TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-84943-2
TestAmerica Sample Delivery Group: Cholla
Client Project/Site: APS - Four Corners CCR

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

Attn: Doug Lavarnway

Authorized for release by:
7/20/2017 12:59:32 PM

Ken Baker, Project Manager II
(602)659-7624
ken.baker@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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 11
QC Sample Results 23
QC Association Summary 30
Lab Chronicle 35
Certification Summary 41
Method Summary 42
Chain of Custody 43
Receipt Checklists 45

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.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.

Metals

Qualifier	Qualifier Description
B7	Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the blank.
B1	Target analyte detected in method blank at or above the method reporting limit.
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)

Job ID: 550-84943-2

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-84943-2

Comments
No additional comments.

Receipt
The samples were received on 6/24/2017 8:25 AM; 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, 1.0º C, 1.1º C and 1.3º 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: APS - Four Corners CCR

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-84943-1	FC-CCR-MW7-62217	Water	06/22/17 13:40	06/24/17 08:25
550-84943-2	FC-CCR-MW49A-62217	Water	06/22/17 14:27	06/24/17 08:25
550-84943-3	FC-CCR-MW60-62217	Water	06/22/17 11:11	06/24/17 08:25
550-84943-4	FC-CCR-MW61-62217	Water	06/22/17 11:56	06/24/17 08:25
550-84943-5	FC-CCR-MW62-62117	Water	06/21/17 09:08	06/24/17 08:25
550-84943-6	FC-CCR-MW63-62117	Water	06/21/17 10:50	06/24/17 08:25
550-84943-7	FC-CCR-MW64-62117	Water	06/21/17 11:27	06/24/17 08:25
550-84943-8	FC-CCR-MW65-62117	Water	06/21/17 08:20	06/24/17 08:25
550-84943-9	FC-CCR-FD01-62117	Water	06/21/17 08:20	06/24/17 08:25
550-84943-10	FC-CCR-MW66-62117	Water	06/21/17 09:44	06/24/17 08:25
550-84943-11	FC-CCR-MW67-62117	Water	06/21/17 13:26	06/24/17 08:25
550-84943-12	FC-CCR-MW68-62117	Water	06/21/17 14:08	06/24/17 08:25
550-84943-13	FC-CCR-MW69-62117	Water	06/21/17 12:44	06/24/17 08:25
550-84943-14	FC-CCR-MW70-62117	Water	06/21/17 12:05	06/24/17 08:25
550-84943-15	FC-CCR-MW71-62217	Water	06/22/17 08:43	06/24/17 08:25
550-84943-16	FC-CCR-MW72-62217	Water	06/22/17 07:59	06/24/17 08:25
550-84943-17	FC-CCR-FD02-62217	Water	06/22/17 07:59	06/24/17 08:25
550-84943-18	FC-CCR-MW73-62217	Water	06/22/17 09:24	06/24/17 08:25
550-84943-19	FC-CCR-MW74-62217	Water	06/22/17 10:04	06/24/17 08:25
550-84943-20	FC-CCR-MW75-62217	Water	06/22/17 12:38	06/24/17 08:25

Detection Summary

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-62217 — Lab Sample ID: 550-84943-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.86		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.00067		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.015	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Chromium	0.0018		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0037		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.014		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00015		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW49A-62217 — Lab Sample ID: 550-84943-2

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
Arsenic	0.0011		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.021	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00024		0.00010	mg/L	1		200.8 LL	Total/NA
Chromium	0.00088		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0039		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.025		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.0017		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.0014		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW60-62217 — Lab Sample ID: 550-84943-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	7.1	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.78		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.00072		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.017	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00060		0.00010	mg/L	1		200.8 LL	Total/NA
Chromium	0.0027		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.29		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.17		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.00084		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00025		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW61-62217 — Lab Sample ID: 550-84943-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.3		0.40	mg/L	1		300.0	Total/NA
Lithium	0.37		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.00063		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.014	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00098		0.00010	mg/L	1		200.8 LL	Total/NA
Chromium	0.00052		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.015		0.00050	mg/L	1		200.8 LL	Total/NA
Lead	0.00086		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.079		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.00076		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00016		0.00010	mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW62-62117 — Lab Sample ID: 550-84943-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.4		0.40	mg/L	1		300.0	Total/NA
Arsenic	0.00065		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.023	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Chromium	0.0010		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0084		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0030		0.00050	mg/L	1		200.8 LL	Total/NA
Hg	0.00025		0.00020	mg/L	1		245.1	Total/NA

Client Sample ID: FC-CCR-MW63-62117 — Lab Sample ID: 550-84943-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.9		0.40	mg/L	1		300.0	Total/NA
Barium	0.019	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0060		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0024		0.00050	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW64-62117 — Lab Sample ID: 550-84943-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.4		0.40	mg/L	1		300.0	Total/NA
Barium	0.027	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0012		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0051		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00020		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW65-62117 — Lab Sample ID: 550-84943-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.9		0.40	mg/L	1		300.0	Total/NA
Barium	0.018	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0011		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0097		0.00050	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD01-62117 — Lab Sample ID: 550-84943-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Barium	0.019	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0011		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0098		0.00050	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW66-62117 — Lab Sample ID: 550-84943-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	24	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.32		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0028		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.022	B7	0.00050	mg/L	1		200.8 LL	Total/NA
Chromium	0.00088		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0074		0.00050	mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW66-62117 (Continued) — Lab Sample ID: 550-84943-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.023		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.0022		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00041		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW67-62117 — Lab Sample ID: 550-84943-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	21	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.40		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0020		0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.020	B1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0049		0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.039		0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.024		0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.00057		0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW68-62117 — Lab Sample ID: 550-84943-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	8.7	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.33		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0079	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0075		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0051	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.28	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.00065	D1	0.00040	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW69-62117 — Lab Sample ID: 550-84943-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	14	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	0.0063	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.016	B7 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	0.017	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW70-62117 — Lab Sample ID: 550-84943-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.9	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.32		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0049	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.014	B7 D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0075	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0088	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.18	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW71-62217 — Lab Sample ID: 550-84943-15

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW71-62217 (Continued) — Lab Sample ID: 550-84943-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.38		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	0.012	B7 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

Client Sample ID: FC-CCR-MW72-62217 — Lab Sample ID: 550-84943-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.39		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0023	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.0077		0.00050	mg/L	1		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-FD02-62217 — Lab Sample ID: 550-84943-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.40		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.0086	B7 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	0.099	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Thallium	0.0011	D1	0.00040	mg/L	4		200.8 LL	Total/NA
Hg	0.00020		0.00020	mg/L	1		245.1	Total/NA

Client Sample ID: FC-CCR-MW73-62217 — Lab Sample ID: 550-84943-18

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.25		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.029	B7 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
Selenium	0.019	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW74-62217 — Lab Sample ID: 550-84943-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.9	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.38		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0032	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Barium	0.020	B7 D1	0.0020	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.020	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium	0.060	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW75-62217 — Lab Sample ID: 550-84943-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.43		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.020	B7 D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cadmium	0.0024	D1	0.00040	mg/L	4		200.8 LL	Total/NA
Cobalt	0.048	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: APS - Four Corners CCR

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW75-62217 (Continued) — Lab Sample ID: 550-84943-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lead	0.0041	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Molybdenum	0.18	D1	0.0020		mg/L	4		200.8 LL	Total/NA
Selenium	0.0022	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: APS - Four Corners CCR

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-62217

Lab Sample ID: 550-84943-1
Date Collected: 06/22/17 13:40
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80	mg/L			06/28/17 17:45	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		06/26/17 06:58	06/30/17 01:08	1
Lithium	**0.86**		0.20	mg/L		06/26/17 06:58	06/30/17 01:08	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 14:46	1
Arsenic	**0.00067**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:46	1
Barium	**0.015**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 14:46	1
Cadmium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 14:46	1
Chromium	**0.0018**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:46	1
Cobalt	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:46	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:46	1
Molybdenum	**0.0037**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:46	1
Selenium	**0.014**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:46	1
Thallium	**0.00015**		0.00010	mg/L		06/26/17 12:20	07/07/17 14:46	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 16:22	06/27/17 15:03	1

Client Sample ID: FC-CCR-MW49A-62217

Lab Sample ID: 550-84943-2
Date Collected: 06/22/17 14:27
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			06/28/17 18:21	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		06/26/17 06:58	06/30/17 01:14	1
Lithium	**1.1**		0.20	mg/L		06/26/17 06:58	06/30/17 01:14	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 14:49	1
Arsenic	**0.0011**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:49	1
Barium	**0.021**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 14:49	1
Cadmium	**0.00024**		0.00010	mg/L		06/26/17 12:20	07/07/17 14:49	1
Chromium	**0.00088**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:49	1
Cobalt	**0.0039**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:49	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:49	1
Molybdenum	**0.025**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:49	1
Selenium	**0.0017**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:49	1
Thallium	**0.0014**		0.00010	mg/L		06/26/17 12:20	07/07/17 14:49	1

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW49A-62217

Lab Sample ID: 550-84943-2
Date Collected: 06/22/17 14:27
Matrix: Water
Date Received: 06/24/17 08:25

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:19	1

Client Sample ID: FC-CCR-MW60-62217

Lab Sample ID: 550-84943-3
Date Collected: 06/22/17 11:11
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**7.1**	**D1**	0.80	mg/L			06/28/17 18:58	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		06/26/17 06:58	06/30/17 01:02	1
Lithium	**0.78**		0.20	mg/L		06/26/17 06:58	06/30/17 01:02	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 14:51	1
Arsenic	**0.00072**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:51	1
Barium	**0.017**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 14:51	1
Cadmium	**0.00060**		0.00010	mg/L		06/26/17 12:20	07/07/17 14:51	1
Chromium	**0.0027**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:51	1
Cobalt	**0.29**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:51	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:51	1
Molybdenum	**0.17**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:51	1
Selenium	**0.00084**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:51	1
Thallium	**0.00025**		0.00010	mg/L		06/26/17 12:20	07/07/17 14:51	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:18	1

Client Sample ID: FC-CCR-MW61-62217

Lab Sample ID: 550-84943-4
Date Collected: 06/22/17 11:56
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.3**		0.40	mg/L			06/28/17 19:35	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		06/26/17 06:58	06/30/17 01:20	1
Lithium	**0.37**		0.20	mg/L		06/26/17 06:58	06/30/17 01:20	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 14:56	1
Arsenic	**0.00063**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:56	1
Barium	**0.014**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 14:56	1
Cadmium	**0.00098**		0.00010	mg/L		06/26/17 12:20	07/07/17 14:56	1

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW61-62217

Lab Sample ID: 550-84943-4
Date Collected: 06/22/17 11:56
Matrix: Water
Date Received: 06/24/17 08:25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.00052		0.00050	mg/L		06/26/17 12:20	07/07/17 14:56	1
Cobalt	0.015		0.00050	mg/L		06/26/17 12:20	07/07/17 14:56	1
Lead	0.00086		0.00050	mg/L		06/26/17 12:20	07/07/17 14:56	1
Molybdenum	0.079		0.00050	mg/L		06/26/17 12:20	07/07/17 14:56	1
Selenium	0.00076		0.00050	mg/L		06/26/17 12:20	07/07/17 14:56	1
Thallium	0.00016		0.00010	mg/L		06/26/17 12:20	07/07/17 14:56	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:22	1

Client Sample ID: FC-CCR-MW62-62117

Lab Sample ID: 550-84943-5
Date Collected: 06/21/17 09:08
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.4		0.40	mg/L			06/28/17 20:49	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		06/26/17 06:58	06/30/17 01:26	1
Lithium	ND		0.20	mg/L		06/26/17 06:58	06/30/17 01:26	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 14:58	1
Arsenic	0.00065		0.00050	mg/L		06/26/17 12:20	07/07/17 14:58	1
Barium	0.023	B7	0.00050	mg/L		06/26/17 12:20	07/07/17 14:58	1
Cadmium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 14:58	1
Chromium	0.0010		0.00050	mg/L		06/26/17 12:20	07/07/17 14:58	1
Cobalt	0.0084		0.00050	mg/L		06/26/17 12:20	07/07/17 14:58	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:58	1
Molybdenum	0.0030		0.00050	mg/L		06/26/17 12:20	07/07/17 14:58	1
Selenium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:58	1
Thallium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 14:58	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.00025		0.00020	mg/L		06/26/17 17:29	07/03/17 15:21	1

Client Sample ID: FC-CCR-MW63-62117

Lab Sample ID: 550-84943-6
Date Collected: 06/21/17 10:50
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.9		0.40	mg/L			06/28/17 21:25	1

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW63-62117

Lab Sample ID: 550-84943-6
Date Collected: 06/21/17 10:50
Matrix: Water
Date Received: 06/24/17 08:25

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		06/26/17 06:58	06/30/17 01:32	1
Lithium	ND		0.20	mg/L		06/26/17 06:58	06/30/17 01:32	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 15:01	1
Arsenic	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:01	1
Barium	**0.019**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 15:01	1
Cadmium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 15:01	1
Chromium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:01	1
Cobalt	**0.0060**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:01	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:01	1
Molybdenum	**0.0024**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:01	1
Selenium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:01	1
Thallium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 15:01	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:16	1

Client Sample ID: FC-CCR-MW64-62117

Lab Sample ID: 550-84943-7
Date Collected: 06/21/17 11:27
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.4**		0.40	mg/L			06/28/17 22:02	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		06/26/17 06:58	06/30/17 01:38	1
Lithium	ND		0.20	mg/L		06/26/17 06:58	06/30/17 01:38	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 14:40	1
Arsenic	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:40	1
Barium	**0.027**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 14:40	1
Cadmium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 14:40	1
Chromium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:40	1
Cobalt	**0.0012**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:40	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:40	1
Molybdenum	**0.0051**		0.00050	mg/L		06/26/17 12:20	07/07/17 14:40	1
Selenium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:40	1
Thallium	**0.00020**		0.00010	mg/L		06/26/17 12:20	07/07/17 14:40	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:24	1

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW65-62117

Lab Sample ID: 550-84943-8
Date Collected: 06/21/17 08:20
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.9**		0.40	mg/L			06/28/17 22:39	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		06/26/17 06:58	06/30/17 01:41	1
Lithium	ND		0.20	mg/L		06/26/17 06:58	06/30/17 01:41	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 15:03	1
Arsenic	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:03	1
Barium	**0.018**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 15:03	1
Cadmium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 15:03	1
Chromium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:03	1
Cobalt	**0.0011**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:03	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:03	1
Molybdenum	**0.0097**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:03	1
Selenium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:03	1
Thallium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 15:03	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:26	1

Client Sample ID: FC-CCR-FD01-62117

Lab Sample ID: 550-84943-9
Date Collected: 06/21/17 08:20
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**		0.40	mg/L			06/28/17 23:16	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		06/26/17 06:58	06/30/17 01:43	1
Lithium	ND		0.20	mg/L		06/26/17 06:58	06/30/17 01:43	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 15:06	1
Arsenic	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:06	1
Barium	**0.019**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 15:06	1
Cadmium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 15:06	1
Chromium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:06	1
Cobalt	**0.0011**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:06	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:06	1
Molybdenum	**0.0098**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:06	1
Selenium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:06	1
Thallium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 15:06	1

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-FD01-62117

Lab Sample ID: 550-84943-9
Date Collected: 06/21/17 08:20
Matrix: Water
Date Received: 06/24/17 08:25

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:27	1

Client Sample ID: FC-CCR-MW66-62117

Lab Sample ID: 550-84943-10
Date Collected: 06/21/17 09:44
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**24**	**D1**	2.0	mg/L			06/30/17 17:06	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		06/26/17 06:58	06/30/17 01:46	1
Lithium	**0.32**		0.20	mg/L		06/26/17 06:58	06/30/17 01:46	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		06/26/17 12:20	07/07/17 15:08	1
Arsenic	**0.0028**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:08	1
Barium	**0.022**	**B7**	0.00050	mg/L		06/26/17 12:20	07/07/17 15:08	1
Cadmium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 15:08	1
Chromium	**0.00088**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:08	1
Cobalt	**0.0074**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:08	1
Lead	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 15:08	1
Molybdenum	**0.023**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:08	1
Selenium	**0.0022**		0.00050	mg/L		06/26/17 12:20	07/07/17 15:08	1
Thallium	**0.00041**		0.00010	mg/L		06/26/17 12:20	07/07/17 15:08	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:29	1

Client Sample ID: FC-CCR-MW67-62117

Lab Sample ID: 550-84943-11
Date Collected: 06/21/17 13:26
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**21**	**D1**	2.0	mg/L			06/30/17 17:42	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		06/26/17 06:58	06/30/17 01:58	1
Lithium	**0.40**		0.20	mg/L		06/26/17 06:58	06/30/17 01:58	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0040	mg/L		06/26/17 12:20	07/08/17 11:35	4
Arsenic	**0.0020**		0.0020	mg/L		06/26/17 12:20	07/08/17 11:35	4
Barium	**0.020**	**B1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:35	4
Cadmium	ND		0.00040	mg/L		06/26/17 12:20	07/08/17 11:35	4

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW67-62117

Lab Sample ID: 550-84943-11
Date Collected: 06/21/17 13:26
Matrix: Water
Date Received: 06/24/17 08:25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0020	mg/L		06/26/17 12:20	07/08/17 11:35	4
Cobalt	**0.0049**		0.0020	mg/L		06/26/17 12:20	07/08/17 11:35	4
Lead	ND		0.0020	mg/L		06/26/17 12:20	07/08/17 11:35	4
Molybdenum	**0.039**		0.0020	mg/L		06/26/17 12:20	07/08/17 11:35	4
Selenium	**0.024**		0.0020	mg/L		06/26/17 12:20	07/08/17 11:35	4
Thallium	**0.00057**		0.00040	mg/L		06/26/17 12:20	07/08/17 11:35	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:30	1

Client Sample ID: FC-CCR-MW68-62117

Lab Sample ID: 550-84943-12
Date Collected: 06/21/17 14:08
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**8.7**	**D1**	2.0	mg/L			06/30/17 19:17	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		06/26/17 06:58	06/30/17 02:03	1
Lithium	**0.33**		0.20	mg/L		06/26/17 06:58	06/30/17 02:03	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		06/26/17 12:20	07/08/17 11:37	4
Arsenic	**0.0079**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:37	4
Barium	**0.0075**		0.00050	mg/L		07/14/17 07:38	07/16/17 15:27	1
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:37	4
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:37	4
Cobalt	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:37	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:37	4
Molybdenum	**0.0051**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:37	4
Selenium	**0.28**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:37	4
Thallium	**0.00065**	**D1**	0.00040	mg/L		06/26/17 12:20	07/08/17 11:37	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:35	1

Client Sample ID: FC-CCR-MW69-62117

Lab Sample ID: 550-84943-13
Date Collected: 06/21/17 12:44
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**14**	**D1**	2.0	mg/L			06/30/17 19:54	5

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW69-62117

Lab Sample ID: 550-84943-13
Date Collected: 06/21/17 12:44
Matrix: Water
Date Received: 06/24/17 08:25

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		06/26/17 06:58	06/30/17 02:09	1
Lithium	**0.36**		0.20	mg/L		06/26/17 06:58	06/30/17 02:09	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		06/26/17 12:20	07/08/17 11:39	4
Arsenic	**0.0063**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:39	4
Barium	**0.016**	**B7 D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:39	4
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:39	4
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:39	4
Cobalt	**0.0041**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:39	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:39	4
Molybdenum	**0.017**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:39	4
Selenium	**0.017**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:39	4
Thallium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:39	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:38	1

Client Sample ID: FC-CCR-MW70-62117

Lab Sample ID: 550-84943-14
Date Collected: 06/21/17 12:05
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.9**	**D1**	0.80	mg/L			06/30/17 20:31	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		06/26/17 06:58	06/30/17 02:15	1
Lithium	**0.32**		0.20	mg/L		06/26/17 06:58	06/30/17 02:15	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		06/26/17 12:20	07/08/17 11:42	4
Arsenic	**0.0049**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:42	4
Barium	**0.014**	**B7 D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:42	4
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:42	4
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:42	4
Cobalt	**0.0075**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:42	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:42	4
Molybdenum	**0.0088**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:42	4
Selenium	**0.18**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:42	4
Thallium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:42	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:40	1

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW71-62217

Lab Sample ID: 550-84943-15
Date Collected: 06/22/17 08:43
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			06/30/17 21:08	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		06/26/17 06:58	06/30/17 02:21	1
Lithium	**0.38**		0.20	mg/L		06/26/17 06:58	06/30/17 02:21	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		06/26/17 12:20	07/08/17 11:44	4
Arsenic	**0.0063**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:44	4
Barium	**0.012**	**B7 D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:44	4
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:44	4
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:44	4
Cobalt	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:44	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:44	4
Molybdenum	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:44	4
Selenium	**0.25**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:44	4
Thallium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:44	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:41	1

Client Sample ID: FC-CCR-MW72-62217

Lab Sample ID: 550-84943-16
Date Collected: 06/22/17 07:59
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			06/30/17 22:21	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		06/26/17 06:58	06/30/17 02:27	1
Lithium	**0.39**		0.20	mg/L		06/26/17 06:58	06/30/17 02:27	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		06/26/17 12:20	07/08/17 11:49	4
Arsenic	**0.0023**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:49	4
Barium	**0.0077**		0.00050	mg/L		07/14/17 07:38	07/16/17 15:30	1
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:49	4
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:49	4
Cobalt	**0.0025**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:49	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:49	4
Molybdenum	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:49	4
Selenium	**0.10**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:49	4
Thallium	**0.0010**	**D1**	0.00040	mg/L		06/26/17 12:20	07/08/17 11:49	4

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW72-62217
Lab Sample ID: 550-84943-16
Date Collected: 06/22/17 07:59
Matrix: Water
Date Received: 06/24/17 08:25

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:43	1

Client Sample ID: FC-CCR-FD02-62217
Lab Sample ID: 550-84943-17
Date Collected: 06/22/17 07:59
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			06/30/17 22:58	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		06/26/17 06:58	06/30/17 02:33	1
Lithium	**0.40**		0.20	mg/L		06/26/17 06:58	06/30/17 02:33	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		06/26/17 12:20	07/08/17 11:51	4
Arsenic	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:51	4
Barium	**0.0086**	**B7 D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:51	4
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:51	4
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:51	4
Cobalt	**0.0025**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:51	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:51	4
Molybdenum	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:51	4
Selenium	**0.099**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:51	4
Thallium	**0.0011**	**D1**	0.00040	mg/L		06/26/17 12:20	07/08/17 11:51	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	**0.00020**		0.00020	mg/L		06/26/17 17:29	07/03/17 15:44	1

Client Sample ID: FC-CCR-MW73-62217
Lab Sample ID: 550-84943-18
Date Collected: 06/22/17 09:24
Matrix: Water
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80	mg/L			06/30/17 23:35	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		06/26/17 06:58	06/30/17 02:39	1
Lithium	**0.25**		0.20	mg/L		06/26/17 06:58	06/30/17 02:39	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		06/26/17 12:20	07/08/17 11:54	4
Arsenic	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:54	4
Barium	**0.029**	**B7 D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:54	4
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:54	4

Client Sample ID: FC-CCR-MW73-62217 — Lab Sample ID: 550-84943-18

Date Collected: 06/22/17 09:24 — **Matrix: Water**
Date Received: 06/24/17 08:25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:54	4
Cobalt	**0.0066**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:54	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:54	4
Molybdenum	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:54	4
Selenium	**0.019**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:54	4
Thallium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:54	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:46	1

Client Sample ID: FC-CCR-MW74-62217 — Lab Sample ID: 550-84943-19

Date Collected: 06/22/17 10:04 — **Matrix: Water**
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.9**	**D1**	0.80	mg/L			07/01/17 00:12	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		06/26/17 06:58	06/30/17 02:45	1
Lithium	**0.38**		0.20	mg/L		06/26/17 06:58	06/30/17 02:45	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		06/26/17 12:20	07/08/17 11:56	4
Arsenic	**0.0032**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:56	4
Barium	**0.020**	**B7 D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:56	4
Cadmium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:56	4
Chromium	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:56	4
Cobalt	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:56	4
Lead	ND	D1	0.0020	mg/L		06/26/17 12:20	07/08/17 11:56	4
Molybdenum	**0.020**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:56	4
Selenium	**0.060**	**D1**	0.0020	mg/L		06/26/17 12:20	07/08/17 11:56	4
Thallium	ND	D1	0.00040	mg/L		06/26/17 12:20	07/08/17 11:56	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 17:29	07/03/17 15:48	1

Client Sample ID: FC-CCR-MW75-62217 — Lab Sample ID: 550-84943-20

Date Collected: 06/22/17 12:38 — **Matrix: Water**
Date Received: 06/24/17 08:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			07/01/17 00:48	5

Client Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW75-62217

Lab Sample ID: 550-84943-20

Date Collected: 06/22/17 12:38
Matrix: Water
Date Received: 06/24/17 08:25

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		06/26/17 06:58	06/30/17 02:51	1
Lithium	**0.43**		0.20		mg/L		06/26/17 06:58	06/30/17 02:51	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		06/26/17 12:20	07/08/17 11:59	4
Arsenic	ND	D1	0.0020		mg/L		06/26/17 12:20	07/08/17 11:59	4
Barium	**0.020**	**B7 D1**	0.0020		mg/L		06/26/17 12:20	07/08/17 11:59	4
Cadmium	**0.0024**	**D1**	0.00040		mg/L		06/26/17 12:20	07/08/17 11:59	4
Chromium	ND	D1	0.0020		mg/L		06/26/17 12:20	07/08/17 11:59	4
Cobalt	**0.048**	**D1**	0.0020		mg/L		06/26/17 12:20	07/08/17 11:59	4
Lead	**0.0041**	**D1**	0.0020		mg/L		06/26/17 12:20	07/08/17 11:59	4
Molybdenum	**0.18**	**D1**	0.0020		mg/L		06/26/17 12:20	07/08/17 11:59	4
Selenium	**0.0022**	**D1**	0.0020		mg/L		06/26/17 12:20	07/08/17 11:59	4
Thallium	ND	D1	0.00040		mg/L		06/26/17 12:20	07/08/17 11:59	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		06/26/17 17:29	07/03/17 15:49	1

QC Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-121222/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121222

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			06/28/17 12:13	1

Lab Sample ID: LCS 550-121222/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121222

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.27		mg/L		107	90 - 110		

Lab Sample ID: LCSD 550-121222/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121222

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.27		mg/L		107	90 - 110	0	20

Lab Sample ID: 550-85019-E-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121222

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	ND		4.00	4.34		mg/L		100	80 - 120		

Lab Sample ID: 550-85019-E-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121222

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND		4.00	4.61		mg/L		106	80 - 120	6	20

Lab Sample ID: MB 550-121501/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121501

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			06/30/17 13:25	1

Lab Sample ID: LCS 550-121501/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121501

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.27		mg/L		107	90 - 110		

Lab Sample ID: LCSD 550-121501/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121501

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.30		mg/L		107	90 - 110	1	20

QC Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Lab Sample ID: 550-85235-A-1 MS
Matrix: Water
Analysis Batch: 121501

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	5.6		4.00	9.21		mg/L		91	80 - 120		

Lab Sample ID: 550-85235-A-1 MSD
Matrix: Water
Analysis Batch: 121501

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	5.6		4.00	9.27		mg/L		93	80 - 120	1	20

Lab Sample ID: MB 550-121601/2
Matrix: Water
Analysis Batch: 121601

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			07/03/17 17:36	1

Lab Sample ID: LCS 550-121601/5
Matrix: Water
Analysis Batch: 121601

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.26		mg/L		106	90 - 110		

Lab Sample ID: LCSD 550-121601/6
Matrix: Water
Analysis Batch: 121601

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.26		mg/L		107	90 - 110	0	20

Lab Sample ID: 550-85033-A-1 MS
Matrix: Water
Analysis Batch: 121601

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	16	M3	4.00	19.5	M3	mg/L		85	80 - 120		

Lab Sample ID: 550-85033-A-1 MSD
Matrix: Water
Analysis Batch: 121601

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	16	M3	4.00	19.5	M3	mg/L		83	80 - 120	0	20

QC Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-120825/1-A
Matrix: Water
Analysis Batch: 121350

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120825

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		06/26/17 06:58	06/30/17 00:42	1
Lithium	ND		0.20		mg/L		06/26/17 06:58	06/30/17 00:42	1

Lab Sample ID: LCS 550-120825/2-A
Matrix: Water
Analysis Batch: 121350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 120825

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium			1.00	1.07		mg/L		107	85 - 115		
Lithium			1.00	1.06		mg/L		106	85 - 115		

Lab Sample ID: LCSD 550-120825/3-A
Matrix: Water
Analysis Batch: 121350

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 120825

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	1.06		mg/L		106	85 - 115	1	20
Lithium			1.00	1.05		mg/L		105	85 - 115	1	20

Lab Sample ID: 550-84943-3 MS
Matrix: Water
Analysis Batch: 121350

Client Sample ID: FC-CCR-MW60-62217
Prep Type: Total/NA
Prep Batch: 120825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium	ND		1.00	1.01		mg/L		101	70 - 130		
Lithium	0.78		1.00	1.80		mg/L		103	70 - 130		

Lab Sample ID: 550-84943-3 MSD
Matrix: Water
Analysis Batch: 121350

Client Sample ID: FC-CCR-MW60-62217
Prep Type: Total/NA
Prep Batch: 120825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND		1.00	1.02		mg/L		102	70 - 130	1	20
Lithium	0.78		1.00	1.81		mg/L		103	70 - 130	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-120876/1-A
Matrix: Water
Analysis Batch: 121880

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 120876

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		06/26/17 12:20	07/07/17 14:33	1
Arsenic	ND		0.00050		mg/L		06/26/17 12:20	07/07/17 14:33	1
Barium	0.000842	B1	0.00050		mg/L		06/26/17 12:20	07/07/17 14:33	1
Cadmium	ND		0.00010		mg/L		06/26/17 12:20	07/07/17 14:33	1
Chromium	ND		0.00050		mg/L		06/26/17 12:20	07/07/17 14:33	1
Cobalt	ND		0.00050		mg/L		06/26/17 12:20	07/07/17 14:33	1
Lead	ND		0.00050		mg/L		06/26/17 12:20	07/07/17 14:33	1

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

Lab Sample ID: MB 550-120876/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121880 — **Prep Batch: 120876**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:33	1
Selenium	ND		0.00050	mg/L		06/26/17 12:20	07/07/17 14:33	1
Thallium	ND		0.00010	mg/L		06/26/17 12:20	07/07/17 14:33	1

Lab Sample ID: LCS 550-120876/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121880 — **Prep Batch: 120876**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.105		mg/L		105	85 - 115
Arsenic	0.100	0.106		mg/L		106	85 - 115
Barium	0.100	0.107		mg/L		107	85 - 115
Cadmium	0.100	0.106		mg/L		106	85 - 115
Chromium	0.100	0.106		mg/L		106	85 - 115
Cobalt	0.100	0.105		mg/L		105	85 - 115
Lead	0.100	0.106		mg/L		106	85 - 115
Molybdenum	0.100	0.107		mg/L		107	85 - 115
Selenium	0.100	0.104		mg/L		104	85 - 115
Thallium	0.100	0.105		mg/L		105	85 - 115

Lab Sample ID: LCSD 550-120876/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121880 — **Prep Batch: 120876**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.105		mg/L		105	85 - 115	1	20
Arsenic	0.100	0.105		mg/L		105	85 - 115	1	20
Barium	0.100	0.106		mg/L		106	85 - 115	1	20
Cadmium	0.100	0.105		mg/L		105	85 - 115	1	20
Chromium	0.100	0.105		mg/L		105	85 - 115	1	20
Cobalt	0.100	0.105		mg/L		105	85 - 115	0	20
Lead	0.100	0.107		mg/L		107	85 - 115	0	20
Molybdenum	0.100	0.106		mg/L		106	85 - 115	0	20
Selenium	0.100	0.104		mg/L		104	85 - 115	0	20
Thallium	0.100	0.105		mg/L		105	85 - 115	0	20

Lab Sample ID: 550-84943-7 MSD — **Client Sample ID: FC-CCR-MW64-62117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121880 — **Prep Batch: 120876**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		0.100	0.108		mg/L		108	70 - 130	1	20
Arsenic	ND		0.100	0.109		mg/L		109	70 - 130	0	20
Barium	0.027	B7	0.100	0.132		mg/L		105	70 - 130	1	20
Cadmium	ND		0.100	0.102		mg/L		102	70 - 130	2	20
Chromium	ND		0.100	0.104		mg/L		104	70 - 130	1	20
Cobalt	0.0012		0.100	0.101		mg/L		100	70 - 130	1	20
Lead	ND		0.100	0.0990		mg/L		99	70 - 130	1	20
Molybdenum	0.0051		0.100	0.114		mg/L		109	70 - 130	1	20

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

Lab Sample ID: 550-84943-7 MSD — **Client Sample ID: FC-CCR-MW64-62117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121880 — **Prep Batch: 120876**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	ND		0.100	0.107		mg/L		107	70 - 130	2	20
Thallium	0.00020		0.100	0.0981		mg/L		98	70 - 130	1	20

Lab Sample ID: MB 550-122290/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 122409 — **Prep Batch: 122290**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.00050		mg/L		07/14/17 07:38	07/16/17 15:04	1

Lab Sample ID: LCS 550-122290/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 122409 — **Prep Batch: 122290**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Barium			0.100	0.108		mg/L		108	85 - 115		

Lab Sample ID: LCSD 550-122290/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 122409 — **Prep Batch: 122290**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium			0.100	0.107		mg/L		107	85 - 115	1	20

Lab Sample ID: 550-85019-D-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 122409 — **Prep Batch: 122290**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Barium	0.12		0.100	0.227		mg/L		103	70 - 130		

Lab Sample ID: 550-85019-D-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 122409 — **Prep Batch: 122290**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.12		0.100	0.225		mg/L		101	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-120913/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121554 — **Prep Batch: 120913**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		06/26/17 17:29	07/03/17 15:08	1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 550-120913/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121554 — **Prep Batch: 120913**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.0100	0.0103		mg/L		103	85 - 115

Lab Sample ID: LCSD 550-120913/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121554 — **Prep Batch: 120913**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.0100	0.0107		mg/L		107	85 - 115	5	20

Lab Sample ID: 550-84943-6 MS — **Client Sample ID: FC-CCR-MW63-62117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121554 — **Prep Batch: 120913**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND		0.0100	0.00988		mg/L		99	70 - 130

Lab Sample ID: 550-84943-6 MSD — **Client Sample ID: FC-CCR-MW63-62117**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121554 — **Prep Batch: 120913**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00987		mg/L		99	70 - 130	0	20

Lab Sample ID: MB 550-121069/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121070 — **Prep Batch: 121069**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		06/26/17 16:22	06/27/17 14:24	1

Lab Sample ID: LCS 550-121069/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121070 — **Prep Batch: 121069**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.0100	0.00993		mg/L		99	85 - 115

Lab Sample ID: LCSD 550-121069/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121070 — **Prep Batch: 121069**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.0100	0.0114		mg/L		114	85 - 115	14	20

Lab Sample ID: 550-84773-B-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 121070 — **Prep Batch: 121069**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND		0.0100	0.00974		mg/L		97	70 - 130

QC Sample Results

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Lab Sample ID: 550-84773-B-1-E MSD
Matrix: Water
Analysis Batch: 121070

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 121069

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00977		mg/L		98	70 - 130	0	20

QC Association Summary

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

HPLC/IC

Analysis Batch: 121222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	300.0	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	300.0	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	300.0	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	300.0	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	300.0	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	300.0	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	300.0	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	300.0	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	300.0	
MB 550-121222/2	Method Blank	Total/NA	Water	300.0	
LCS 550-121222/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-121222/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-85019-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-85019-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 121501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	300.0	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	300.0	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	300.0	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	300.0	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	300.0	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	300.0	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	300.0	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	300.0	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	300.0	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	300.0	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	300.0	
MB 550-121501/2	Method Blank	Total/NA	Water	300.0	
LCS 550-121501/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-121501/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-85235-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-85235-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 121601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-121601/2	Method Blank	Total/NA	Water	300.0	
LCS 550-121601/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-121601/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-85033-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-85033-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 120825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	200.7	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	200.7	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	200.7	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 120825 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	200.7	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	200.7	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	200.7	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	200.7	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	200.7	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	200.7	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	200.7	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.7	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	200.7	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	200.7	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	200.7	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.7	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	200.7	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	200.7	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	200.7	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	200.7	
MB 550-120825/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-120825/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-120825/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-84943-3 MS	FC-CCR-MW60-62217	Total/NA	Water	200.7	
550-84943-3 MSD	FC-CCR-MW60-62217	Total/NA	Water	200.7	

Prep Batch: 120876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	200.8	
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	200.8	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	200.8	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	200.8	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	200.8	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	200.8	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	200.8	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	200.8	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	200.8	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	200.8	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	200.8	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.8	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	200.8	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	200.8	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	200.8	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.8	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	200.8	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	200.8	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	200.8	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	200.8	
MB 550-120876/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-120876/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-120876/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-84943-7 MS	FC-CCR-MW64-62117	Total/NA	Water	200.8	
550-84943-7 MSD	FC-CCR-MW64-62117	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 120913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	245.1	
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	245.1	
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	245.1	
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	245.1	
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	245.1	
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	245.1	
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	245.1	
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	245.1	
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	245.1	
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	245.1	
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	245.1	
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	245.1	
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	245.1	
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	245.1	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	245.1	
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	245.1	
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	245.1	
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	245.1	
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	245.1	
MB 550-120913/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-120913/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-120913/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-84943-6 MS	FC-CCR-MW63-62117	Total/NA	Water	245.1	
550-84943-6 MSD	FC-CCR-MW63-62117	Total/NA	Water	245.1	

Prep Batch: 121069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	245.1	
MB 550-121069/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-121069/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-121069/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-84773-B-1-D MS	Matrix Spike	Total/NA	Water	245.1	
550-84773-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 121070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	245.1	121069
MB 550-121069/1-A	Method Blank	Total/NA	Water	245.1	121069
LCS 550-121069/2-A	Lab Control Sample	Total/NA	Water	245.1	121069
LCSD 550-121069/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	121069
550-84773-B-1-D MS	Matrix Spike	Total/NA	Water	245.1	121069
550-84773-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	121069

Analysis Batch: 121350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	200.7 Rev 4.4	120825

Metals (Continued)

Analysis Batch: 121350 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	200.7 Rev 4.4	120825
MB 550-120825/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	120825
LCS 550-120825/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	120825
LCSD 550-120825/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-3 MS	FC-CCR-MW60-62217	Total/NA	Water	200.7 Rev 4.4	120825
550-84943-3 MSD	FC-CCR-MW60-62217	Total/NA	Water	200.7 Rev 4.4	120825

Analysis Batch: 121554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	245.1	120913
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	245.1	120913
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	245.1	120913
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	245.1	120913
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	245.1	120913
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	245.1	120913
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	245.1	120913
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	245.1	120913
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	245.1	120913
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	245.1	120913
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	245.1	120913
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	245.1	120913
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	245.1	120913
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	245.1	120913
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	245.1	120913
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	245.1	120913
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	245.1	120913
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	245.1	120913
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	245.1	120913
MB 550-120913/1-A	Method Blank	Total/NA	Water	245.1	120913
LCS 550-120913/2-A	Lab Control Sample	Total/NA	Water	245.1	120913
LCSD 550-120913/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	120913
550-84943-6 MS	FC-CCR-MW63-62117	Total/NA	Water	245.1	120913
550-84943-6 MSD	FC-CCR-MW63-62117	Total/NA	Water	245.1	120913

Analysis Batch: 121880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-1	FC-CCR-MW7-62217	Total/NA	Water	200.8 LL	120876
550-84943-2	FC-CCR-MW49A-62217	Total/NA	Water	200.8 LL	120876

Metals (Continued)

Analysis Batch: 121880 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-3	FC-CCR-MW60-62217	Total/NA	Water	200.8 LL	120876
550-84943-4	FC-CCR-MW61-62217	Total/NA	Water	200.8 LL	120876
550-84943-5	FC-CCR-MW62-62117	Total/NA	Water	200.8 LL	120876
550-84943-6	FC-CCR-MW63-62117	Total/NA	Water	200.8 LL	120876
550-84943-7	FC-CCR-MW64-62117	Total/NA	Water	200.8 LL	120876
550-84943-8	FC-CCR-MW65-62117	Total/NA	Water	200.8 LL	120876
550-84943-9	FC-CCR-FD01-62117	Total/NA	Water	200.8 LL	120876
550-84943-10	FC-CCR-MW66-62117	Total/NA	Water	200.8 LL	120876
MB 550-120876/1-A	Method Blank	Total/NA	Water	200.8 LL	120876
LCS 550-120876/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	120876
LCSD 550-120876/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	120876
550-84943-7 MS	FC-CCR-MW64-62117	Total/NA	Water	200.8 LL	120876
550-84943-7 MSD	FC-CCR-MW64-62117	Total/NA	Water	200.8 LL	120876

Analysis Batch: 121886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-11	FC-CCR-MW67-62117	Total/NA	Water	200.8 LL	120876
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.8 LL	120876
550-84943-13	FC-CCR-MW69-62117	Total/NA	Water	200.8 LL	120876
550-84943-14	FC-CCR-MW70-62117	Total/NA	Water	200.8 LL	120876
550-84943-15	FC-CCR-MW71-62217	Total/NA	Water	200.8 LL	120876
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.8 LL	120876
550-84943-17	FC-CCR-FD02-62217	Total/NA	Water	200.8 LL	120876
550-84943-18	FC-CCR-MW73-62217	Total/NA	Water	200.8 LL	120876
550-84943-19	FC-CCR-MW74-62217	Total/NA	Water	200.8 LL	120876
550-84943-20	FC-CCR-MW75-62217	Total/NA	Water	200.8 LL	120876

Prep Batch: 122290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.8	
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.8	
MB 550-122290/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-122290/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-122290/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-85019-D-1-C MS	Matrix Spike	Total/NA	Water	200.8	
550-85019-D-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 122409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-84943-12	FC-CCR-MW68-62117	Total/NA	Water	200.8 LL	122290
550-84943-16	FC-CCR-MW72-62217	Total/NA	Water	200.8 LL	122290
MB 550-122290/1-A	Method Blank	Total/NA	Water	200.8 LL	122290
LCS 550-122290/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	122290
LCSD 550-122290/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	122290
550-85019-D-1-C MS	Matrix Spike	Total/NA	Water	200.8 LL	122290
550-85019-D-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	122290

Lab Chronicle

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW7-62217 — Lab Sample ID: 550-84943-1

Date Collected: 06/22/17 13:40 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121222	06/28/17 17:45	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:08	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 14:46	TEK	TAL PHX
Total/NA	Prep	245.1			121069	06/26/17 16:22	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121070	06/27/17 15:03	JTG	TAL PHX

Client Sample ID: FC-CCR-MW49A-62217 — Lab Sample ID: 550-84943-2

Date Collected: 06/22/17 14:27 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121222	06/28/17 18:21	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:14	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 14:49	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:19	JTG	TAL PHX

Client Sample ID: FC-CCR-MW60-62217 — Lab Sample ID: 550-84943-3

Date Collected: 06/22/17 11:11 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121222	06/28/17 18:58	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:02	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 14:51	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:18	JTG	TAL PHX

Client Sample ID: FC-CCR-MW61-62217 — Lab Sample ID: 550-84943-4

Date Collected: 06/22/17 11:56 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 19:35	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:20	CJM	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW61-62217 — Lab Sample ID: 550-84943-4

Date Collected: 06/22/17 11:56 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 14:56	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:22	JTG	TAL PHX

Client Sample ID: FC-CCR-MW62-62117 — Lab Sample ID: 550-84943-5

Date Collected: 06/21/17 09:08 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 20:49	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:26	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 14:58	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:21	JTG	TAL PHX

Client Sample ID: FC-CCR-MW63-62117 — Lab Sample ID: 550-84943-6

Date Collected: 06/21/17 10:50 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 21:25	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:32	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 15:01	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:16	JTG	TAL PHX

Client Sample ID: FC-CCR-MW64-62117 — Lab Sample ID: 550-84943-7

Date Collected: 06/21/17 11:27 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 22:02	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:38	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 14:40	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:24	JTG	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW65-62117 — Lab Sample ID: 550-84943-8

Date Collected: 06/21/17 08:20 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 22:39	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:41	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 15:03	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:26	JTG	TAL PHX

Client Sample ID: FC-CCR-FD01-62117 — Lab Sample ID: 550-84943-9

Date Collected: 06/21/17 08:20 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	121222	06/28/17 23:16	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:43	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 15:06	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:27	JTG	TAL PHX

Client Sample ID: FC-CCR-MW66-62117 — Lab Sample ID: 550-84943-10

Date Collected: 06/21/17 09:44 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 17:06	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:46	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	121880	07/07/17 15:08	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:29	JTG	TAL PHX

Client Sample ID: FC-CCR-MW67-62117 — Lab Sample ID: 550-84943-11

Date Collected: 06/21/17 13:26 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 17:42	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 01:58	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX

Client Sample ID: FC-CCR-MW67-62117 — Lab Sample ID: 550-84943-11

Date Collected: 06/21/17 13:26 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:35	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:30	JTG	TAL PHX

Client Sample ID: FC-CCR-MW68-62117 — Lab Sample ID: 550-84943-12

Date Collected: 06/21/17 14:08 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 19:17	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:03	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:37	TEK	TAL PHX
Total/NA	Prep	200.8			122290	07/14/17 07:38	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	122409	07/16/17 15:27	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:35	JTG	TAL PHX

Client Sample ID: FC-CCR-MW69-62117 — Lab Sample ID: 550-84943-13

Date Collected: 06/21/17 12:44 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 19:54	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:09	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:39	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:38	JTG	TAL PHX

Client Sample ID: FC-CCR-MW70-62117 — Lab Sample ID: 550-84943-14

Date Collected: 06/21/17 12:05 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121501	06/30/17 20:31	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:15	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:42	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW70-62117 — Lab Sample ID: 550-84943-14

Date Collected: 06/21/17 12:05 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	245.1		1	121554	07/03/17 15:40	JTG	TAL PHX

Client Sample ID: FC-CCR-MW71-62217 — Lab Sample ID: 550-84943-15

Date Collected: 06/22/17 08:43 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 21:08	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:21	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:44	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:41	JTG	TAL PHX

Client Sample ID: FC-CCR-MW72-62217 — Lab Sample ID: 550-84943-16

Date Collected: 06/22/17 07:59 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 22:21	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:27	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:49	TEK	TAL PHX
Total/NA	Prep	200.8			122290	07/14/17 07:38	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	122409	07/16/17 15:30	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:43	JTG	TAL PHX

Client Sample ID: FC-CCR-FD02-62217 — Lab Sample ID: 550-84943-17

Date Collected: 06/22/17 07:59 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	06/30/17 22:58	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:33	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:51	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:44	JTG	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-84943-2
SDG: Cholla

Client Sample ID: FC-CCR-MW73-62217 — Lab Sample ID: 550-84943-18

Date Collected: 06/22/17 09:24 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121501	06/30/17 23:35	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:39	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:54	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:46	JTG	TAL PHX

Client Sample ID: FC-CCR-MW74-62217 — Lab Sample ID: 550-84943-19

Date Collected: 06/22/17 10:04 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	121501	07/01/17 00:12	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:45	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:56	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:48	JTG	TAL PHX

Client Sample ID: FC-CCR-MW75-62217 — Lab Sample ID: 550-84943-20

Date Collected: 06/22/17 12:38 — **Matrix: Water**
Date Received: 06/24/17 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	121501	07/01/17 00:48	JAE	TAL PHX
Total/NA	Prep	200.7			120825	06/26/17 06:58	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	121350	06/30/17 02:51	CJM	TAL PHX
Total/NA	Prep	200.8			120876	06/26/17 12:20	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	121886	07/08/17 11:59	TEK	TAL PHX
Total/NA	Prep	245.1			120913	06/26/17 17:29	JTG	TAL PHX
Total/NA	Analysis	245.1		1	121554	07/03/17 15:49	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: APS - Four Corners CCR

TestAmerica Job ID: 550-84943-2
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: APS - Four Corners CCR

TestAmerica Job ID: 550-84943-2
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

~~84 9447~~ JKR

84943-2

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

Client Contact	Doug Lavarnway	Doug Lavarnway	6/24/2017
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:
FC-CCR-MW7-62217	6/22/2017	1340	G	W	2	N	x	x	x	x	x	-01
FC-CCR-MW49A-62217	6/22/2017	1427	G	W	2	N	x	x	x	x	x	-02
FC-CCR-MW60-62217	6/22/2017	1111	G	W	2	N	x	x	x	x	x	-03
FC-CCR-MW61-62217	6/22/2017	1156	G	W	2	N	x	x	x	x	x	-04
FC-CCR-MW62-62117	6/21/2017	908	G	W	2	N	x	x	x	x	x	-05
FC-CCR-MW63-62117	6/21/2017	1050	G	W	2	N	x	x	x	x	x	-06
FC-CCR-MW64-62117	6/21/2017	1127	G	W	2	N	x	x	x	x	x	-07
FC-CCR-MW65-62117	6/21/2017	820	G	W	2	N	x	x	x	x	x	-08
FC-CCR-FD01-62117	6/21/2017	820	G	W	2	N	x	x	x	x	x	-09

550-84944 Chain of Custody

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.

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

Special Instructions/QC Requirements & Comments:

(1.1°C, 0.6°C, 1.3°C, 1.0°C) PC

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Doug Lavarnway	APS	6/23 1100	O Rogers	Rod J	6/23/17 11am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 6-24-17 0525

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

7/20/2017

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

Chain of Custody Record

~~84944~~ JKR
84943-2

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

Client Contact	Doug Lavarnway	Doug Lavarnway	6/24/2017
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:
FC-CCR-MW66-62117	6/21/2017	944	G	W	2	N	x	x	x	x	x	-10
FC-CCR-MW67-62117	6/21/2017	1326	G	W	2	N	x	x	x	x	x	-11
FC-CCR-MW68-62117	6/21/2017	1408	G	W	2	N	x	x	x	x	x	-12
FC-CCR-MW69-62117	6/21/2017	1244	G	W	2	N	x	x	x	x	x	-13
FC-CCR-MW70-62117	6/21/2017	1205	G	W	2	N	x	x	x	x	x	-14
FC-CCR-MW71-62217	6/22/2017	843	G	W	2	N	x	x	x	x	x	-15
FC-CCR-MW72-62217	6/22/2017	759	G	W	2	N	x	x	x	x	x	-16
FC-CCR-FD02-62217	6/22/2017	759	G	W	2	N	x	x	x	x	x	-17
FC-CCR-MW73-62217	6/22/2017	924	G	W	2	N	x	x	x	x	x	-18
FC-CCR-MW74-62217	6/22/2017	1004	G	W	2	N	x	x	x	x	x	-19
FC-CCR-MW75-62217	6/22/2017	1238	G	W	2	N	x	x	x	x	x	-20

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.

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

Special Instructions/QC Requirements & Comments:

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Doug Lavarnway	APS	6/22 1100	D Rogers	Rad J	6/23/17 11am
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 6-24-17 0825

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-84943-2
SDG Number: Cholla

Login Number: 84943
List Number: 1
Creator: Doerr, Bret C

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	