM	LFM	06/29/21 2:45	II210622-2	.5005	.398	.891	mg/L	99	70	130			
L66608-01LFMD	LFMD	06/29/21 2:48	II210622-2	.5005	.398	.901	mg/L	100	70	130	1	20	

Mercury, dissolved M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522141													
WG522141ICV	ICV	06/30/21 10:31	HG210601-3	.00501		.00487	mg/L	97	90	110			
WG522141ICB	ICB	06/30/21 10:31				U	mg/L		-0.0006	0.0006			
WG522208													
WG522208LRB	LRB	06/30/21 12:14				U	mg/L		-0.00044	0.00044			
WG522208LFB	LFB	06/30/21 12:15	HG210628-3	.002002		.00175	mg/L	87	85	115			
L66651-07LFM	LFM	06/30/21 12:37	HG5XPREP	.01001	U	.00835	mg/L	83	85	115			MA
L66651-07LFMD	LFMD	06/30/21 12:38	HG5XPREP	.01001	U	.00865	mg/L	86	85	115	4	20	

Mercury, total M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521581													
WG521581ICV	ICV	06/23/21 10:03	HG210601-3	.00501		.00507	mg/L	101	95	105			
WG521581ICB	ICB	06/23/21 10:04				U	mg/L		-0.0002	0.0002			
WG521660													
WG521660LRB	LRB	06/23/21 13:28				U	mg/L		-0.00044	0.00044			
WG521660LFB	LFB	06/23/21 13:29	HG210601-6	.002002		.00174	mg/L	87	85	115			
L66538-01LFM	LFM	06/23/21 13:31	HG210601-6	.002002	U	.00178	mg/L	89	85	115			
L66538-01LFMD	LFMD	06/23/21 13:32	HG210601-6	.002002	U	.00175	mg/L	87	85	115	2	20	

Nickel, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	2		1.93	mg/L	97	95	105			
WG522149ICB	ICB	06/30/21 16:11				U	mg/L		-0.024	0.024			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	.5		.48	mg/L	96	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	.5	U	.4781	mg/L	96	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	.5	U	.4736	mg/L	95	85	115	1	20	

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522064													
WG522064ICV	ICV	06/29/21 2:05	II210620-2	2		1.9835	mg/L	99	95	105			
WG522064ICB	ICB	06/29/21 2:11				U	mg/L		-0.024	0.024			
WG522005LRB	LRB	06/29/21 2:23				U	mg/L		-0.0176	0.0176			
WG522005LFB	LFB	06/29/21 2:26	II210622-2	.5		.4922	mg/L	98	85	115			
L66608-01LFM	LFM	06/29/21 2:45	II210622-2	.5	U	.4915	mg/L	98	70	130			
L66608-01LFMD	LFMD	06/29/21 2:48	II210622-2	.5	U	.4945	mg/L	99	70	130	1	20	

Nitrate/Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521435													
WG521435ICV	ICV	06/19/21 21:33	WI210603-7	2.416		2.258	mg/L	93	90	110			
WG521435ICB	ICB	06/19/21 21:35				U	mg/L		-0.02	0.02			
WG521435LFB	LFB	06/19/21 21:38	WI210331-13	2		2.004	mg/L	100	90	110			
L66459-01AS	AS	06/19/21 22:12	WI210331-13	30	15.3	45.506	mg/L	101	90	110			
L66459-02DUP	DUP	06/19/21 22:14			43.5	43.51	mg/L				0	20	

Nitrite as N, dissolved M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521435													
WG521435ICV	ICV	06/19/21 21:33	WI210603-7	.609		.561	mg/L	92	90	110			
WG521435ICB	ICB	06/19/21 21:35				U	mg/L		-0.01	0.01			
WG521435LFB	LFB	06/19/21 21:38	WI210331-13	1		.98	mg/L	98	90	110			
L66459-01AS	AS	06/19/21 21:41	WI210331-13	1	.023	.967	mg/L	94	90	110			
L66459-02DUP	DUP	06/19/21 21:43			.127	.129	mg/L				2	20	

pH (lab) SM4500H+ B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521319													
WG521319LCSW1	LCSW	06/17/21 19:46	PCN61687	6		6	units	100	5.9	6.1			
WG521319LCSW4	LCSW	06/17/21 23:01	PCN61687	6		6	units	100	5.9	6.1			
WG521319LCSW7	LCSW	06/18/21 2:09	PCN61687	6		6	units	100	5.9	6.1			
WG521319LCSW10	LCSW	06/18/21 5:21	PCN61687	6		6	units	100	5.9	6.1			
L66546-03DUP	DUP	06/18/21 7:14			7.3	7.3	units				0	20	
WG521319LCSW13	LCSW	06/18/21 8:45	PCN61687	6		6	units	100	5.9	6.1			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG521391													
WG521391PBW	PBW	06/18/21 11:45				U	mg/L		-20	20			
WG521391LCSW	LCSW	06/18/21 11:47	PCN63552	1000		990	mg/L	99	80	120			
L66561-02DUP	DUP	06/18/21 12:45			248	256	mg/L				3	10	RA

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522333													
WG522333ICV	ICV	07/01/21 12:19	MS210630-2	.05		.05111	mg/L	102	90	110			
WG522333ICB	ICB	07/01/21 12:20				U	mg/L		-0.00022	0.00022			
WG522333LFB	LFB	07/01/21 12:22	MS210610-2	.05		.04966	mg/L	99	85	115			
L66600-01AS	AS	07/01/21 12:40	MS210610-2	5	U	4.84565	mg/L	97	70	130			
L66600-01ASD	ASD	07/01/21 12:42	MS210610-2	5	U	4.8732	mg/L	97	70	130	1	20	

Selenium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.05		.05052	mg/L	101	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.0003	0.0003			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.00022	0.00022			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.05		.04846	mg/L	97	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.05	U	.04698	mg/L	94	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.05	U	.04424	mg/L	88	70	130	6	20	

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522703													
WG522703ICB	ICB	07/08/21 8:36				1	mg/L		-3	3			
WG522703ICV	ICV	07/08/21 8:36	WI210629-1	20.46		20	mg/L	98	90	110			
WG522703LFB	LFB	07/08/21 13:14	WI210105-3	10		10.2	mg/L	102	90	110			
L66531-06AS	AS	07/08/21 14:21	SO4TURB30X	9.99	615	606.3	mg/L	-87	90	110			M3
L66519-01DUP	DUP	07/08/21 14:26			19900	22746.4	mg/L				13	20	

Thallium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522333													
WG522333ICV	ICV	07/01/21 12:19	MS210630-2	.05		.05247	mg/L	105	90	110			
WG522333ICB	ICB	07/01/21 12:20				U	mg/L		-0.00022	0.00022			
WG522333LFB	LFB	07/01/21 12:22	MS210610-2	.05		.04841	mg/L	97	85	115			
L66600-01AS	AS	07/01/21 12:40	MS210610-2	5	U	4.93844	mg/L	99	70	130			
L66600-01ASD	ASD	07/01/21 12:42	MS210610-2	5	U	4.89615	mg/L	98	70	130	1	20	

Thallium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.05		.05079	mg/L	102	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.0003	0.0003			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.00022	0.00022			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.05		.04554	mg/L	91	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.05	U	.04441	mg/L	89	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.05	U	.04508	mg/L	90	70	130	1	20	

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522149													
WG522149ICV	ICV	06/30/21 16:05	II210628-1	2		1.909	mg/L	95	95	105			
WG522149ICB	ICB	06/30/21 16:11				.021	mg/L		-0.06	0.06			
WG522149LFB	LFB	06/30/21 16:23	II210622-2	.50075		.472	mg/L	94	85	115			
L66558-03AS	AS	06/30/21 16:41	II210622-2	.50075	U	.486	mg/L	97	85	115			
L66558-03ASD	ASD	06/30/21 16:44	II210622-2	.50075	U	.51	mg/L	102	85	115	5	20	

Zinc, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG522253													
WG522253ICV	ICV	06/30/21 11:53	MS210503-1	.05		.0511	mg/L	102	90	110			
WG522253ICB	ICB	06/30/21 11:54				U	mg/L		-0.018	0.018			
WG522077LRB	LRB	06/30/21 11:56				U	mg/L		-0.0132	0.0132			
WG522077LFB	LFB	06/30/21 11:58	MS210610-2	.050075		.0479	mg/L	96	85	115			
L66595-01LFM	LFM	06/30/21 12:07	MS210610-2	.050075	.0068	.0517	mg/L	90	70	130			
L66595-01LFMD	LFMD	06/30/21 12:09	MS210610-2	.050075	.0068	.0506	mg/L	87	70	130	2	20	

Inorganic Extended Qualifier Report

Arizona Minerals Inc.

ACZ Project ID: ***L66538***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L66538-01	WG521397	Acidity as CaCO3	SM2310B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG521244	Cyanide, Free	D6888-09/OIA-1677-09	Q10	Sample received in inappropriate sample container.
	WG522208	Mercury, dissolved	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG521435	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
	WG521391	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
			SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG522703	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG521319	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Arizona Minerals Inc.
Project ID:
Sample ID: MW3-06142021
Locator:

ACZ Sample ID: ***L66538-01***
Date Sampled: *06/14/21 14:03*
Date Received: *06/16/21*
Sample Matrix: *Groundwater*

Gross Alpha & Beta, total
M900.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha (1312)	07/01/21 0:30		1.4	5.5	29	pCi/L	*	ess
Gross Beta (1312)	07/01/21 0:30		3.8	9.2	19	pCi/L	*	ess

Radium 226 + Alpha Emitting Radium Isotopes, total
M903.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 + Alpha	07/01/21 0:10		0.36	0.14	0.37	pCi/L	*	ess

Radium 228, total
M904.0

Prep Method:

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	07/06/21 15:44		-0.15	0.73	1.8	pCi/L	*	fdw

Arizona license number: AZ0102

Radiochemistry Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Error(+/-)	Calculated sample specific uncertainty
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
LCL	Lower Control Limit, in % (except for LCSS, mg/Kg)
LLD	Calculated sample specific Lower Limit of Detection
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RER	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
UCL	Upper Control Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

DUP	Sample Duplicate	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSS	Laboratory Control Sample - Soil	*PBS*	Prep Blank - Soil
LCSW	Laboratory Control Sample - Water	*PBW*	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.

Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

(1) Solid matrices are reported on a dry weight basis.

(2) Preparation method: "Method" indicates preparation defined in analytical method.

(3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.

(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

Radiochemistry QC Summary

Arizona Minerals Inc.

ACZ Project ID: ***L66538***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alpha M900.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG521774																
WG521774PBW	PBW	07/01/21						.1	0.51	0.75			1.5			
WG521774LCSWA	LCSW	07/01/21	PCN62436	100				110	9.1	1.3	110	67	144			
L66483-02MSA	MS	07/01/21	PCN62436	100	2.4	1.9	8.7	85	9.3	6.5	83	67	144			
L66483-02DUP	DUP-RPD	07/01/21			2.4	1.9	8.7	1.8	1.5	5.9				29	20	RG
L66483-02DUP	DUP-RER	07/01/21			2.4	1.9	8.7	1.8	1.5	5.9				0.25	2	
L66558-03DUP	DUP-RER	07/01/21			1.2	1.4	5.5	2.4	1.9	6.8				0.51	2	
L66558-03DUP	DUP-RPD	07/01/21			1.2	1.4	5.5	2.4	1.9	6.8				67	20	RG

Beta M900.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG521774																
WG521774PBW	PBW	07/01/21						-1.1	1.6	1.8			3.6			
WG521774LCSWB	LCSW	07/01/21	RC210621-11	49.9				56	4.9	2.5	112	82	122			
L66483-02DUP	DUP-RPD	07/01/21			13	3.2	6.9	6.2	3.1	8.2				71	20	RG
L66483-02DUP	DUP-RER	07/01/21			13	3.2	6.9	6.2	3.1	8.2				1.53	2	
L66558-03DUP	DUP-RPD	07/01/21			3.3	2.9	9	1.7	2.6	6.7				64	20	RG
L66558-03DUP	DUP-RER	07/01/21			3.3	2.9	9	1.7	2.6	6.7				0.41	2	
L66558-03MSB	MS	07/01/21	RC210621-11	49.9	3.3	2.9	9	55	5.1	11	104	82	122			

Radium 226 + Alpha Emitting Radium M903.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG521870																
WG521870PBW	PBW	07/01/21						.04	0.08	0.51			1.02			
WG521870LCSW	LCSW	07/01/21	PCN62879	20				19	0.97	0.4	95	66	132			
L66380-02MS	MS	07/01/21	PCN62879	21.74	0.34	0.14	0.37	20	1	0.42	90	66	132			
L66538-01DUP	DUP-RPD	07/01/21			0.36	0.14	0.37	.28	0.12	0.36				25	20	RG
L66538-01DUP	DUP-RER	07/01/21			0.36	0.14	0.37	.28	0.12	0.36				0.43	2	

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 228, total M904.0 **Units:** pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG521520																
L66280-01DUP	DUP-RER	07/06/21			0.34	0.88	2.3	-.44	0.86	2.2				0.63	2	
WG521520LCSW	LCSW	07/06/21	PCN63356	9.68				8.7	1	0.71	90	47	123			
WG521520PBW	PBW	07/06/21						.73	0.49	0.48			0.96			
L66280-01DUP	DUP-RPD	07/06/21			0.34	0.88	2.3	-.44	0.86	2.2				1560	20	RG
L66538-01DUP	DUP-RPD	07/06/21			-0.15	0.73	1.8	1.6	0.72	1.6				241	20	RG
L66284-03MS	MS	07/06/21	PCN63356	9.68	1.3	0.9	2.1	9.6	1.1	1.9	86	47	123			
L66538-01DUP	DUP-RER	07/06/21			-0.15	0.73	1.8	1.6	0.72	1.6				1.71	2	

RadChem Extended Qualifier Report

Arizona Minerals Inc.

ACZ Project ID: ***L66538***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L66538-01	WG521774	Gross Alpha (1312)	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta (1312)	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG521870	Radium 226 + Alpha Emitting Radium Isotopes, total	M903.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG521520	Radium 228, total	M904.0	Q5	Sample received with inadequate chemical preservation. Additional preservation performed by the laboratory.
			M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Cyanide, Free	D6888-09/OIA-1677-09

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Arizona Minerals Inc.

ACZ Project ID: L66538
Date Received: 06/16/2021 11:07
Received By:
Date Printed: 6/17/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?		X	
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? 1		X	

L66538-01 Container B2416719 (RED CUBE): Added 10 mls nitric acid to the sub-sample to adjust the pH to the appropriate range.

	YES	NO	NA
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?		X	

L66538-01 : A Green container not received and a new container created from the Raw .

	YES	NO	NA
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6000	0.4	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Arizona Minerals Inc.

ACZ Project ID: L66538
Date Received: 06/16/2021 11:07
Received By:
Date Printed: 6/17/2021

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L66538

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Kara Haas
Company: South32
E-mail: kara.haas@south32.net

Address: 2210 E. Ft. Lowell Rd.
Tucson, AZ 85719
Telephone: 505-947-1738

Copy of Report to:

Name: Sheena Leon
Company: South32

E-mail: sheena.leon@south32.net
Telephone: 520-403-9998

Invoice to:

Name: Janel foshee
Company: South32
E-mail: hermosaaccounts@south32.net

Address: 2210 E. Ft. Lowell Rd.
Tucson, AZ 85719
Telephone: 520-8481338

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ☐ NO ☒

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes ☐ No ☒
If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Jaime L. **Sampler's Site Information** **State** AZ **Zip code** 85624 **Time Zone** AZ
***Sampler's Signature:**

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #:
PO#:
Reporting state for compliance testing:
Check box if samples include NRC licensed material? ☐

ANALYSES REQUESTED (attach list or use quote number)

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	See attached							
MW3 - 06142021	6-14-21 2:03pm	WW	5	☑	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐

Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Jaime Lopez	6-15-21 8:00am		6/16/21 11:07

FRMAD050.06.14.14 White - Return with sample. Yellow - Retain for your records.

L66538 Chain of Custod

POC-2 Semi-Annual Suite

Analyte	LABORATORY Total	Dissolved	Other
Metals			
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Cadmium	X	X	
Chromium	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Hardness	X		
Major Anions			
Total Alkalinity	X		
Acidity	X		
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Nitrate-Nitrite as N 1	X	X	
Sulfate	X	X	
Parameters			
Total Dissolved Solids		X	
pH			X
Specific Conductivity			X
RadChem			
Gross Alpha Particle Activity	X	X	
Radium 226 + 228	X	X	
Cyanide			
Free CN	X	X	Free

FIELD MEASUREMENTS
pH
Specific conductance

Temperature
Depth to water

Bottle List

Volume	Preservative	Parameter
Cubetainer	Non-Preserved	RadChem
500ml	Non-Preserved	Ions/Dissolved Metals
250ml	HNO3	Total Metals
500ml	NaOH	Cyanide
250ml	Non-Preserved	TDS/pH/Conductivity

TURNER
LABORATORIES INC.

October 27, 2021

Sheena Leon
Arizona Minerals Inc.
2210 E. Fort Lowell Rd
Tucson, AZ 85719

TEL (802) 235-5563
FAX

Work Order No.: 21I0458
Order Name: Hermosa

RE: Groundwater

Dear Sheena Leon,

Turner Laboratories, Inc. received 2 sample(s) on 09/15/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

Order: Hermosa

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21I0458-01	POC 2 - 09142021	Ground Water	09/14/2021 1015
21I0458-02	MW3 - 09142021	Ground Water	09/14/2021 1025

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

Case Narrative

The Cyanide and Cyanide WAD analysis was performed by TestAmerica Laboratories, Inc. in Phoenix, AZ.

The radiochemistry analysis was performed by Radiation Safety Engineering, Inc. in Chandler, AZ.

This report was originally generated on 9/28/2021. It is being revised on 10/26/2021 to include Radium 226 and 228, which was not on the original report.

E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
H1	Sample analysis was performed past holding time.
H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
M1	Matrix spike recovery was high; the associated LCS/LCSD was acceptable.
M2	Matrix spike recovery was low; the associated LCS/LCSD was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
Q9	Insufficient sample received to meet method QC requirements.
R9	Sample RPD exceeded the laboratory acceptance limit.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC 2 - 09142021
Project:	Groundwater	**Collection Date/Time:**	09/14/2021 1015
Work Order:	21I0458	**Matrix:**	Ground Water
Lab Sample ID:	21I0458-01	**Order Name:**	Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2000				mg/L	1	09/16/2021 1125	09/17/2021 1120	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	09/15/2021 1037	09/16/2021 0534	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	ND		0.10		mg/L	1	09/20/2021 1030	09/21/2021 1051	MH
Calcium	490		4.0		mg/L	1	09/20/2021 1030	09/21/2021 1051	MH
Iron	ND		0.30		mg/L	1	09/20/2021 1030	09/21/2021 1051	MH
Magnesium	210		3.0		mg/L	1	09/20/2021 1030	09/21/2021 1051	MH
Potassium	5.8		5.0		mg/L	1	09/20/2021 1030	09/21/2021 1051	MH
Silica	24		0.20		mg/L	1	09/20/2021 1030	09/21/2021 1051	MH
Sodium	31		5.0		mg/L	1	09/20/2021 1030	09/21/2021 1051	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Antimony	0.00027	0.000039	0.00050	E4	mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Arsenic	0.0024		0.00050		mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Barium	0.015		0.00050		mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Beryllium	0.00035		0.00025		mg/L	1	09/20/2021 1030	09/23/2021 1251	CR
Cadmium	0.0066		0.00025		mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Chromium	ND		0.00050		mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Cobalt	0.023		0.00025		mg/L	1	09/20/2021 1030	09/23/2021 1251	CR
Copper	0.00022	0.00015	0.00050	E4	mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Lead	ND	0.000057	0.00050	E8	mg/L	1	09/20/2021 1030	09/23/2021 1251	CR
Manganese	19		0.013		mg/L	50	09/20/2021 1030	09/23/2021 1241	CR
Nickel	0.035		0.00050		mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Selenium	0.00057	0.00025	0.0025	E4	mg/L	1	09/20/2021 1030	09/23/2021 1251	CR
Silver	ND	0.000021	0.00050	E8	mg/L	1	09/20/2021 1030	09/23/2021 1754	CR
Thallium	0.000029	0.000023	0.00050	E4	mg/L	1	09/20/2021 1030	09/21/2021 1655	CR
Zinc	4.0		2.0		mg/L	50	09/20/2021 1030	09/23/2021 1241	CR
CVAA Dissolved Mercury-E 245.1									

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC 2 - 09142021
Project:	Groundwater	**Collection Date/Time:**	09/14/2021 1015
Work Order:	21I0458	**Matrix:**	Ground Water
Lab Sample ID:	21I0458-01	**Order Name:**	Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Mercury	ND	0.000041	0.0010	E8, V1	mg/L	1	09/21/2021 1332	09/21/2021 1559	CWB
Turbidity-E180.1									
Turbidity	3.6		0.10	H1	NTU	1	09/16/2021 1025	09/16/2021 1040	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	ND		0.10		mg/L	1	09/16/2021 1125	09/17/2021 1120	MH
Calcium	460		4.0		mg/L	1	09/16/2021 1125	09/17/2021 1120	MH
Iron	0.91		0.30		mg/L	1	09/16/2021 1125	09/17/2021 1120	MH
Magnesium	200		3.0		mg/L	1	09/16/2021 1125	09/17/2021 1120	MH
Potassium	5.6		5.0		mg/L	1	09/16/2021 1125	09/17/2021 1120	MH
Silica	23		1.0		mg/L	5	09/16/2021 1125	09/17/2021 1554	MH
Sodium	29		5.0		mg/L	1	09/16/2021 1125	09/17/2021 1120	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Antimony	0.00038	0.000039	0.00050	E4	mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Arsenic	0.0048		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Barium	0.017		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Beryllium	0.00046		0.00025		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Cadmium	0.0071		0.00025		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Chromium	0.0056		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Cobalt	0.0240		0.000250		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Copper	0.00052		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Lead	0.0050		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Manganese	18		0.013		mg/L	50	09/17/2021 1030	09/21/2021 1318	CR
Nickel	0.040		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Selenium	0.0011	0.00025	0.0025	E4	mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Silver	ND		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Thallium	ND		0.00050		mg/L	1	09/17/2021 1030	09/21/2021 1118	CR
Zinc	3.4		2.0		mg/L	50	09/17/2021 1030	09/21/2021 1318	CR
CVAA Total Mercury-E245.1									
Mercury	ND	0.00036	0.0010	E8	mg/L	1	09/23/2021 1015	09/23/2021 1558	CWB
Anions by Ion Chromatography-E300.0 (2.1)									

Client:	Arizona Minerals Inc.	**Client Sample ID:**	POC 2 - 09142021
Project:	Groundwater	**Collection Date/Time:**	09/14/2021 1015
Work Order:	21I0458	**Matrix:**	Ground Water
Lab Sample ID:	21I0458-01	**Order Name:**	Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Chloride	10		1.0		mg/L	1	09/15/2021 1037	09/16/2021 0534	JG
Fluoride	0.89		0.50		mg/L	1	09/15/2021 1037	09/16/2021 0534	JG
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	09/15/2021 1037	09/16/2021 0534	JG
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	09/15/2021 1037	09/16/2021 0534	JG
Sulfate	1800		500		mg/L	100	09/15/2021 1037	09/21/2021 0242	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	190		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Total (As CaCO3)	190		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Specific Conductance-SM2510 B									
Conductivity	4400		1.0		µmhos/cm	10	09/22/2021 1034	09/22/2021 1036	CWB
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3000		20		mg/L	1	09/16/2021 0810	09/20/2021 1300	AGC
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	ND		10	Q9	mg/L	1	09/20/2021 0905	09/21/2021 0912	AGC
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	ND		0.50		mg/L	1	09/22/2021 0800	09/22/2021 1305	JG
pH-SW9045D									
pH (pH Units)	7.1			H5	-	1	09/16/2021 1520	09/16/2021 1647	CWB
Temperature (°C)	22			H5	-	1	09/16/2021 1520	09/16/2021 1647	CWB

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Lab Sample ID: 21I0458-02

Client Sample ID: MW3 - 09142021
Collection Date/Time: 09/14/2021 1025
Matrix: Ground Water
Order Name: Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2000				mg/L	1	09/16/2021 1125	09/17/2021 1123	MH
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	09/15/2021 1037	09/16/2021 0554	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	ND		0.10		mg/L	1	09/20/2021 1030	09/21/2021 1054	MH
Calcium	520		4.0		mg/L	1	09/20/2021 1030	09/21/2021 1054	MH
Iron	ND		0.30		mg/L	1	09/20/2021 1030	09/21/2021 1054	MH
Magnesium	230		3.0		mg/L	1	09/20/2021 1030	09/21/2021 1054	MH
Potassium	6.4		5.0		mg/L	1	09/20/2021 1030	09/21/2021 1054	MH
Silica	24		0.20		mg/L	1	09/20/2021 1030	09/21/2021 1054	MH
Sodium	30		5.0		mg/L	1	09/20/2021 1030	09/21/2021 1054	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Antimony	0.00029	0.000039	0.00050	E4	mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Arsenic	0.0026		0.00050		mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Barium	0.015		0.00050		mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Beryllium	0.00052		0.00025		mg/L	1	09/20/2021 1030	09/23/2021 1254	CR
Cadmium	0.0065		0.00025		mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Chromium	ND	0.000023	0.00050	E8	mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Cobalt	0.021		0.00025		mg/L	1	09/20/2021 1030	09/23/2021 1254	CR
Copper	0.00016	0.00015	0.00050	E4	mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Lead	ND	0.000057	0.00050	E8	mg/L	1	09/20/2021 1030	09/23/2021 1254	CR
Manganese	17		0.013		mg/L	50	09/20/2021 1030	09/23/2021 1244	CR
Nickel	0.034		0.00050		mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Selenium	0.00047	0.00025	0.0025	E4	mg/L	1	09/20/2021 1030	09/23/2021 1254	CR
Silver	ND	0.000021	0.00050	E8	mg/L	1	09/20/2021 1030	09/23/2021 1757	CR
Thallium	ND	0.000023	0.00050	E8	mg/L	1	09/20/2021 1030	09/21/2021 1659	CR
Zinc	3.7		2.0		mg/L	50	09/20/2021 1030	09/23/2021 1244	CR
CVAA Dissolved Mercury-E 245.1									
Mercury	ND	0.000041	0.0010	E8, V1	mg/L	1	09/21/2021 1332	09/21/2021 1627	CWB
Turbidity-E180.1									

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Lab Sample ID: 21I0458-02

Client Sample ID: MW3 - 09142021
Collection Date/Time: 09/14/2021 1025
Matrix: Ground Water
Order Name: Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Turbidity	5.7		0.10	H1	NTU	1	09/16/2021 1025	09/16/2021 1040	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	ND		0.10		mg/L	1	09/16/2021 1125	09/17/2021 1123	MH
Calcium	450		4.0		mg/L	1	09/16/2021 1125	09/17/2021 1123	MH
Iron	0.88		0.30		mg/L	1	09/16/2021 1125	09/17/2021 1123	MH
Magnesium	200		3.0		mg/L	1	09/16/2021 1125	09/17/2021 1123	MH
Potassium	5.9		5.0		mg/L	1	09/16/2021 1125	09/17/2021 1123	MH
Silica	24		0.20		mg/L	1	09/16/2021 1125	09/17/2021 1557	MH
Sodium	29		5.0		mg/L	1	09/16/2021 1125	09/17/2021 1123	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	0.050		0.040		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Antimony	0.00040	0.000039	0.00050	E4	mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Arsenic	0.0043		0.00050		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Barium	0.016		0.00050		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Beryllium	0.00045		0.00025		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Cadmium	0.0075		0.00025		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Chromium	0.00017	0.000023	0.00050	E4	mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Cobalt	0.0228		0.000250		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Copper	0.00036	0.00015	0.00050	E4	mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Lead	0.0053		0.00050		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Manganese	23		0.013	M3	mg/L	50	09/17/2021 1030	09/21/2021 1002	CR
Nickel	0.036		0.00050		mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Selenium	0.00082	0.00025	0.0025	E4	mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Silver	ND	0.000021	0.00050	E8	mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Thallium	0.00035	0.000023	0.00050	E4	mg/L	1	09/17/2021 1030	09/20/2021 1801	CR
Zinc	4.8		2.0	M3	mg/L	50	09/17/2021 1030	09/21/2021 1002	CR
CVAA Total Mercury-E245.1									
Mercury	ND	0.00036	0.0010	E8	mg/L	1	09/23/2021 1015	09/23/2021 1600	CWB
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	10		1.0		mg/L	1	09/15/2021 1037	09/16/2021 0554	JG
Fluoride	0.88		0.50		mg/L	1	09/15/2021 1037	09/16/2021 0554	JG
Nitrogen, Nitrate (As N)	ND		0.50		mg/L	1	09/15/2021 1037	09/16/2021 0554	JG
Nitrogen, Nitrite (As N)	ND		0.10		mg/L	1	09/15/2021 1037	09/16/2021 0554	JG
Sulfate	1800		500		mg/L	100	09/15/2021 1037	09/21/2021 0302	JG

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Lab Sample ID: 21I0458-02

Client Sample ID: MW3 - 09142021
Collection Date/Time: 09/14/2021 1025
Matrix: Ground Water
Order Name: Hermosa

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	210		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Alkalinity, Total (As CaCO3)	210		2.0		mg/L	1	09/21/2021 1223	09/21/2021 1500	AGC
Specific Conductance-SM2510 B									
Conductivity	3900		1.0		µmhos/cm	10	09/22/2021 1034	09/22/2021 1036	CWB
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	3000		20		mg/L	1	09/16/2021 0810	09/20/2021 1300	AGC
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	ND		10	Q9	mg/L	1	09/20/2021 0905	09/21/2021 0912	AGC
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	ND		0.50		mg/L	1	09/22/2021 0800	09/22/2021 1305	JG
pH-SW9045D									
pH (pH Units)	7.1			H5	-	1	09/16/2021 1520	09/16/2021 1648	CWB
Temperature (°C)	22			H5	-	1	09/16/2021 1520	09/16/2021 1648	CWB

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109203 - E200.7 (4.4)										
Blank (2109203-BLK1)				Prepared: 09/16/2021 Analyzed: 09/17/2021						
Boron	ND	0.10	mg/L							
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Potassium	ND	5.0	mg/L							
Silica	ND	0.20	mg/L							
Sodium	ND	5.0	mg/L							
LCS (2109203-BS1)				Prepared: 09/16/2021 Analyzed: 09/17/2021						
Boron	1.0	0.10	mg/L	1.000		100	85-115			
Calcium	9.5	4.0	mg/L	10.00		95	85-115			
Iron	0.99	0.30	mg/L	1.000		99	85-115			
Magnesium	9.8	3.0	mg/L	10.00		98	85-115			
Potassium	10	5.0	mg/L	10.00		101	85-115			
Sodium	10	5.0	mg/L	10.00		104	85-115			
LCS (2109203-BS2)				Prepared: 09/16/2021 Analyzed: 09/17/2021						
Silica	2.1	0.20	mg/L	2.143		99	85-115			
LCS Dup (2109203-BSD1)				Prepared: 09/16/2021 Analyzed: 09/17/2021						
Boron	1.0	0.10	mg/L	1.000		102	85-115	1	20	
Calcium	9.3	4.0	mg/L	10.00		93	85-115	2	20	
Iron	0.98	0.30	mg/L	1.000		98	85-115	1	20	
Magnesium	9.7	3.0	mg/L	10.00		97	85-115	0.6	20	
Potassium	10	5.0	mg/L	10.00		101	85-115	0.4	20	
Sodium	10	5.0	mg/L	10.00		104	85-115	0.5	20	
LCS Dup (2109203-BSD2)				Prepared: 09/16/2021 Analyzed: 09/17/2021						
Silica	2.1	0.20	mg/L	2.143		99	85-115	0.08	20	
Matrix Spike (2109203-MS1)	**Source: 21I0428-02**			Prepared: 09/16/2021 Analyzed: 09/17/2021						
Boron	1.1	0.10	mg/L	1.000	0.19	91	70-130			
Calcium	8.9	4.0	mg/L	10.00	0.70	82	70-130			
Iron	0.87	0.30	mg/L	1.000	0.017	86	70-130			
Magnesium	8.9	3.0	mg/L	10.00	0.22	87	70-130			
Potassium	9.6	5.0	mg/L	10.00	0.69	89	70-130			
Sodium	10	5.0	mg/L	10.00	1.7	87	70-130			
Matrix Spike (2109203-MS2)	**Source: 21I0428-02**			Prepared: 09/16/2021 Analyzed: 09/17/2021						
Boron	0.19	0.10	mg/L		0.19		70-130			
Calcium	0.68	4.0	mg/L		0.70		70-130			
Iron	0.018	0.30	mg/L		0.017		70-130			
Magnesium	0.22	3.0	mg/L		0.22		70-130			
Potassium	0.65	5.0	mg/L		0.69		70-130			
Silica	4.0	0.20	mg/L	2.143	1.9	98	70-130			
Sodium	1.6	5.0	mg/L		1.7		70-130			
Batch 2109214 - E 200.7 (4.4)										

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109214 - E 200.7 (4.4)										
Blank (2109214-BLK1)				Prepared: 09/17/2021 Analyzed: 09/21/2021						
Boron	ND	0.10	mg/L							
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Potassium	ND	5.0	mg/L							
Silica	ND	0.20	mg/L							
Sodium	ND	5.0	mg/L							
LCS (2109214-BS1)				Prepared: 09/17/2021 Analyzed: 09/21/2021						
Boron	1.0	0.10	mg/L	1.000		102	85-115			
Calcium	10	4.0	mg/L	10.00		101	85-115			
Iron	1.0	0.30	mg/L	1.000		100	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
Potassium	9.9	5.0	mg/L	10.00		99	85-115			
Sodium	9.7	5.0	mg/L	10.00		97	85-115			
LCS (2109214-BS2)				Prepared: 09/17/2021 Analyzed: 09/21/2021						
Silica	2.2	0.20	mg/L	2.143		101	85-115			
LCS Dup (2109214-BSD1)				Prepared: 09/17/2021 Analyzed: 09/21/2021						
Boron	1.0	0.10	mg/L	1.000		103	85-115	1	20	
Calcium	10	4.0	mg/L	10.00		100	85-115	2	20	
Iron	0.99	0.30	mg/L	1.000		99	85-115	0.7	20	
Magnesium	10	3.0	mg/L	10.00		101	85-115	0.5	20	
Potassium	10	5.0	mg/L	10.00		101	85-115	2	20	
Sodium	10	5.0	mg/L	10.00		101	85-115	4	20	
LCS Dup (2109214-BSD2)				Prepared: 09/17/2021 Analyzed: 09/21/2021						
Silica	2.2	0.20	mg/L	2.143		101	85-115	0.2	20	
Matrix Spike (2109214-MS1)	**Source: 21I0483-01**			Prepared: 09/17/2021 Analyzed: 09/21/2021						
Boron	1.4	0.10	mg/L	1.000	0.067	129	70-130			
Calcium	74	4.0	mg/L	10.00	65	92	70-130			
Iron	1.1	0.30	mg/L	1.000	0.025	110	70-130			
Magnesium	25	3.0	mg/L	10.00	15	105	70-130			
Potassium	12	5.0	mg/L	10.00	1.2	110	70-130			
Sodium	31	5.0	mg/L	10.00	21	102	70-130			
Matrix Spike (2109214-MS2)	**Source: 21I0261-03**			Prepared: 09/17/2021 Analyzed: 09/21/2021						
Boron	1.1	0.10	mg/L	1.000	0.019	111	70-130			
Calcium	36	4.0	mg/L	10.00	27	89	70-130			
Iron	1.0	0.30	mg/L	1.000	0.012	104	70-130			
Magnesium	13	3.0	mg/L	10.00	2.4	102	70-130			
Potassium	14	5.0	mg/L	10.00	3.8	106	70-130			
Sodium	12	5.0	mg/L	10.00	1.0	108	70-130			
Matrix Spike (2109214-MS3)	**Source: 21I0483-01**			Prepared: 09/17/2021 Analyzed: 09/21/2021						
Silica	29	0.20	mg/L	2.143	27	80	70-130			

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109214 - E 200.7 (4.4)										
Matrix Spike (2109214-MS4)		**Source: 21I0261-03**		Prepared: 09/17/2021 Analyzed: 09/21/2021						
Silica	11	0.20	mg/L	2.143	8.9	96	70-130			
Batch 2109242 - E200.8 (5.4)										
Blank (2109242-BLK1)				Prepared: 09/17/2021 Analyzed: 09/20/2021						
Aluminum	ND	0.040	mg/L							
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Cobalt	ND	0.000250	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Nickel	0.00025	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Silver	ND	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							
LCS (2109242-BS1)				Prepared: 09/17/2021 Analyzed: 09/20/2021						
Aluminum	0.10	0.040	mg/L	0.1000		104	85-115			
Antimony	0.049	0.00050	mg/L	0.05000		98	85-115			
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115			
Barium	0.049	0.00050	mg/L	0.05000		98	85-115			
Beryllium	0.049	0.00025	mg/L	0.05000		98	85-115			
Cadmium	0.048	0.00025	mg/L	0.05000		96	85-115			
Chromium	0.049	0.00050	mg/L	0.05000		97	85-115			
Cobalt	0.0486	0.000250	mg/L	0.05000		97	85-115			
Copper	0.048	0.00050	mg/L	0.05000		95	85-115			
Lead	0.046	0.00050	mg/L	0.05000		92	85-115			
Manganese	0.049	0.00025	mg/L	0.05000		97	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		100	85-115			
Selenium	0.046	0.0025	mg/L	0.05000		91	85-115			
Silver	0.045	0.00050	mg/L	0.05000		90	85-115			
Thallium	0.047	0.00050	mg/L	0.05000		93	85-115			
Zinc	0.10	0.040	mg/L	0.1000		101	85-115			

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109242 - E200.8 (5.4)										
LCS Dup (2109242-BSD1)				Prepared: 09/17/2021 Analyzed: 09/20/2021						
Aluminum	0.10	0.040	mg/L	0.1000		104	85-115	0.4	20	
Antimony	0.049	0.00050	mg/L	0.05000		99	85-115	0.7	20	
Arsenic	0.048	0.00050	mg/L	0.05000		97	85-115	0.2	20	
Barium	0.049	0.00050	mg/L	0.05000		98	85-115	0.9	20	
Beryllium	0.049	0.00025	mg/L	0.05000		99	85-115	0.3	20	
Cadmium	0.049	0.00025	mg/L	0.05000		97	85-115	2	20	
Chromium	0.049	0.00050	mg/L	0.05000		98	85-115	0.9	20	
Cobalt	0.0483	0.000250	mg/L	0.05000		97	85-115	0.7	20	
Copper	0.048	0.00050	mg/L	0.05000		96	85-115	0.6	20	
Lead	0.047	0.00050	mg/L	0.05000		93	85-115	0.8	20	
Manganese	0.049	0.00025	mg/L	0.05000		98	85-115	0.4	20	
Nickel	0.050	0.00050	mg/L	0.05000		99	85-115	0.08	20	
Selenium	0.047	0.0025	mg/L	0.05000		93	85-115	2	20	
Silver	0.045	0.00050	mg/L	0.05000		90	85-115	0.06	20	
Thallium	0.048	0.00050	mg/L	0.05000		96	85-115	2	20	
Zinc	0.10	0.040	mg/L	0.1000		103	85-115	2	20	
Matrix Spike (2109242-MS1)		**Source: 21I0458-02**		Prepared: 09/17/2021 Analyzed: 09/20/2021						
Aluminum	0.15	0.040	mg/L	0.1000	0.050	95	70-130			
Antimony	0.055	0.00050	mg/L	0.05000	0.00040	110	70-130			
Arsenic	0.056	0.00050	mg/L	0.05000	0.0043	103	70-130			
Barium	0.075	0.00050	mg/L	0.05000	0.016	119	70-130			
Beryllium	0.043	0.00025	mg/L	0.05000	0.00045	85	70-130			
Cadmium	0.058	0.00025	mg/L	0.05000	0.0075	100	70-130			
Chromium	0.049	0.00050	mg/L	0.05000	0.00017	97	70-130			
Cobalt	0.0696	0.000250	mg/L	0.05000	0.0228	93	70-130			
Copper	0.042	0.00050	mg/L	0.05000	0.00036	82	70-130			
Lead	0.058	0.00050	mg/L	0.05000	0.0053	105	70-130			
Manganese	18	0.013	mg/L	0.05000	23	NR	70-130			M3
Nickel	0.081	0.00050	mg/L	0.05000	0.036	91	70-130			
Selenium	0.048	0.0025	mg/L	0.05000	0.00082	94	70-130			
Silver	0.042	0.00050	mg/L	0.05000	ND	85	70-130			
Thallium	0.055	0.00050	mg/L	0.05000	0.00035	110	70-130			
Zinc	3.7	2.0	mg/L	0.1000	4.8	NR	70-130			M3

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109242 - E200.8 (5.4)										
Matrix Spike (2109242-MS2)	**Source: 21I0459-02**			Prepared: 09/17/2021 Analyzed: 09/20/2021						
Aluminum	0.25	0.040	mg/L	0.1000	0.15	102	70-130			
Antimony	0.051	0.00050	mg/L	0.05000	0.00024	101	70-130			
Arsenic	0.051	0.00050	mg/L	0.05000	0.00083	101	70-130			
Barium	0.068	0.00050	mg/L	0.05000	0.014	107	70-130			
Beryllium	0.046	0.00025	mg/L	0.05000	0.00016	92	70-130			
Cadmium	0.087	0.00025	mg/L	0.05000	0.040	92	70-130			
Chromium	0.052	0.00050	mg/L	0.05000	0.0033	97	70-130			
Cobalt	0.0564	0.000250	mg/L	0.05000	0.00764	98	70-130			
Copper	0.053	0.00050	mg/L	0.05000	0.0086	88	70-130			
Lead	0.057	0.00050	mg/L	0.05000	0.0040	107	70-130			
Manganese	47	0.025	mg/L	0.05000	48	NR	70-130			
Nickel	0.080	0.00050	mg/L	0.05000	0.033	94	70-130			
Selenium	0.051	0.0025	mg/L	0.05000	0.0032	95	70-130			
Silver	0.040	0.00050	mg/L	0.05000	ND	81	70-130			
Thallium	0.054	0.00050	mg/L	0.05000	0.00032	108	70-130			
Zinc	6.4	4.0	mg/L	0.1000	6.4	43	70-130			M3
Batch 2109243 - E 200.8 (5.4)										
Blank (2109243-BLK1)				Prepared: 09/20/2021 Analyzed: 09/21/2021						
Aluminum	ND	0.040	mg/L							
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Cobalt	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Nickel	0.000037	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Silver	0.00039	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109243 - E 200.8 (5.4)										
LCS (2109243-BS1)				Prepared: 09/20/2021 Analyzed: 09/21/2021						
Aluminum	0.099	0.040	mg/L	0.1000		99	85-115			
Antimony	0.043	0.00050	mg/L	0.05000		86	85-115			
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115			
Barium	0.044	0.00050	mg/L	0.05000		88	85-115			
Beryllium	0.047	0.00025	mg/L	0.05000		95	85-115			
Cadmium	0.044	0.00025	mg/L	0.05000		87	85-115			
Chromium	0.047	0.00050	mg/L	0.05000		95	85-115			
Cobalt	0.047	0.00025	mg/L	0.05000		93	85-115			
Copper	0.047	0.00050	mg/L	0.05000		94	85-115			
Lead	0.044	0.00050	mg/L	0.05000		89	85-115			
Manganese	0.048	0.00025	mg/L	0.05000		96	85-115			
Nickel	0.047	0.00050	mg/L	0.05000		94	85-115			
Selenium	0.045	0.0025	mg/L	0.05000		90	85-115			
Silver	0.045	0.00050	mg/L	0.05000		89	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115			
Zinc	0.10	0.040	mg/L	0.1000		103	85-115			
LCS Dup (2109243-BSD1)				Prepared: 09/20/2021 Analyzed: 09/21/2021						
Aluminum	0.099	0.040	mg/L	0.1000		99	85-115	0.7	20	
Antimony	0.043	0.00050	mg/L	0.05000		86	85-115	0.04	20	
Arsenic	0.048	0.00050	mg/L	0.05000		95	85-115	1	20	
Barium	0.044	0.00050	mg/L	0.05000		89	85-115	0.9	20	
Beryllium	0.047	0.00025	mg/L	0.05000		94	85-115	0.3	20	
Cadmium	0.044	0.00025	mg/L	0.05000		88	85-115	0.4	20	
Chromium	0.048	0.00050	mg/L	0.05000		95	85-115	0.4	20	
Cobalt	0.047	0.00025	mg/L	0.05000		94	85-115	0.9	20	
Copper	0.047	0.00050	mg/L	0.05000		94	85-115	0.4	20	
Lead	0.045	0.00050	mg/L	0.05000		90	85-115	1	20	
Manganese	0.048	0.00025	mg/L	0.05000		96	85-115	0.2	20	
Nickel	0.048	0.00050	mg/L	0.05000		95	85-115	1	20	
Selenium	0.049	0.0025	mg/L	0.05000		98	85-115	8	20	
Silver	0.048	0.00050	mg/L	0.05000		95	85-115	7	20	
Thallium	0.049	0.00050	mg/L	0.05000		98	85-115	0.04	20	
Zinc	0.10	0.040	mg/L	0.1000		104	85-115	0.6	20	

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109243 - E 200.8 (5.4)										
Matrix Spike (2109243-MS1)	**Source: 21I0483-01**			Prepared: 09/20/2021 Analyzed: 09/21/2021						
Aluminum	0.13	0.040	mg/L	0.1000	ND	127	70-130			
Antimony	0.055	0.00050	mg/L	0.05000	0.000096	111	70-130			
Arsenic	0.068	0.00050	mg/L	0.05000	0.0022	132	70-130			M1
Barium	0.066	0.00050	mg/L	0.05000	0.011	111	70-130			
Beryllium	0.064	0.00025	mg/L	0.05000	ND	128	70-130			
Cadmium	0.054	0.00025	mg/L	0.05000	ND	108	70-130			
Chromium	0.061	0.00050	mg/L	0.05000	0.0011	120	70-130			
Cobalt	0.057	0.00025	mg/L	0.05000	ND	114	70-130			
Copper	0.056	0.00050	mg/L	0.05000	0.0010	110	70-130			
Lead	0.065	0.00050	mg/L	0.05000	0.00026	130	70-130			
Manganese	0.062	0.00025	mg/L	0.05000	0.0018	121	70-130			
Nickel	0.056	0.00050	mg/L	0.05000	0.00031	112	70-130			
Selenium	0.070	0.0025	mg/L	0.05000	0.00068	138	70-130			M1
Silver	0.032	0.00050	mg/L	0.05000	0.00016	63	70-130			M2
Thallium	0.065	0.00050	mg/L	0.05000	ND	130	70-130			
Zinc	0.16	0.040	mg/L	0.1000	0.036	126	70-130			
Matrix Spike (2109243-MS2)	**Source: 21I0514-04**			Prepared: 09/20/2021 Analyzed: 09/21/2021						
Aluminum	0.12	0.040	mg/L	0.1000	ND	122	70-130			
Antimony	0.050	0.00050	mg/L	0.05000	ND	101	70-130			
Arsenic	0.062	0.00050	mg/L	0.05000	0.0025	118	70-130			
Barium	0.077	0.00050	mg/L	0.05000	0.026	101	70-130			
Beryllium	0.056	0.00025	mg/L	0.05000	0.000034	112	70-130			
Cadmium	0.050	0.00025	mg/L	0.05000	ND	100	70-130			
Chromium	0.055	0.00050	mg/L	0.05000	0.000042	109	70-130			
Cobalt	0.054	0.00025	mg/L	0.05000	0.00048	107	70-130			
Copper	0.051	0.00050	mg/L	0.05000	ND	102	70-130			
Lead	0.059	0.00050	mg/L	0.05000	ND	119	70-130			
Manganese	2.8	0.0025	mg/L	0.05000	2.7	187	70-130			M3
Nickel	0.053	0.00050	mg/L	0.05000	ND	105	70-130			
Selenium	0.057	0.0025	mg/L	0.05000	0.00025	114	70-130			
Silver	0.035	0.0050	mg/L	0.05000	0.010	49	70-130			M2
Thallium	0.058	0.00050	mg/L	0.05000	ND	116	70-130			
Zinc	0.53	0.040	mg/L	0.1000	0.41	123	70-130			
Batch 2109260 - E 245.1										
Blank (2109260-BLK1)				Prepared & Analyzed: 09/21/2021						
Mercury	ND	0.0010	mg/L							
LCS (2109260-BS1)				Prepared & Analyzed: 09/21/2021						
Mercury	0.0052	0.0010	mg/L	0.005000		104	85-115			
LCS Dup (2109260-BSD1)				Prepared & Analyzed: 09/21/2021						
Mercury	0.0052	0.0010	mg/L	0.005000		104	85-115	0.04	20	
Matrix Spike (2109260-MS1)	**Source: 21I0458-01**			Prepared & Analyzed: 09/21/2021						
Mercury	0.0053	0.0010	mg/L	0.005000	ND	106	70-130			

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109260 - E 245.1										
Matrix Spike Dup (2109260-MSD1)	**Source: 21I0458-01**			Prepared & Analyzed: 09/21/2021						
Mercury	0.0053	0.0010	mg/L	0.005000	ND	107	70-130	0.2	20	
Batch 2109292 - E245.1										
Blank (2109292-BLK1)				Prepared & Analyzed: 09/23/2021						
Mercury	ND	0.0010	mg/L							
LCS (2109292-BS1)				Prepared & Analyzed: 09/23/2021						
Mercury	0.0052	0.0010	mg/L	0.005000		103	85-115			
LCS Dup (2109292-BSD1)				Prepared & Analyzed: 09/23/2021						
Mercury	0.0052	0.0010	mg/L	0.005000		105	85-115	2	20	
Matrix Spike (2109292-MS1)	**Source: 21I0292-01**			Prepared & Analyzed: 09/23/2021						
Mercury	0.0050	0.0010	mg/L	0.005000	ND	101	70-130			
Matrix Spike (2109292-MS2)	**Source: 21I0294-01**			Prepared & Analyzed: 09/23/2021						
Mercury	0.0051	0.0010	mg/L	0.005000	ND	102	70-130			
Matrix Spike Dup (2109292-MSD1)	**Source: 21I0292-01**			Prepared & Analyzed: 09/23/2021						
Mercury	0.0050	0.0010	mg/L	0.005000	ND	101	70-130	0.09	20	
Matrix Spike Dup (2109292-MSD2)	**Source: 21I0294-01**			Prepared & Analyzed: 09/23/2021						
Mercury	0.0041	0.0010	mg/L	0.005000	ND	82	70-130	21	20	M2, R9

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109193 - SM2540 C										
Duplicate (2109193-DUP1)	**Source: 21I0390-01**			Prepared: 09/16/2021 Analyzed: 09/20/2021						
Total Dissolved Solids (Residue, Filterable)	570	20	mg/L		560			1	5	
Duplicate (2109193-DUP2)	**Source: 21I0390-02**			Prepared: 09/16/2021 Analyzed: 09/20/2021						
Total Dissolved Solids (Residue, Filterable)	11000	20	mg/L		10000			3	5	
Batch 2109225 - SW9045D										
Duplicate (2109225-DUP1)	**Source: 21I0471-02**			Prepared & Analyzed: 09/16/2021						
pH (pH Units)	3.1		-		3.1			0.3	200	H5
Temperature (°C)	22		-		21			0.5	200	H5
Batch 2109226 - E180.1										
Duplicate (2109226-DUP1)	**Source: 21I0310-01**			Prepared & Analyzed: 09/16/2021						
Turbidity	0.63	0.10	NTU		0.63			0	10	
Batch 2109236 - SM2540 D										
Duplicate (2109236-DUP1)	**Source: 21I0309-01**			Prepared: 09/20/2021 Analyzed: 09/21/2021						
Total Suspended Solids	ND	10	mg/L		ND				5	Q9
Duplicate (2109236-DUP2)	**Source: 21I0483-01**			Prepared: 09/20/2021 Analyzed: 09/21/2021						
Total Suspended Solids	ND	10	mg/L		ND				5	Q9
Batch 2109262 - SM2320B										
Blank (2109262-BLK1)				Prepared & Analyzed: 09/21/2021						
Alkalinity, Bicarbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Carbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Hydroxide (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Phenolphthalein (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Total (As CaCO3)	ND	2.0	mg/L							
LCS (2109262-BS1)				Prepared & Analyzed: 09/21/2021						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		101	90-110			
LCS Dup (2109262-BSD1)				Prepared & Analyzed: 09/21/2021						
Alkalinity, Total (As CaCO3)	250	2.0	mg/L	250.0		100	90-110	0.8	10	
Matrix Spike (2109262-MS1)	**Source: 21I0483-07**			Prepared: 09/21/2021 Analyzed: 09/22/2021						
Alkalinity, Total (As CaCO3)	280	2.0	mg/L	250.0	40	96	70-130			
Matrix Spike Dup (2109262-MSD1)	**Source: 21I0483-07**			Prepared & Analyzed: 09/21/2021						
Alkalinity, Total (As CaCO3)	290	2.0	mg/L	250.0	40	100	70-130	4	10	
Batch 2109268 - SM2510 B										
LCS (2109268-BS1)				Prepared & Analyzed: 09/22/2021						
Conductivity	150	0.10	µmhos/cm	141.2		105	0-200			
LCS Dup (2109268-BSD1)				Prepared & Analyzed: 09/22/2021						
Conductivity	150	0.10	µmhos/cm	141.2		109	0-200	4	200	

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109268 - SM2510 B										
Duplicate (2109268-DUP1)		**Source: 21I0487-01**		Prepared & Analyzed: 09/22/2021						
Conductivity	420	0.10	µmhos/cm		410			2	10	
Duplicate (2109268-DUP2)		**Source: 21I0487-02**		Prepared & Analyzed: 09/22/2021						
Conductivity	270	0.10	µmhos/cm		270			2	10	
Batch 2109278 - SM4500-NH3 B,C										
Blank (2109278-BLK1)				Prepared & Analyzed: 09/22/2021						
Nitrogen, Ammonia (As N)	ND	0.50	mg/L							
LCS (2109278-BS1)				Prepared & Analyzed: 09/22/2021						
Nitrogen, Ammonia (As N)	4.9	0.50	mg/L	5.000		97	90-110			
LCS Dup (2109278-BSD1)				Prepared & Analyzed: 09/22/2021						
Nitrogen, Ammonia (As N)	4.9	0.50	mg/L	5.000		98	90-110	0.9	10	
Matrix Spike (2109278-MS1)		**Source: 21I0483-01**		Prepared & Analyzed: 09/22/2021						
Nitrogen, Ammonia (As N)	4.9	0.50	mg/L	5.000	0.090	96	75-120			
Matrix Spike (2109278-MS2)		**Source: 21I0514-04**		Prepared & Analyzed: 09/22/2021						
Nitrogen, Ammonia (As N)	4.8	0.50	mg/L	5.000	0.13	94	75-120			
Matrix Spike Dup (2109278-MSD1)		**Source: 21I0483-01**		Prepared & Analyzed: 09/22/2021						
Nitrogen, Ammonia (As N)	4.9	0.50	mg/L	5.000	0.090	95	75-120	0.9	20	
Matrix Spike Dup (2109278-MSD2)		**Source: 21I0514-04**		Prepared & Analyzed: 09/22/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000	0.13	97	75-120	4	20	

Client: Arizona Minerals Inc.
Project: Groundwater
Work Order: 21I0458
Date Received: 09/15/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2109181 - E300.0 (2.1)										
Blank (2109181-BLK1)				Prepared & Analyzed: 09/15/2021						
Chloride	ND	1.0	mg/L							
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (2109181-BS1)				Prepared & Analyzed: 09/15/2021						
Chloride	12	1.0	mg/L	12.50		95	90-110			
Fluoride	2.0	0.50	mg/L	2.000		98	90-110			
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		97	90-110			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		97	90-110			
Sulfate	13	5.0	mg/L	12.50		105	90-110			
LCS Dup (2109181-BSD1)				Prepared & Analyzed: 09/15/2021						
Chloride	12	1.0	mg/L	12.50		95	90-110	0.4	10	
Fluoride	2.0	0.50	mg/L	2.000		98	90-110	0.5	10	
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000		96	90-110	0.2	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500		97	90-110	0.3	10	
Sulfate	13	5.0	mg/L	12.50		104	90-110	0.3	10	
Matrix Spike (2109181-MS1)	**Source: 21I0443-06**			Prepared: 09/15/2021 Analyzed: 09/16/2021						
Chloride	1200	100	mg/L	1250	ND	97	80-120			
Fluoride	170	50	mg/L	200.0	ND	87	80-120			
Nitrogen, Nitrate (As N)	630	50	mg/L	500.0	140	98	80-120			
Nitrogen, Nitrite (As N)	240	10	mg/L	250.0	ND	96	80-120			
Sulfate	1500	500	mg/L	1250	240	104	80-120			
Matrix Spike (2109181-MS2)	**Source: 21I0451-02**			Prepared: 09/15/2021 Analyzed: 09/22/2021						
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.24	93	80-120			
Sulfate	16	5.0	mg/L	12.50	6.2	75	80-120			M2
Matrix Spike (2109181-MS3)	**Source: 21I0443-08**			Prepared: 09/15/2021 Analyzed: 09/22/2021						
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.22	94	80-120			
Sulfate	13	5.0	mg/L	12.50	3.4	75	80-120			M2
Matrix Spike Dup (2109181-MSD1)	**Source: 21I0443-06**			Prepared: 09/15/2021 Analyzed: 09/16/2021						
Chloride	1200	100	mg/L	1250	ND	97	80-120	0.2	10	
Fluoride	170	50	mg/L	200.0	ND	87	80-120	0.4	10	
Nitrogen, Nitrate (As N)	630	50	mg/L	500.0	140	98	80-120	0.1	10	
Nitrogen, Nitrite (As N)	240	10	mg/L	250.0	ND	97	80-120	0.6	10	
Sulfate	1500	500	mg/L	1250	240	98	80-120	5	10	
Matrix Spike Dup (2109181-MSD2)	**Source: 21I0451-02**			Prepared: 09/15/2021 Analyzed: 09/22/2021						
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.24	94	80-120	0.6	10	
Sulfate	15	5.0	mg/L	12.50	6.2	70	80-120	5	10	M2
Matrix Spike Dup (2109181-MSD3)	**Source: 21I0443-08**			Prepared: 09/15/2021 Analyzed: 09/22/2021						
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	0.22	94	80-120	0.03	10	
Sulfate	13	5.0	mg/L	12.50	3.4	77	80-120	2	10	M2

TURNER
LABORATORIES INC.

2445 N. Coyot e Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

21I0458
TURNER WORK ORDER # ~~x~~ DATE 9·15·21 PAGE 1 o 2

PROJECT NAME Hermosa # ~~x~~
CONTACT NAME Sheena Leon & Kara Haas
COMPANY NAME South32
ADDRESS 2210 E Ft Lowell Rd
CITY Tucson STATE AZ ZIP CODE 85719
PHONE Kara Haas ~~FAX~~ (505) 947-1738
SAMPLER'S SIGNATURE

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	APLE MAT	NUMBER OF CONTAINERS	See attachment
Poc 2-09142021	9·14·21	10:15		Gw	5	✓
mw 3-09142021	9·14·21	10:25		Gw	5	✓

JL 9·15·21

JL 9·15·21

1. RELINQUISHED BY:
Signature
Jaime Lopez
Printed Name
South 32
Firm
9·15·21 9:45
Date/Time

2. RECEIVED BY:
Signature
Casey Spencer
Printed Name
WWC
Firm
11:30am 9/15/21
Date/Time

3. RELINQUISHED BY:
Signature
Casey Spencer
Printed Name
WWC
Firm
12:45pm 9/15/21
Date/Time

4. RECEIVED BY:
Signature
Leonard McCoy
Printed Name
TURNER LABORATORIES, INC.
Firm
9/15/21 1245
Date/Time

TURNAROUND REQUIREMENTS:
✓ Standard (approx.10 days)*
___ Next day ___ 2 Day
___ 5 Day*
✓ Email Preliminary Results To: Sheena Leon Kara Haas

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (Includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ___ Y ___ N
P.O. # ___
Bill to: ___

SAMPLE RECEIPT:
Total Containers 10
Temperature 9.1
☑ Wet Ice ☐ Blue Ice

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☑
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☑	Appropriate Head Space ☑
Mail ADEQ Forms: ☐ Yes ☐ No	COC/Labels Agree ☑	Received Within Hold Time ☑

Groundwater Suite

	LABORATORY		
Analyte	**Total**	**Dissolved**	**Other**
Metals			
Aluminum	X	X	
Antimony	X	X	
Arsenic	X	X	
Barium	X	X	
Beryllium	X	X	
Boron	X	X	
Cadmium	X	X	
Chromium	X	X	
Cobalt	X	X	
Copper	X	X	
Iron	X	X	
Lead	X	X	
Manganese	X	X	
Mercury	X	X	
Nickel	X	X	
Selenium	X	X	
Silver	X	X	
Thallium	X	X	
Zinc	X	X	
Major Cations			
Ammonium	X		
Calcium	X	X	
Magnesium	X	X	
Potassium	X	X	
Sodium	X	X	
Iron	X	X	
Hardness	X		
Major Anions			
Total Alkalinity	X		
Acidity			
Chloride	X	X	
Fluoride	X	X	
Nitrate – Nitrite as N	X	X	
Nitrite - N	X	X	
Silica	X	X	
Sulfate	X	X	
Sulfide			
Parameters			
Total Dissolved Solids		X	
Total Suspended Solids	X		

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-170838-1
Client Project/Site: 21I0458

For:
Turner Laboratories, Inc.
2445 North Coyote Drive
Suite 104
Tucson, Arizona 85745

Attn: Elizabeth Kasik

Ken Baker

Authorized for release by:
9/22/2021 6:32:30 AM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Table of Contents

Definitions/Glossary

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Job ID: 550-170838-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Job ID: 550-170838-1

Job ID: 550-170838-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-170838-1

Comments
No additional comments.

Receipt
The samples were received on 9/17/2021 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

Receipt Exceptions
5 day rush TAT requested.

21I0458-01 (550-170838-1) and 21I0458-02 (550-170838-2)

General Chemistry
Method SM 4500 CN I: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 680-685799 and analytical batch 680-685927 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Job ID: 550-170838-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-170838-1	21I0458-01	Water	09/14/21 10:15	09/17/21 09:45
550-170838-2	21I0458-02	Water	09/14/21 10:25	09/17/21 09:45

Detection Summary

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Job ID: 550-170838-1

Client Sample ID: 21I0458-01 Lab Sample ID: 550-170838-1

eNl et l .l 8.,l c13

Client Sample ID: 21I0458-02 Lab Sample ID: 550-170838-2

eNl et l .l 8.,l c13

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Job ID: 550-170838-1

Client Sample ID: 21I0458-01

Lab Sample ID: 550-170838-1

Date Collected: 09/14/21 10:15

Matrix: Water

Date Received: 09/17/21 09:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND	E8 M2	0.010	0.010	mg/L		09/21/21 12:13	09/22/21 08:24	1

Client Sample ID: 21I0458-02

Lab Sample ID: 550-170838-2

Date Collected: 09/14/21 10:25

Matrix: Water

Date Received: 09/17/21 09:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND	E8	0.010	0.010	mg/L		09/21/21 12:13	09/22/21 08:24	1

QC Sample Results

Method: SM 4500 CN I - Cyanide, Weak Acid Dissociable

Lab Sample ID: MB 680-685799/1-A
Matrix: Water
Analysis Batch: 685927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685799

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Weak Acid Dissociable	ND	E8	0.010	0.010	mg/L		09/21/21 10:53	09/22/21 08:24	1

Lab Sample ID: LCS 680-685799/2-A
Matrix: Water
Analysis Batch: 685927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685799

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Weak Acid Dissociable			0.0500	0.0489		mg/L		98	85 - 115		

Lab Sample ID: 550-170838-1 MS
Matrix: Water
Analysis Batch: 685927

Client Sample ID: 21I0458-01
Prep Type: Total/NA
Prep Batch: 685799

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Weak Acid Dissociable	ND	E8 M2	0.0500	0.0392	M2	mg/L		78	85 - 115		

Lab Sample ID: 550-170838-1 MSD
Matrix: Water
Analysis Batch: 685927

Client Sample ID: 21I0458-01
Prep Type: Total/NA
Prep Batch: 685799

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Weak Acid Dissociable	ND	E8 M2	0.0500	0.0410	M2	mg/L		82	85 - 115	5	30

QC Association Summary

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Job ID: 550-170838-1

General Chemistry

Prep Batch: 685799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-170838-1	21I0458-01	Total/NA	Water	SM 4500 CN I	
550-170838-2	21I0458-02	Total/NA	Water	SM 4500 CN I	
MB 680-685799/1-A	Method Blank	Total/NA	Water	SM 4500 CN I	
LCS 680-685799/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN I	
550-170838-1 MS	21I0458-01	Total/NA	Water	SM 4500 CN I	
550-170838-1 MSD	21I0458-01	Total/NA	Water	SM 4500 CN I	

Analysis Batch: 685927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-170838-1	21I0458-01	Total/NA	Water	SM 4500 CN I	685799
550-170838-2	21I0458-02	Total/NA	Water	SM 4500 CN I	685799
MB 680-685799/1-A	Method Blank	Total/NA	Water	SM 4500 CN I	685799
LCS 680-685799/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN I	685799
550-170838-1 MS	21I0458-01	Total/NA	Water	SM 4500 CN I	685799
550-170838-1 MSD	21I0458-01	Total/NA	Water	SM 4500 CN I	685799

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Lab Chronicle

Client Sample ID: 21I0458-01

Date Collected: 09/14/21 10:15
Date Received: 09/17/21 09:45

Lab Sample ID: 550-170838-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM 4500 CN I			685799	09/21/21 12:13	AE	TAL SAV
Total/NA	Analysis	SM 4500 CN I		1	685927	09/22/21 08:24	NVF	TAL SAV

Client Sample ID: 21I0458-02

Date Collected: 09/14/21 10:25
Date Received: 09/17/21 09:45

Lab Sample ID: 550-170838-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM 4500 CN I			685799	09/21/21 12:13	AE	TAL SAV
Total/NA	Analysis	SM 4500 CN I		1	685927	09/22/21 08:24	NVF	TAL SAV

Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Laboratory: Eurofins TestAmerica, Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-22
Alaska (UST)	State	17-016	09-22-22
ANAB	Dept. of Defense ELAP	L2463	09-22-22
ANAB	ISO/IEC 17025	L2463.01	09-22-22
Arkansas DEQ	State	19-015-0	02-01-22
California	State	2939	06-30-22
Connecticut	State	PH-0161	03-31-23
Florida	NELAP	E87052	06-30-22
Georgia	State	E87052	06-30-22
Georgia (DW)	State	803	06-30-22
Guam	State	19-007R	04-17-22
Hawaii	State	<cert No.>	06-30-22
Illinois	NELAP	200022	11-30-21
Indiana	State	C-GA-02	06-30-22
Iowa	State	353	06-30-22
Kentucky (UST)	State	NA	06-30-22
Louisiana	NELAP	02011	06-30-22
Louisiana (DW)	State	LA009	12-31-21
Maine	State	GA00006	09-25-22
Maryland	State	250	12-31-21
Massachusetts	State	M-GA006	06-30-22
Michigan	State	9925	03-05-22
Mississippi	State	<cert No.>	06-30-22
Nebraska	State	NE-OS-7-04	06-30-22
New Jersey	NELAP	GA769	06-30-22
New Mexico	State	GA00006	06-30-22
New York	NELAP	10842	04-01-22
North Carolina (DW)	State	13701	07-01-22
North Carolina (WW/SW)	State	269	12-31-21
Pennsylvania	NELAP	68-00474	06-30-22
Puerto Rico	State	GA00006	01-01-22
South Carolina	State	98001	06-30-22
Tennessee	State	02961	06-30-22
Texas	NELAP	T1047004185-19-14	11-30-21
Texas	TCEQ Water Supply	T104704185	06-30-22
USDA	US Federal Programs	P330-18-00313	09-03-24
Virginia	NELAP	10509	06-29-22
Washington	State	C805	06-10-22
Wisconsin	State	999819810	08-31-22
Wyoming	State	8TMS-L	06-30-22

Method Summary

Client: Turner Laboratories, Inc.
Project/Site: 21I0458

Job ID: 550-170838-1

Method	Method Description	Protocol	Laboratory
SM 4500 CN I	Cyanide, Weak Acid Dissociable	SM	TAL SAV
SM 4500 CN I	Cyanide, Distillation for Weak Acid Dissociable	SM	TAL SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

SUBCONTRACT ORDER

Turner Laboratories, Inc.

170838 **2110458**

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Elizabeth Kasik

RECEIVING LABORATORY:

TestAmerica Phoenix
4625 East Cotton Center Boulevard Suite 189
Phoenix, AZ 85540
Phone :(602) 437-3340
Fax:
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
-01 **Sample ID: 2110458-01 Drinking Water Sampled:09/14/2021 10:15**		[redacted]	
Cyanide WAD	09/28/2021 10:15		
Cyanide	09/28/2021 10:15		
Containers Supplied:			
-02 **Sample ID: 2110458-02 Drinking Water Sampled:09/14/2021 10:25**		[redacted]	
Cyanide WAD	09/28/2021 10:25		
Cyanide	09/28/2021 10:25		
Containers Supplied:			

550-170838 Chain of Custody

1.0°C ICE

	9/16/21 1600	UPS	9/16/21 1600
Released By	Date	Received By	Date
UPS NDA			ETA PHX 9/17/21 0945
Released By	Date	Received By	Date

Page 1 of 1

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM Baker, Ken	Carrier Tracking No(s)	COC No 550-31953.1
Client Contact Shipping/Receiving	Phone	E-Mail Ken.Baker@Eurofinset.com	State of Origin Arizona	Page Page 1 of 1
Company TestAmerica Laboratories, Inc		Accreditations Required (See note) State Program - Arizona		Job # 550-170838-1
Address 5102 LaRoche Avenue,	**Due Date Requested:** 9/23/2021			
City Savannah	**TAT Requested (days):**			
State, Zip GA, 31404				
Phone 912-354-7858(Tel) 912-352-0165(Fax)	PO #			
Email	WO #			
Project Name 2110458	Project # 55003219			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_CN_I/4500_CN_I_Prep Cyanide, Weak Acid Dissociable	Total Number of containers	Special Instructions/Note:
			Preservation Code						
2110458-01 (550-170838-1)	9/14/21	10:15 Arizona		Water			X	1	
2110458-02 (550-170838-2)	9/14/21	10:25 Arizona		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by Ene	Date/Time 09-17-21 15:15	Company TA-PHX	Received by Fedex	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time 9-18-21/1010	Company SAV
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 4.3/3.7

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Turner Laboratories, Inc.

Job Number: 550-170838-1

Login Number: 170838
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.

Login Sample Receipt Checklist

Client: Turner Laboratories, Inc.

Job Number: 550-170838-1

Login Number: 170838
List Number: 2
Creator: Mooken, Darmal

List Source: Eurofins TestAmerica, Savannah
List Creation: 09/18/21 04:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: September 14, 2021
Sample Received: September 17, 2021
Analysis Completed: October 25, 2021

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Gross Beta Activity Method 900.0 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
21I0458-01	3.1 ± 0.9	< 17.5	1.0 ± 0.2	1.1 ± 0.4	2.1 ± 0.4

Date of Analysis	9/20/2021	9/21/2021	10/15/2021	10/15/2021	10/15/2021

Robert L. Metzger, Ph.D., C.H.P.
Laboratory License Number AZ0462

10/25/2021
Date

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ____________

PWS Name: ____________

Sample Date: September 14, 2021

Sample Time: 10:15 (24 hour clock)

Owner/Contact Person: ____________

Owner/Contact Fax Number: ____________

Owner/Contact Phone Number: ____________

Sample Collection Point

☐ EPDS # ____________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ____________

Date Q2 collected: ____________

Date Q3 collected: ____________

Date Q4 collected: ____________

RADIOCHEMICAL ANALYSIS

\>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	9/20/2021	3.1 ± 0.9	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	10/15/2021	2.1 ± 0.4	
GammaRay HPGE		1 pCi/L	Radium 226	4020	10/15/2021	1.0 ± 0.2	
GammaRay HPGE		1 pCi/L	Radium 228	4030	10/15/2021	1.1 ± 0.4	

LABORATORY INFORMATION

\>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67309

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 2110458-01

Authorized Signature:

Date Public Water System Notified: ____________

DWAR 6: 11/2007

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ____________

PWS Name: ____________

Sample Date: September 14, 2021

Sample Time: 10:15 (24 hour clock)

Owner/Contact Person: ____________

Owner/Contact Fax Number: ____________

Owner/Contact Phone Number: ____________

Sample Collection Point

☐ EPDS # ____________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ____________

Date Q2 collected: ____________

Date Q3 collected: ____________

Date Q4 collected: ____________

RADIOCHEMICAL ANALYSIS

\>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
900	4 mrem	4 pCi/L	Gross Beta	4100	9/21/2021	< 4 mrem	
906	20,000 pCi/L	1,000 pCi/L	Tritium	4102			
		10 pCi/L	Strontium-89	4172			
	8 pCi/L	2 pCi/L	Strontium-90	4174			
		1 pCi/L	Iodine-131	4264			
		10 pCi/L	Cesium-134	4270			

LABORATORY INFORMATION

\>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67309

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 2110458-01

Authorized Signature:

Date Public Water System Notified: ____________

DWAR 6A: 11/2007

Radiation Safety Engineering, Inc.

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Turner Laboratories
2445 N. Coyote Drive, Ste. 104
Tucson, AZ 85745

Sampling Date: September 14, 2021
Sample Received: September 17, 2021
Analysis Completed: October 25, 2021

Sample ID	Gross Alpha Activity Method 600/00-02 (pCi/L)	Gross Beta Activity Method 900.0 (pCi/L)	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
21I0458-02	4.1 ± 0.9	< 17.3	< 0.4	0.7 ± 0.4	0.7 ± 0.4

Date of Analysis	9/20/2021	9/21/2021	10/15/2021	10/15/2021	10/15/2021

Robert L. Metzger, Ph.D., C.H.P. — 10/25/2021
Laboratory License Number AZ0462 — Date

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 ______________ PWS Name: ______________

September 14, 2021 Sample Date

10:25 Sample Time (24 hour clock)

______________ Owner/Contact Person

______________ Owner/Contact Fax Number

______________ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # ______________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: ______________

Date Q2 collected: ______________

Date Q3 collected: ______________

Date Q4 collected: ______________

RADIOCHEMICAL ANALYSIS

\>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
	15 pCi/L		Adjusted Gross Alpha	4000			
600/00-02		3 pCi/L	Gross Alpha	4002	9/20/2021	4.1 ± 0.9	
7500 - Rn			Radon	4004			
ASTM D6239	30 µg/L	1 µg/L	Combined Uranium	4006		µg/L	
			Uranium 234	4007			
			Uranium 235	4008			
			Uranium 238	4009			
	5 pCi/L	1 pCi/L	Combined Radium (226,228)	4010	10/15/2021	0.7 ± 0.4	
GammaRay HPGE		1 pCi/L	Radium 226	4020	10/15/2021	< 0.4	
GammaRay HPGE		1 pCi/L	Radium 228	4030	10/15/2021	0.7 ± 0.4	

LABORATORY INFORMATION

\>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67310

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 2110458-02

Authorized Signature: Robt L Metzger

Date Public Water System Notified: ______________

DWAR 6: 11/2007

Arizona Department of Environmental Quality

Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only

PWS ID#: AZ04 __________

PWS Name: __________

September 14, 2021 Sample Date

10:25 Sample Time (24 hour clock)

__________ Owner/Contact Person

__________ Owner/Contact Fax Number

__________ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # __________

Compliance Sample Type:

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: __________

Date Q2 collected: __________

Date Q3 collected: __________

Date Q4 collected: __________

RADIOCHEMICAL ANALYSIS

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analyses Run Date	Result	Exceed MCL
900	4 mrem	4 pCi/L	Gross Beta	4100	9/21/2021	< 4 mrem	
906	20,000 pCi/L	1,000 pCi/L	Tritium	4102			
		10 pCi/L	Strontium-89	4172			
	8 pCi/L	2 pCi/L	Strontium-90	4174			
		1 pCi/L	Iodine-131	4264			
		10 pCi/L	Cesium-134	4270			

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67310

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P. (480) 897-9459

Comments: 2110458-02

Authorized Signature:

Date Public Water System Notified:

DWAR 6A: 11/2007

SUBCONTRACT ORDER

Turner Laboratories, Inc.

21I0458

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Elizabeth Kasik

RECEIVING LABORATORY:

Radiation Safety Engineering, Inc.
3245 N. Washington St.
Chandler, AZ 85225-1121
Phone :(480) 897-9459
Fax: (480) 892-5446
Please CC Kevin Brim Kbrim@turnerlabs.com

Analysis	Expires	Laboratory ID	Comments
Sample ID: 21I0458-01 Drinking Water Sampled:09/14/2021 10:15		[redacted]	
Radiochemistry, Gross Alpha Beta	03/13/2022 10:15		
Radiochemistry, Radium 226/228 Add on	10/14/2021 10:15		
Containers Supplied:			67309
Sample ID: 21I0458-02 Drinking Water Sampled:09/14/2021 10:25		[redacted]	
Radiochemistry, Radium 226/228 Add on	10/14/2021 10:25		
Radiochemistry, Gross Alpha Beta	03/13/2022 10:25		
Containers Supplied:			67310

10/14/2021 16:17

Released By Date Received By Date

10-14-21 4:30

Released By Date Received By Date