TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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Tel: (602)437-3340

TestAmerica Job ID: 550-88335-2
TestAmerica Sample Delivery Group: Cholla
Client Project/Site: Four Corners CCR

For:
Arizona Public Service Company
4801 Cholla Lake Rd
Joseph City, Arizona 86032

Attn: Doug Lavarnway

Authorized for release by:
9/29/2017 7:52:18 AM

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LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 10
QC Sample Results 21
QC Association Summary 26
Lab Chronicle 31
Certification Summary 37
Method Summary 38
Chain of Custody 39
Receipt Checklists 41

Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D5	Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample.

Metals

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Job ID: 550-88335-2

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-88335-2

Comments
No additional comments.

Receipt
The samples were received on 8/18/2017 12:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.6º C, 0.8º C, 0.9º C and 0.9º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-88335-1	FC-CCR-MW7-81717	Water	08/17/17 11:17	08/18/17 12:40
550-88335-2	FC-CCR-MW49A-81717	Water	08/17/17 12:23	08/18/17 12:40
550-88335-3	FC-CCR-MW60-81717	Water	08/17/17 10:32	08/18/17 12:40
550-88335-4	FC-CCR-MW61-81717	Water	08/17/17 09:24	08/18/17 12:40
550-88335-5	FC-CCR-MW62-81617	Water	08/16/17 10:34	08/18/17 12:40
550-88335-6	FC-CCR-MW63-81617	Water	08/16/17 11:06	08/18/17 12:40
550-88335-7	FC-CCR-MW64-81617	Water	08/16/17 11:49	08/18/17 12:40
550-88335-8	FC-CCR-MW65-81617	Water	08/16/17 09:09	08/18/17 12:40
550-88335-9	FC-CCR-FD01-81617	Water	08/16/17 09:09	08/18/17 12:40
550-88335-10	FC-CCR-MW66-81617	Water	08/16/17 09:59	08/18/17 12:40
550-88335-11	FC-CCR-MW67-81617	Water	08/16/17 14:17	08/18/17 12:40
550-88335-12	FC-CCR-MW68-81617	Water	08/16/17 13:46	08/18/17 12:40
550-88335-13	FC-CCR-MW69-81617	Water	08/16/17 13:10	08/18/17 12:40
550-88335-14	FC-CCR-MW70-81617	Water	08/16/17 12:21	08/18/17 12:40
550-88335-15	FC-CCR-MW71-81717	Water	08/17/17 08:02	08/18/17 12:40
550-88335-16	FC-CCR-MW72-81717	Water	08/17/17 07:15	08/18/17 12:40
550-88335-17	FC-CCR-FD02-81717	Water	08/17/17 07:15	08/18/17 12:40
550-88335-18	FC-CCR-MW73-81717	Water	08/17/17 08:34	08/18/17 12:40
550-88335-19	FC-CCR-MW75-81717	Water	08/17/17 10:01	08/18/17 12:40

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-81717 — Lab Sample ID: 550-88335-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.96		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.015	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Chromium	0.0047	D1	0.0040	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0022	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.013	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW49A-81717 — Lab Sample ID: 550-88335-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	1.1		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.020	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0029	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.037	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.0014	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW60-81717 — Lab Sample ID: 550-88335-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	7.4	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.86		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.017	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00082	D1	0.00040	mg/L	4		200.8 LL	Total/NA
Cobalt	0.30	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.17	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW61-81717 — Lab Sample ID: 550-88335-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.4		0.40	mg/L	1		300.0	Total/NA
Lithium	0.41		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.014	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00092	D1	0.00040	mg/L	4		200.8 LL	Total/NA
Cobalt	0.015	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.078	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW62-81617 — Lab Sample ID: 550-88335-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.6		0.40	mg/L	1		300.0	Total/NA
Barium	0.026	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0044	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0025	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW63-81617 — Lab Sample ID: 550-88335-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.1		0.40	mg/L	1		300.0	Total/NA
Barium	0.019	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0064	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0025	D1	0.0020	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW64-81617 — Lab Sample ID: 550-88335-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.5		0.40	mg/L	1		300.0	Total/NA
Barium	0.015	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0075	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW65-81617 — Lab Sample ID: 550-88335-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Barium	0.015	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0077	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD01-81617 — Lab Sample ID: 550-88335-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Barium	0.012	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0084	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW66-81617 — Lab Sample ID: 550-88335-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	25	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.36		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0020	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.020	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0078	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.022	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.00043	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW67-81617 — Lab Sample ID: 550-88335-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	22	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.47		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.020	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0043	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.037	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.016	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.00062	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW68-81617 — Lab Sample ID: 550-88335-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	11	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.38		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0069	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0074	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0026	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0068	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.25	D1	0.0020	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW68-81617 (Continued) — Lab Sample ID: 550-88335-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.00093	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW69-81617 — Lab Sample ID: 550-88335-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	17	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.44		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0063	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.015	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0041	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.017	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.014	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW70-81617 — Lab Sample ID: 550-88335-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.2	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.35		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0073	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.012	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0072	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0083	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.17	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW71-81717 — Lab Sample ID: 550-88335-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.35		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0060	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0093	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.21	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW72-81717 — Lab Sample ID: 550-88335-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.42		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.0077	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0025	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.10	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.0010	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD02-81717 — Lab Sample ID: 550-88335-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.41		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0027	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0080	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0026	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.10	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.0010	D1	0.00040	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW73-81717 — Lab Sample ID: 550-88335-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lithium	0.28		0.20		mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.024	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Cobalt	0.0066	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0029	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Selenium	0.018	D1	0.0020		mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW75-81717 — Lab Sample ID: 550-88335-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lithium	0.48		0.20		mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.018	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Cadmium	0.0020	D1	0.00040		mg/L	4		200.8 LL	Total/NA
Cobalt	0.045	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Lead	0.0032	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Molybdenum	0.17	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Selenium	0.0021	D1	0.0020		mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-81717

Lab Sample ID: 550-88335-1
Date Collected: 08/17/17 11:17
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80	mg/L			08/25/17 02:52	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 02:20	1
Lithium	**0.96**		0.20	mg/L		08/29/17 10:20	09/03/17 02:20	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:24	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:24	4
Barium	**0.015**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:24	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:24	4
Chromium	**0.0047**	**D1**	0.0040	mg/L		08/25/17 10:43	09/27/17 17:24	4
Cobalt	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:24	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:24	4
Molybdenum	**0.0022**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:24	4
Selenium	**0.013**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:24	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:24	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:37	1

Client Sample ID: FC-CCR-MW49A-81717

Lab Sample ID: 550-88335-2
Date Collected: 08/17/17 12:23
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	4.0	mg/L			08/25/17 05:37	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 02:26	1
Lithium	**1.1**		0.20	mg/L		08/29/17 10:20	09/03/17 02:26	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:31	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:31	4
Barium	**0.020**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:31	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:31	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:31	4
Cobalt	**0.0029**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:31	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:31	4
Molybdenum	**0.037**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:31	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:31	4
Thallium	**0.0014**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 17:31	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW49A-81717

Lab Sample ID: 550-88335-2
Date Collected: 08/17/17 12:23
Matrix: Water
Date Received: 08/18/17 12:40

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:38	1

Client Sample ID: FC-CCR-MW60-81717

Lab Sample ID: 550-88335-3
Date Collected: 08/17/17 10:32
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**7.4**	**D1**	0.80	mg/L			08/25/17 06:32	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 02:32	1
Lithium	**0.86**		0.20	mg/L		08/29/17 10:20	09/03/17 02:32	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:33	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:33	4
Barium	**0.017**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:33	4
Cadmium	**0.00082**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 17:33	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:33	4
Cobalt	**0.30**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:33	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:33	4
Molybdenum	**0.17**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:33	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:33	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:33	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:40	1

Client Sample ID: FC-CCR-MW61-81717

Lab Sample ID: 550-88335-4
Date Collected: 08/17/17 09:24
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.4**		0.40	mg/L			08/25/17 08:21	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 02:37	1
Lithium	**0.41**		0.20	mg/L		08/29/17 10:20	09/03/17 02:37	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:38	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:38	4
Barium	**0.014**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:38	4
Cadmium	**0.00092**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 17:38	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW61-81717

Lab Sample ID: 550-88335-4
Date Collected: 08/17/17 09:24
Matrix: Water
Date Received: 08/18/17 12:40

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:38	4
Cobalt	**0.015**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:38	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:38	4
Molybdenum	**0.078**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:38	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:38	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:38	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:41	1

Client Sample ID: FC-CCR-MW62-81617

Lab Sample ID: 550-88335-5
Date Collected: 08/16/17 10:34
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.6**		0.40	mg/L			08/25/17 09:16	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 02:49	1
Lithium	ND		0.20	mg/L		08/29/17 10:20	09/03/17 02:49	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:41	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:41	4
Barium	**0.026**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:41	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:41	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:41	4
Cobalt	**0.0044**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:41	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:41	4
Molybdenum	**0.0025**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:41	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:41	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:41	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:43	1

Client Sample ID: FC-CCR-MW63-81617

Lab Sample ID: 550-88335-6
Date Collected: 08/16/17 11:06
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.1**		0.40	mg/L			08/25/17 10:11	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW63-81617

Lab Sample ID: 550-88335-6
Date Collected: 08/16/17 11:06
Matrix: Water
Date Received: 08/18/17 12:40

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 02:55	1
Lithium	ND		0.20	mg/L		08/29/17 10:20	09/03/17 02:55	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:43	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:43	4
Barium	**0.019**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:43	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:43	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:43	4
Cobalt	**0.0064**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:43	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:43	4
Molybdenum	**0.0025**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:43	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:43	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:43	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:44	1

Client Sample ID: FC-CCR-MW64-81617

Lab Sample ID: 550-88335-7
Date Collected: 08/16/17 11:49
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.5**		0.40	mg/L			08/25/17 11:06	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:01	1
Lithium	ND		0.20	mg/L		08/29/17 10:20	09/03/17 03:01	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:48	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:48	4
Barium	**0.015**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:48	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:48	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:48	4
Cobalt	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:48	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:48	4
Molybdenum	**0.0075**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:48	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:48	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:48	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:46	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW65-81617

Lab Sample ID: 550-88335-8
Date Collected: 08/16/17 09:09
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**		0.40	mg/L			08/25/17 12:01	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:03	1
Lithium	ND		0.20	mg/L		08/29/17 10:20	09/03/17 03:03	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:50	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:50	4
Barium	**0.015**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:50	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:50	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:50	4
Cobalt	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:50	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:50	4
Molybdenum	**0.0077**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:50	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:50	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:50	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:48	1

Client Sample ID: FC-CCR-FD01-81617

Lab Sample ID: 550-88335-9
Date Collected: 08/16/17 09:09
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**		0.40	mg/L			08/25/17 21:39	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:06	1
Lithium	ND		0.20	mg/L		08/29/17 10:20	09/03/17 03:06	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:52	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:52	4
Barium	**0.012**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:52	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:52	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:52	4
Cobalt	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:52	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:52	4
Molybdenum	**0.0084**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:52	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:52	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:52	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-FD01-81617

Lab Sample ID: 550-88335-9
Date Collected: 08/16/17 09:09
Matrix: Water
Date Received: 08/18/17 12:40

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:49	1

Client Sample ID: FC-CCR-MW66-81617

Lab Sample ID: 550-88335-10
Date Collected: 08/16/17 09:59
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**25**	**D1**	2.0	mg/L			08/25/17 14:18	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:09	1
Lithium	**0.36**		0.20	mg/L		08/29/17 10:20	09/03/17 03:09	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:55	4
Arsenic	**0.0020**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:55	4
Barium	**0.020**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:55	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 17:55	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 17:55	4
Cobalt	**0.0078**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:55	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:55	4
Molybdenum	**0.022**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 17:55	4
Selenium	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 17:55	4
Thallium	**0.00043**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 17:55	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:51	1

Client Sample ID: FC-CCR-MW67-81617

Lab Sample ID: 550-88335-11
Date Collected: 08/16/17 14:17
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**22**	**D1**	2.0	mg/L			08/25/17 15:12	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:15	1
Lithium	**0.47**		0.20	mg/L		08/29/17 10:20	09/03/17 03:15	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:02	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:02	4
Barium	**0.020**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:02	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:02	4

Client Sample ID: FC-CCR-MW67-81617

Lab Sample ID: 550-88335-11
Date Collected: 08/16/17 14:17
Matrix: Water
Date Received: 08/18/17 12:40

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:02	4
Cobalt	**0.0043**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:02	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:02	4
Molybdenum	**0.037**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:02	4
Selenium	**0.016**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:02	4
Thallium	**0.00062**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 18:02	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:56	1

Client Sample ID: FC-CCR-MW68-81617

Lab Sample ID: 550-88335-12
Date Collected: 08/16/17 13:46
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**11**	**D1**	2.0	mg/L			08/25/17 16:07	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:20	1
Lithium	**0.38**		0.20	mg/L		08/29/17 10:20	09/03/17 03:20	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:04	4
Arsenic	**0.0069**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:04	4
Barium	**0.0074**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:04	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:04	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:04	4
Cobalt	**0.0026**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:04	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:04	4
Molybdenum	**0.0068**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:04	4
Selenium	**0.25**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:04	4
Thallium	**0.00093**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 18:04	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:37	08/31/17 12:57	1

Client Sample ID: FC-CCR-MW69-81617

Lab Sample ID: 550-88335-13
Date Collected: 08/16/17 13:10
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**17**	**D1**	2.0	mg/L			08/25/17 17:02	5

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW69-81617

Lab Sample ID: 550-88335-13
Date Collected: 08/16/17 13:10
Matrix: Water
Date Received: 08/18/17 12:40

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:26	1
Lithium	**0.44**		0.20	mg/L		08/29/17 10:20	09/03/17 03:26	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:07	4
Arsenic	**0.0063**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:07	4
Barium	**0.015**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:07	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:07	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:07	4
Cobalt	**0.0041**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:07	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:07	4
Molybdenum	**0.017**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:07	4
Selenium	**0.014**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:07	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:07	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:48	08/31/17 14:36	1

Client Sample ID: FC-CCR-MW70-81617

Lab Sample ID: 550-88335-14
Date Collected: 08/16/17 12:21
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**3.2**	**D1**	0.80	mg/L			08/25/17 01:03	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:32	1
Lithium	**0.35**		0.20	mg/L		08/29/17 10:20	09/03/17 03:32	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:09	4
Arsenic	**0.0073**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:09	4
Barium	**0.012**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:09	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:09	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:09	4
Cobalt	**0.0072**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:09	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:09	4
Molybdenum	**0.0083**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:09	4
Selenium	**0.17**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:09	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:09	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:48	08/31/17 14:37	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW71-81717

Lab Sample ID: 550-88335-15
Date Collected: 08/17/17 08:02
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/25/17 16:45	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:44	1
Lithium	**0.35**		0.20	mg/L		08/29/17 10:20	09/03/17 03:44	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:14	4
Arsenic	**0.0060**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:14	4
Barium	**0.0093**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:14	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:14	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:14	4
Cobalt	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:14	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:14	4
Molybdenum	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:14	4
Selenium	**0.21**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:14	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:14	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:48	08/31/17 14:39	1

Client Sample ID: FC-CCR-MW72-81717

Lab Sample ID: 550-88335-16
Date Collected: 08/17/17 07:15
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/25/17 18:35	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:50	1
Lithium	**0.42**		0.20	mg/L		08/29/17 10:20	09/03/17 03:50	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:16	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:16	4
Barium	**0.0077**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:16	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:16	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:16	4
Cobalt	**0.0025**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:16	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:16	4
Molybdenum	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:16	4
Selenium	**0.10**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:16	4
Thallium	**0.0010**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 18:16	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW72-81717

Lab Sample ID: 550-88335-16
Date Collected: 08/17/17 07:15
Matrix: Water
Date Received: 08/18/17 12:40

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:48	08/31/17 14:40	1

Client Sample ID: FC-CCR-FD02-81717

Lab Sample ID: 550-88335-17
Date Collected: 08/17/17 07:15
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/25/17 19:12	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 03:56	1
Lithium	**0.41**		0.20	mg/L		08/29/17 10:20	09/03/17 03:56	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:19	4
Arsenic	**0.0027**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:19	4
Barium	**0.0080**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:19	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:19	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:19	4
Cobalt	**0.0026**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:19	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:19	4
Molybdenum	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:19	4
Selenium	**0.10**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:19	4
Thallium	**0.0010**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 18:19	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:48	08/31/17 14:42	1

Client Sample ID: FC-CCR-MW73-81717

Lab Sample ID: 550-88335-18
Date Collected: 08/17/17 08:34
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80	mg/L			08/25/17 20:25	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 04:01	1
Lithium	**0.28**		0.20	mg/L		08/29/17 10:20	09/03/17 04:01	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:23	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:23	4
Barium	**0.024**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:23	4
Cadmium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:23	4

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW73-81717

Lab Sample ID: 550-88335-18
Date Collected: 08/17/17 08:34
Matrix: Water
Date Received: 08/18/17 12:40

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:23	4
Cobalt	**0.0066**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:23	4
Lead	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:23	4
Molybdenum	**0.0029**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:23	4
Selenium	**0.018**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:23	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:23	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:48	08/31/17 14:44	1

Client Sample ID: FC-CCR-MW75-81717

Lab Sample ID: 550-88335-19
Date Collected: 08/17/17 10:01
Matrix: Water
Date Received: 08/18/17 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/25/17 21:02	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 04:07	1
Lithium	**0.48**		0.20	mg/L		08/29/17 10:20	09/03/17 04:07	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:26	4
Arsenic	ND	D1	0.0020	mg/L		08/25/17 10:43	09/27/17 18:26	4
Barium	**0.018**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:26	4
Cadmium	**0.0020**	**D1**	0.00040	mg/L		08/25/17 10:43	09/27/17 18:26	4
Chromium	ND	D1	0.0040	mg/L		08/25/17 10:43	09/27/17 18:26	4
Cobalt	**0.045**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:26	4
Lead	**0.0032**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:26	4
Molybdenum	**0.17**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:26	4
Selenium	**0.0021**	**D1**	0.0020	mg/L		08/25/17 10:43	09/27/17 18:26	4
Thallium	ND	D1	0.00040	mg/L		08/25/17 10:43	09/27/17 18:26	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/29/17 14:48	08/31/17 14:45	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-125822/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125822

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			08/24/17 19:07	1

Lab Sample ID: LCS 550-125822/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125822

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.20		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-125822/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125822

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.18		mg/L		105	90 - 110	1	20

Lab Sample ID: 550-88335-1 MS — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	ND	D1 D5	8.00	8.77	D1	mg/L		105	80 - 120		

Lab Sample ID: 550-88335-1 MSD — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND	D1 D5	8.00	8.70	D1	mg/L		104	80 - 120	1	20

Lab Sample ID: MB 550-125941/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125941

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			08/25/17 15:13	1

Lab Sample ID: LCS 550-125941/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125941

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.34		mg/L		108	90 - 110		

Lab Sample ID: LCSD 550-125941/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125941

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.37		mg/L		109	90 - 110	1	20

Lab Sample ID: 550-88335-15 MS — **Client Sample ID: FC-CCR-MW71-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125941

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	ND	D1 D5	20.0	21.0		mg/L		103	80 - 120

Lab Sample ID: 550-88335-15 MSD — **Client Sample ID: FC-CCR-MW71-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125941

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND	D1 D5	20.0	21.2		mg/L		104	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-126013/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126563 — **Prep Batch: 126013**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/29/17 10:20	09/03/17 02:00	1
Lithium	ND		0.20	mg/L		08/29/17 10:20	09/03/17 02:00	1

Lab Sample ID: LCS 550-126013/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126563 — **Prep Batch: 126013**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	1.05		mg/L		105	85 - 115
Lithium	1.00	1.02		mg/L		102	85 - 115

Lab Sample ID: LCSD 550-126013/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126563 — **Prep Batch: 126013**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	1.04		mg/L		104	85 - 115	1	20
Lithium	1.00	1.01		mg/L		101	85 - 115	1	20

Lab Sample ID: 550-88335-1 MS — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126563 — **Prep Batch: 126013**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	ND		1.00	0.977		mg/L		98	70 - 130
Lithium	0.96		1.00	2.01		mg/L		105	70 - 130

Lab Sample ID: 550-88335-1 MSD — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126563 — **Prep Batch: 126013**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND		1.00	0.984		mg/L		98	70 - 130	1	20
Lithium	0.96		1.00	2.08		mg/L		112	70 - 130	3	20

QC Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-125803/1-A
Matrix: Water
Analysis Batch: 128567

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125803

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		08/25/17 10:43	09/27/17 17:17	1
Arsenic	ND		0.00050	mg/L		08/25/17 10:43	09/27/17 17:17	1
Barium	ND		0.00050	mg/L		08/25/17 10:43	09/27/17 17:17	1
Cadmium	ND		0.00010	mg/L		08/25/17 10:43	09/27/17 17:17	1
Chromium	ND		0.0010	mg/L		08/25/17 10:43	09/27/17 17:17	1
Cobalt	ND		0.00050	mg/L		08/25/17 10:43	09/27/17 17:17	1
Lead	ND		0.00050	mg/L		08/25/17 10:43	09/27/17 17:17	1
Molybdenum	ND		0.00050	mg/L		08/25/17 10:43	09/27/17 17:17	1
Selenium	ND		0.00050	mg/L		08/25/17 10:43	09/27/17 17:17	1
Thallium	ND		0.00010	mg/L		08/25/17 10:43	09/27/17 17:17	1

Lab Sample ID: LCS 550-125803/2-A
Matrix: Water
Analysis Batch: 128567

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0954		mg/L		95	85 - 115
Arsenic	0.100	0.0967		mg/L		97	85 - 115
Barium	0.100	0.0954		mg/L		95	85 - 115
Cadmium	0.100	0.0965		mg/L		96	85 - 115
Chromium	0.100	0.0961		mg/L		96	85 - 115
Cobalt	0.100	0.0966		mg/L		97	85 - 115
Lead	0.100	0.0949		mg/L		95	85 - 115
Molybdenum	0.100	0.0950		mg/L		95	85 - 115
Selenium	0.100	0.0962		mg/L		96	85 - 115
Thallium	0.100	0.0954		mg/L		95	85 - 115

Lab Sample ID: LCSD 550-125803/3-A
Matrix: Water
Analysis Batch: 128567

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125803

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0947		mg/L		95	85 - 115	1	20
Arsenic	0.100	0.0942		mg/L		94	85 - 115	3	20
Barium	0.100	0.0951		mg/L		95	85 - 115	0	20
Cadmium	0.100	0.0955		mg/L		96	85 - 115	1	20
Chromium	0.100	0.0942		mg/L		94	85 - 115	2	20
Cobalt	0.100	0.0943		mg/L		94	85 - 115	2	20
Lead	0.100	0.0946		mg/L		95	85 - 115	0	20
Molybdenum	0.100	0.0941		mg/L		94	85 - 115	1	20
Selenium	0.100	0.0927		mg/L		93	85 - 115	4	20
Thallium	0.100	0.0949		mg/L		95	85 - 115	1	20

Lab Sample ID: 550-88335-1 MS
Matrix: Water
Analysis Batch: 128567

Client Sample ID: FC-CCR-MW7-81717
Prep Type: Total/NA
Prep Batch: 125803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	D1	0.100	0.0974		mg/L		97	70 - 130

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-88335-1 MS — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128567 — **Prep Batch: 125803**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	ND	D1	0.100	0.0988		mg/L		98	70 - 130		
Barium	0.015	D1	0.100	0.110		mg/L		95	70 - 130		
Cadmium	ND	D1	0.100	0.0909		mg/L		91	70 - 130		
Chromium	0.0047	D1	0.100	0.0955		mg/L		91	70 - 130		
Cobalt	ND	D1	0.100	0.0914		mg/L		91	70 - 130		
Lead	ND	D1	0.100	0.0848		mg/L		85	70 - 130		
Molybdenum	0.0022	D1	0.100	0.101		mg/L		99	70 - 130		
Selenium	0.013	D1	0.100	0.117		mg/L		104	70 - 130		
Thallium	ND	D1	0.100	0.0871		mg/L		87	70 - 130		

Lab Sample ID: 550-88335-1 MSD — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128567 — **Prep Batch: 125803**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	D1	0.100	0.0947		mg/L		94	70 - 130	3	20
Arsenic	ND	D1	0.100	0.0990		mg/L		98	70 - 130	0	20
Barium	0.015	D1	0.100	0.107		mg/L		92	70 - 130	3	20
Cadmium	ND	D1	0.100	0.0890		mg/L		89	70 - 130	2	20
Chromium	0.0047	D1	0.100	0.0953		mg/L		91	70 - 130	0	20
Cobalt	ND	D1	0.100	0.0901		mg/L		90	70 - 130	1	20
Lead	ND	D1	0.100	0.0823		mg/L		82	70 - 130	3	20
Molybdenum	0.0022	D1	0.100	0.0986		mg/L		96	70 - 130	3	20
Selenium	0.013	D1	0.100	0.117		mg/L		104	70 - 130	0	20
Thallium	ND	D1	0.100	0.0843		mg/L		84	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-126065/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126325 — **Prep Batch: 126065**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		08/29/17 14:37	08/31/17 12:29	1

Lab Sample ID: LCS 550-126065/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126325 — **Prep Batch: 126065**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg			0.0100	0.0107		mg/L		107	85 - 115		

Lab Sample ID: LCSD 550-126065/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126325 — **Prep Batch: 126065**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg			0.0100	0.0108		mg/L		108	85 - 115	2	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-88335-1 MS — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126325 — **Prep Batch: 126065**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg	ND		0.0100	0.00982		mg/L		98	70 - 130		

Lab Sample ID: 550-88335-1 MSD — **Client Sample ID: FC-CCR-MW7-81717**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126325 — **Prep Batch: 126065**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00874		mg/L		87	70 - 130	12	20

Lab Sample ID: MB 550-126066/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126327 — **Prep Batch: 126066**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		08/29/17 14:48	08/31/17 14:04	1

Lab Sample ID: LCS 550-126066/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126327 — **Prep Batch: 126066**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg			0.0100	0.0104		mg/L		104	85 - 115		

Lab Sample ID: LCSD 550-126066/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126327 — **Prep Batch: 126066**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg			0.0100	0.0102		mg/L		102	85 - 115	2	20

Lab Sample ID: 550-88528-BO-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126327 — **Prep Batch: 126066**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg	ND		0.0100	0.0100		mg/L		100	70 - 130		

Lab Sample ID: 550-88528-BO-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126327 — **Prep Batch: 126066**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00986		mg/L		99	70 - 130	1	20

QC Association Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

HPLC/IC

Analysis Batch: 125822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-1	FC-CCR-MW7-81717	Total/NA	Water	300.0	
550-88335-2	FC-CCR-MW49A-81717	Total/NA	Water	300.0	
550-88335-3	FC-CCR-MW60-81717	Total/NA	Water	300.0	
550-88335-4	FC-CCR-MW61-81717	Total/NA	Water	300.0	
550-88335-5	FC-CCR-MW62-81617	Total/NA	Water	300.0	
550-88335-6	FC-CCR-MW63-81617	Total/NA	Water	300.0	
550-88335-7	FC-CCR-MW64-81617	Total/NA	Water	300.0	
550-88335-8	FC-CCR-MW65-81617	Total/NA	Water	300.0	
550-88335-10	FC-CCR-MW66-81617	Total/NA	Water	300.0	
550-88335-11	FC-CCR-MW67-81617	Total/NA	Water	300.0	
550-88335-12	FC-CCR-MW68-81617	Total/NA	Water	300.0	
550-88335-13	FC-CCR-MW69-81617	Total/NA	Water	300.0	
550-88335-14	FC-CCR-MW70-81617	Total/NA	Water	300.0	
MB 550-125822/2	Method Blank	Total/NA	Water	300.0	
LCS 550-125822/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-125822/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-88335-1 MS	FC-CCR-MW7-81717	Total/NA	Water	300.0	
550-88335-1 MSD	FC-CCR-MW7-81717	Total/NA	Water	300.0	

Analysis Batch: 125941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-9	FC-CCR-FD01-81617	Total/NA	Water	300.0	
550-88335-15	FC-CCR-MW71-81717	Total/NA	Water	300.0	
550-88335-16	FC-CCR-MW72-81717	Total/NA	Water	300.0	
550-88335-17	FC-CCR-FD02-81717	Total/NA	Water	300.0	
550-88335-18	FC-CCR-MW73-81717	Total/NA	Water	300.0	
550-88335-19	FC-CCR-MW75-81717	Total/NA	Water	300.0	
MB 550-125941/2	Method Blank	Total/NA	Water	300.0	
LCS 550-125941/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-125941/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-88335-15 MS	FC-CCR-MW71-81717	Total/NA	Water	300.0	
550-88335-15 MSD	FC-CCR-MW71-81717	Total/NA	Water	300.0	

Metals

Prep Batch: 125803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-1	FC-CCR-MW7-81717	Total/NA	Water	200.8	
550-88335-2	FC-CCR-MW49A-81717	Total/NA	Water	200.8	
550-88335-3	FC-CCR-MW60-81717	Total/NA	Water	200.8	
550-88335-4	FC-CCR-MW61-81717	Total/NA	Water	200.8	
550-88335-5	FC-CCR-MW62-81617	Total/NA	Water	200.8	
550-88335-6	FC-CCR-MW63-81617	Total/NA	Water	200.8	
550-88335-7	FC-CCR-MW64-81617	Total/NA	Water	200.8	
550-88335-8	FC-CCR-MW65-81617	Total/NA	Water	200.8	
550-88335-9	FC-CCR-FD01-81617	Total/NA	Water	200.8	
550-88335-10	FC-CCR-MW66-81617	Total/NA	Water	200.8	
550-88335-11	FC-CCR-MW67-81617	Total/NA	Water	200.8	
550-88335-12	FC-CCR-MW68-81617	Total/NA	Water	200.8	
550-88335-13	FC-CCR-MW69-81617	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 125803 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-14	FC-CCR-MW70-81617	Total/NA	Water	200.8	
550-88335-15	FC-CCR-MW71-81717	Total/NA	Water	200.8	
550-88335-16	FC-CCR-MW72-81717	Total/NA	Water	200.8	
550-88335-17	FC-CCR-FD02-81717	Total/NA	Water	200.8	
550-88335-18	FC-CCR-MW73-81717	Total/NA	Water	200.8	
550-88335-19	FC-CCR-MW75-81717	Total/NA	Water	200.8	
MB 550-125803/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-125803/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-125803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-88335-1 MS	FC-CCR-MW7-81717	Total/NA	Water	200.8	
550-88335-1 MSD	FC-CCR-MW7-81717	Total/NA	Water	200.8	

Prep Batch: 126013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-1	FC-CCR-MW7-81717	Total/NA	Water	200.7	
550-88335-2	FC-CCR-MW49A-81717	Total/NA	Water	200.7	
550-88335-3	FC-CCR-MW60-81717	Total/NA	Water	200.7	
550-88335-4	FC-CCR-MW61-81717	Total/NA	Water	200.7	
550-88335-5	FC-CCR-MW62-81617	Total/NA	Water	200.7	
550-88335-6	FC-CCR-MW63-81617	Total/NA	Water	200.7	
550-88335-7	FC-CCR-MW64-81617	Total/NA	Water	200.7	
550-88335-8	FC-CCR-MW65-81617	Total/NA	Water	200.7	
550-88335-9	FC-CCR-FD01-81617	Total/NA	Water	200.7	
550-88335-10	FC-CCR-MW66-81617	Total/NA	Water	200.7	
550-88335-11	FC-CCR-MW67-81617	Total/NA	Water	200.7	
550-88335-12	FC-CCR-MW68-81617	Total/NA	Water	200.7	
550-88335-13	FC-CCR-MW69-81617	Total/NA	Water	200.7	
550-88335-14	FC-CCR-MW70-81617	Total/NA	Water	200.7	
550-88335-15	FC-CCR-MW71-81717	Total/NA	Water	200.7	
550-88335-16	FC-CCR-MW72-81717	Total/NA	Water	200.7	
550-88335-17	FC-CCR-FD02-81717	Total/NA	Water	200.7	
550-88335-18	FC-CCR-MW73-81717	Total/NA	Water	200.7	
550-88335-19	FC-CCR-MW75-81717	Total/NA	Water	200.7	
MB 550-126013/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-126013/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-126013/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-88335-1 MS	FC-CCR-MW7-81717	Total/NA	Water	200.7	
550-88335-1 MSD	FC-CCR-MW7-81717	Total/NA	Water	200.7	

Prep Batch: 126065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-1	FC-CCR-MW7-81717	Total/NA	Water	245.1	
550-88335-2	FC-CCR-MW49A-81717	Total/NA	Water	245.1	
550-88335-3	FC-CCR-MW60-81717	Total/NA	Water	245.1	
550-88335-4	FC-CCR-MW61-81717	Total/NA	Water	245.1	
550-88335-5	FC-CCR-MW62-81617	Total/NA	Water	245.1	
550-88335-6	FC-CCR-MW63-81617	Total/NA	Water	245.1	
550-88335-7	FC-CCR-MW64-81617	Total/NA	Water	245.1	
550-88335-8	FC-CCR-MW65-81617	Total/NA	Water	245.1	
550-88335-9	FC-CCR-FD01-81617	Total/NA	Water	245.1	
550-88335-10	FC-CCR-MW66-81617	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 126065 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-11	FC-CCR-MW67-81617	Total/NA	Water	245.1	
550-88335-12	FC-CCR-MW68-81617	Total/NA	Water	245.1	
MB 550-126065/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-126065/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-126065/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-88335-1 MS	FC-CCR-MW7-81717	Total/NA	Water	245.1	
550-88335-1 MSD	FC-CCR-MW7-81717	Total/NA	Water	245.1	

Prep Batch: 126066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-13	FC-CCR-MW69-81617	Total/NA	Water	245.1	
550-88335-14	FC-CCR-MW70-81617	Total/NA	Water	245.1	
550-88335-15	FC-CCR-MW71-81717	Total/NA	Water	245.1	
550-88335-16	FC-CCR-MW72-81717	Total/NA	Water	245.1	
550-88335-17	FC-CCR-FD02-81717	Total/NA	Water	245.1	
550-88335-18	FC-CCR-MW73-81717	Total/NA	Water	245.1	
550-88335-19	FC-CCR-MW75-81717	Total/NA	Water	245.1	
MB 550-126066/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-126066/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-126066/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-88528-BO-1-A MS	Matrix Spike	Total/NA	Water	245.1	
550-88528-BO-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 126325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-1	FC-CCR-MW7-81717	Total/NA	Water	245.1	126065
550-88335-2	FC-CCR-MW49A-81717	Total/NA	Water	245.1	126065
550-88335-3	FC-CCR-MW60-81717	Total/NA	Water	245.1	126065
550-88335-4	FC-CCR-MW61-81717	Total/NA	Water	245.1	126065
550-88335-5	FC-CCR-MW62-81617	Total/NA	Water	245.1	126065
550-88335-6	FC-CCR-MW63-81617	Total/NA	Water	245.1	126065
550-88335-7	FC-CCR-MW64-81617	Total/NA	Water	245.1	126065
550-88335-8	FC-CCR-MW65-81617	Total/NA	Water	245.1	126065
550-88335-9	FC-CCR-FD01-81617	Total/NA	Water	245.1	126065
550-88335-10	FC-CCR-MW66-81617	Total/NA	Water	245.1	126065
550-88335-11	FC-CCR-MW67-81617	Total/NA	Water	245.1	126065
550-88335-12	FC-CCR-MW68-81617	Total/NA	Water	245.1	126065
MB 550-126065/1-A	Method Blank	Total/NA	Water	245.1	126065
LCS 550-126065/2-A	Lab Control Sample	Total/NA	Water	245.1	126065
LCSD 550-126065/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	126065
550-88335-1 MS	FC-CCR-MW7-81717	Total/NA	Water	245.1	126065
550-88335-1 MSD	FC-CCR-MW7-81717	Total/NA	Water	245.1	126065

Analysis Batch: 126327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-13	FC-CCR-MW69-81617	Total/NA	Water	245.1	126066
550-88335-14	FC-CCR-MW70-81617	Total/NA	Water	245.1	126066
550-88335-15	FC-CCR-MW71-81717	Total/NA	Water	245.1	126066
550-88335-16	FC-CCR-MW72-81717	Total/NA	Water	245.1	126066
550-88335-17	FC-CCR-FD02-81717	Total/NA	Water	245.1	126066
550-88335-18	FC-CCR-MW73-81717	Total/NA	Water	245.1	126066

Metals (Continued)

Analysis Batch: 126327 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-19	FC-CCR-MW75-81717	Total/NA	Water	245.1	126066
MB 550-126066/1-A	Method Blank	Total/NA	Water	245.1	126066
LCS 550-126066/2-A	Lab Control Sample	Total/NA	Water	245.1	126066
LCSD 550-126066/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	126066
550-88528-BO-1-A MS	Matrix Spike	Total/NA	Water	245.1	126066
550-88528-BO-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	126066

Analysis Batch: 126563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-1	FC-CCR-MW7-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-2	FC-CCR-MW49A-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-3	FC-CCR-MW60-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-4	FC-CCR-MW61-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-5	FC-CCR-MW62-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-6	FC-CCR-MW63-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-7	FC-CCR-MW64-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-8	FC-CCR-MW65-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-9	FC-CCR-FD01-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-10	FC-CCR-MW66-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-11	FC-CCR-MW67-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-12	FC-CCR-MW68-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-13	FC-CCR-MW69-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-14	FC-CCR-MW70-81617	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-15	FC-CCR-MW71-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-16	FC-CCR-MW72-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-17	FC-CCR-FD02-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-18	FC-CCR-MW73-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-19	FC-CCR-MW75-81717	Total/NA	Water	200.7 Rev 4.4	126013
MB 550-126013/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	126013
LCS 550-126013/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	126013
LCSD 550-126013/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-1 MS	FC-CCR-MW7-81717	Total/NA	Water	200.7 Rev 4.4	126013
550-88335-1 MSD	FC-CCR-MW7-81717	Total/NA	Water	200.7 Rev 4.4	126013

Analysis Batch: 128567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-1	FC-CCR-MW7-81717	Total/NA	Water	200.8 LL	125803
550-88335-2	FC-CCR-MW49A-81717	Total/NA	Water	200.8 LL	125803
550-88335-3	FC-CCR-MW60-81717	Total/NA	Water	200.8 LL	125803
550-88335-4	FC-CCR-MW61-81717	Total/NA	Water	200.8 LL	125803
550-88335-5	FC-CCR-MW62-81617	Total/NA	Water	200.8 LL	125803
550-88335-6	FC-CCR-MW63-81617	Total/NA	Water	200.8 LL	125803
550-88335-7	FC-CCR-MW64-81617	Total/NA	Water	200.8 LL	125803
550-88335-8	FC-CCR-MW65-81617	Total/NA	Water	200.8 LL	125803
550-88335-9	FC-CCR-FD01-81617	Total/NA	Water	200.8 LL	125803
550-88335-10	FC-CCR-MW66-81617	Total/NA	Water	200.8 LL	125803
550-88335-11	FC-CCR-MW67-81617	Total/NA	Water	200.8 LL	125803
550-88335-12	FC-CCR-MW68-81617	Total/NA	Water	200.8 LL	125803
550-88335-13	FC-CCR-MW69-81617	Total/NA	Water	200.8 LL	125803
550-88335-14	FC-CCR-MW70-81617	Total/NA	Water	200.8 LL	125803
550-88335-15	FC-CCR-MW71-81717	Total/NA	Water	200.8 LL	125803

Metals (Continued)

Analysis Batch: 128567 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-88335-16	FC-CCR-MW72-81717	Total/NA	Water	200.8 LL	125803
550-88335-17	FC-CCR-FD02-81717	Total/NA	Water	200.8 LL	125803
550-88335-18	FC-CCR-MW73-81717	Total/NA	Water	200.8 LL	125803
550-88335-19	FC-CCR-MW75-81717	Total/NA	Water	200.8 LL	125803
MB 550-125803/1-A	Method Blank	Total/NA	Water	200.8 LL	125803
LCS 550-125803/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	125803
LCSD 550-125803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	125803
550-88335-1 MS	FC-CCR-MW7-81717	Total/NA	Water	200.8 LL	125803
550-88335-1 MSD	FC-CCR-MW7-81717	Total/NA	Water	200.8 LL	125803

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-81717 — Lab Sample ID: 550-88335-1

Date Collected: 08/17/17 11:17 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125822	08/25/17 02:52	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 02:20	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:24	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:37	JTG	TAL PHX

Client Sample ID: FC-CCR-MW49A-81717 — Lab Sample ID: 550-88335-2

Date Collected: 08/17/17 12:23 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	125822	08/25/17 05:37	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 02:26	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:31	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:38	JTG	TAL PHX

Client Sample ID: FC-CCR-MW60-81717 — Lab Sample ID: 550-88335-3

Date Collected: 08/17/17 10:32 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125822	08/25/17 06:32	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 02:32	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:33	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:40	JTG	TAL PHX

Client Sample ID: FC-CCR-MW61-81717 — Lab Sample ID: 550-88335-4

Date Collected: 08/17/17 09:24 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125822	08/25/17 08:21	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 02:37	R1K	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW61-81717 — Lab Sample ID: 550-88335-4

Date Collected: 08/17/17 09:24 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:38	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:41	JTG	TAL PHX

Client Sample ID: FC-CCR-MW62-81617 — Lab Sample ID: 550-88335-5

Date Collected: 08/16/17 10:34 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125822	08/25/17 09:16	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 02:49	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:41	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:43	JTG	TAL PHX

Client Sample ID: FC-CCR-MW63-81617 — Lab Sample ID: 550-88335-6

Date Collected: 08/16/17 11:06 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125822	08/25/17 10:11	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 02:55	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:43	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:44	JTG	TAL PHX

Client Sample ID: FC-CCR-MW64-81617 — Lab Sample ID: 550-88335-7

Date Collected: 08/16/17 11:49 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125822	08/25/17 11:06	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:01	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:48	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:46	JTG	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW65-81617 — Lab Sample ID: 550-88335-8

Date Collected: 08/16/17 09:09 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125822	08/25/17 12:01	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:03	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:50	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:48	JTG	TAL PHX

Client Sample ID: FC-CCR-FD01-81617 — Lab Sample ID: 550-88335-9

Date Collected: 08/16/17 09:09 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125941	08/25/17 21:39	JSS	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:06	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:52	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:49	JTG	TAL PHX

Client Sample ID: FC-CCR-MW66-81617 — Lab Sample ID: 550-88335-10

Date Collected: 08/16/17 09:59 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125822	08/25/17 14:18	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:09	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 17:55	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:51	JTG	TAL PHX

Client Sample ID: FC-CCR-MW67-81617 — Lab Sample ID: 550-88335-11

Date Collected: 08/16/17 14:17 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125822	08/25/17 15:12	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:15	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW67-81617 — Lab Sample ID: 550-88335-11

Date Collected: 08/16/17 14:17
Date Received: 08/18/17 12:40
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:02	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:56	JTG	TAL PHX

Client Sample ID: FC-CCR-MW68-81617 — Lab Sample ID: 550-88335-12

Date Collected: 08/16/17 13:46
Date Received: 08/18/17 12:40
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125822	08/25/17 16:07	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:20	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:04	TEK	TAL PHX
Total/NA	Prep	245.1			126065	08/29/17 14:37	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126325	08/31/17 12:57	JTG	TAL PHX

Client Sample ID: FC-CCR-MW69-81617 — Lab Sample ID: 550-88335-13

Date Collected: 08/16/17 13:10
Date Received: 08/18/17 12:40
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125822	08/25/17 17:02	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:26	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:07	TEK	TAL PHX
Total/NA	Prep	245.1			126066	08/29/17 14:48	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126327	08/31/17 14:36	JTG	TAL PHX

Client Sample ID: FC-CCR-MW70-81617 — Lab Sample ID: 550-88335-14

Date Collected: 08/16/17 12:21
Date Received: 08/18/17 12:40
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125822	08/25/17 01:03	JAE	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:32	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:09	TEK	TAL PHX
Total/NA	Prep	245.1			126066	08/29/17 14:48	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126327	08/31/17 14:37	JTG	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW71-81717 — Lab Sample ID: 550-88335-15

Date Collected: 08/17/17 08:02 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125941	08/25/17 16:45	JSS	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:44	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:14	TEK	TAL PHX
Total/NA	Prep	245.1			126066	08/29/17 14:48	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126327	08/31/17 14:39	JTG	TAL PHX

Client Sample ID: FC-CCR-MW72-81717 — Lab Sample ID: 550-88335-16

Date Collected: 08/17/17 07:15 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125941	08/25/17 18:35	JSS	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:50	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:16	TEK	TAL PHX
Total/NA	Prep	245.1			126066	08/29/17 14:48	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126327	08/31/17 14:40	JTG	TAL PHX

Client Sample ID: FC-CCR-FD02-81717 — Lab Sample ID: 550-88335-17

Date Collected: 08/17/17 07:15 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125941	08/25/17 19:12	JSS	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 03:56	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:19	TEK	TAL PHX
Total/NA	Prep	245.1			126066	08/29/17 14:48	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126327	08/31/17 14:42	JTG	TAL PHX

Client Sample ID: FC-CCR-MW73-81717 — Lab Sample ID: 550-88335-18

Date Collected: 08/17/17 08:34 — **Matrix: Water**
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125941	08/25/17 20:25	JSS	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 04:01	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Client Sample ID: FC-CCR-MW73-81717

Lab Sample ID: 550-88335-18
Date Collected: 08/17/17 08:34
Matrix: Water
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:23	TEK	TAL PHX
Total/NA	Prep	245.1			126066	08/29/17 14:48	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126327	08/31/17 14:44	JTG	TAL PHX

Client Sample ID: FC-CCR-MW75-81717

Lab Sample ID: 550-88335-19
Date Collected: 08/17/17 10:01
Matrix: Water
Date Received: 08/18/17 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125941	08/25/17 21:02	JSS	TAL PHX
Total/NA	Prep	200.7			126013	08/29/17 10:20	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	126563	09/03/17 04:07	R1K	TAL PHX
Total/NA	Prep	200.8			125803	08/25/17 10:43	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	128567	09/27/17 18:26	TEK	TAL PHX
Total/NA	Prep	245.1			126066	08/29/17 14:48	JTG	TAL PHX
Total/NA	Analysis	245.1		1	126327	08/31/17 14:45	JTG	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Laboratory: TestAmerica Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arizona	State Program	9	AZ0728	06-09-18

Method Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

TestAmerica Job ID: 550-88335-2
SDG: Cholla

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

9/29/2017

Regulatory Program: CCR

Client Contact	Doug Lavarnway	Doug Lavarnway	8/18/2017
APS Four Corners	928-587-0319	Lab Contact:	Carrier:
End of County Road 6675	**Analysis Turnaround Time**		
Fruitland, New Mexico 87416			
(928) 587-0319 Phone	TAT if different from Below _____		
(xxx) xxx-xxxx FAX			
Project Name: CCR			
Site: Cholla			
P O #			

COC No: ___3___ of __6___ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 200.7 (Be, Li)	200.8 (Sb, As, Ba, Cd, Cr, Co, Pb, Mo, Se, Tl)	EPA 245.1 (Hg)	EPA 300.0 (F)	Sample Specific Notes:
1	FC-CCR-MW7-81717	8/17/2017	1117	G	W	2	N	x	x	x	x	x	
2	FC-CCR-MW49A-81717	8/17/2017	1223	G	W	2	N	x	x	x	x	x	
3	FC-CCR-MW60-81717	8/17/2017	1032	G	W	2	N	x	x	x	x	x	
4	FC-CCR-MW61-81717	8/17/2017	924	G	W	2	N	x	x	x	x	x	
5	FC-CCR-MW62-81617	8/16/2017	1034	G	W	2	N	x	x	x	x	x	
6	FC-CCR-MW63-81617	8/16/2017	1106	G	W	2	N	x	x	x	x	x	
7	FC-CCR-MW64-81617	8/16/2017	1149	G	W	2	N	x	x	x	x	x	
8	FC-CCR-MW65-81617	8/16/2017	909	G	W	2	N	x	x	x	x	x	
9	FC-CCR-FD01-81617	8/16/2017	909	G	W	2	N	x	x	x	x	x	

NW 8-18-17

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by: Doug Lavarnway	Company: APS	Date/Time: 8/18 0900	Received by:	Company: RedJ	Date/Time: 8/18/17 9am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 8-18-17 1240

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

9/29/2017

Regulatory Program: CCR

Client Contact	**Doug Lavarnway**	**Doug Lavarnway**	**8/18/2017**
APS Four Corners	928-587-0319	**Lab Contact:**	**Carrier:**
End of County Road 6675	**Analysis Turnaround Time**		
Fruitland, New Mexico 87416			
(928) 587-0319 Phone	TAT if different from Below _____		
(xxx) xxx-xxxx FAX			
Project Name: CCR			
Site: Cholla			
P O #			

COC No: 4 of 6 COCs

Sampler:

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 200.7 (Be, Li)	200.8 (Sb, As, Ba, Cd, Cr, Co, Pb, Mo, Se, Tl)	EPA 245.1 (Hg)	EPA 300.0 (F)	Sample Specific Notes:
10	FC-CCR-MW66-81617	8/16/2017	959	G	W	2	N	x	x	x	x	x	
11	FC-CCR-MW67-81617	8/16/2017	1417	G	W	2	N	x	x	x	x	x	
12	FC-CCR-MW68-81617	8/16/2017	1346	G	W	2	N	x	x	x	x	x	
13	FC-CCR-MW69-81617	8/16/2017	1310	G	W	2	N	x	x	x	x	x	
14	FC-CCR-MW70-81617	8/16/2017	1221	G	W	2	N	x	x	x	x	x	
15	FC-CCR-MW71-81717	8/17/2017	802	G	W	2	N	x	x	x	x	x	
16	FC-CCR-MW72-81717	8/17/2017	715	G	W	2	N	x	x	x	x	x	
17	FC-CCR-FD02-81717	8/17/2017	715	G	W	2	N	x	x	x	x	x	
18	FC-CCR-MW73-81717	8/17/2017	834	G	W	2	N	x	x	x	x	x	
19	FC-CCR-MW75-81717	8/17/2017	1001	G	W	2	N	x	x	x	x	x	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by: Doug Lavarnway	Company: APS	Date/Time: 8/18 0900	Received by: D Rogers	Company: Red J	Date/Time: 8/18/17 9am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 8-18-17 1240

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-88335-2
SDG Number: Cholla

Login Number: 88335
List Number: 1
Creator: Vilaboy, Monica

List Source: 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.