TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 550-87922-2
Client Project/Site: Four Corners CCR
Revision: 1

For:
Arizona Public Service Company
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Joseph City, Arizona 86032

Attn: Doug Lavarnway

Authorized for release by:
9/28/2017 12:58:46 PM

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

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Definitions/Glossary

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

TestAmerica Job ID: 550-87922-2

Qualifiers

HPLC/IC

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

Metals

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-87922-2

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-87922-2

Comments
No additional comments.

Receipt
The samples were received on 8/11/2017 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.5º C, 2.6º C, 3.3º C and 4.6º C.

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

Metals
Method(s) 200.8 LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: FC-CCR-MW49A-81017 (550-87922-2), FC-CCR-MW66-8917 (550-87922-9), FC-CCR-MW67-8917 (550-87922-10), FC-CCR-MW68-8917 (550-87922-11), FC-CCR-MW69-8917 (550-87922-12), FC-CCR-FD01-8917 (550-87922-13), FC-CCR-MW70-8917 (550-87922-14), FC-CCR-MW71-81017 (550-87922-15), FC-CCR-FD02-81017 (550-87922-17), FC-CCR-MW73-81017 (550-87922-18), FC-CCR-MW74-81017 (550-87922-19) and FC-CCR-MW75-81017 (550-87922-20).

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

Sample Summary

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

TestAmerica Job ID: 550-87922-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-87922-1	FC-CCR-MW7-81017	Water	08/10/17 15:41	08/11/17 15:15
550-87922-2	FC-CCR-MW49A-81017	Water	08/10/17 16:30	08/11/17 15:15
550-87922-3	FC-CCR-MW60-81017	Water	08/10/17 14:57	08/11/17 15:15
550-87922-4	FC-CCR-MW61-81017	Water	08/10/17 13:34	08/11/17 15:15
550-87922-5	FC-CCR-MW62-8917	Water	08/09/17 15:31	08/11/17 15:15
550-87922-6	FC-CCR-MW63-8917	Water	08/09/17 16:20	08/11/17 15:15
550-87922-7	FC-CCR-MW64-8917	Water	08/09/17 16:57	08/11/17 15:15
550-87922-8	FC-CCR-MW65-8917	Water	08/09/17 14:08	08/11/17 15:15
550-87922-9	FC-CCR-MW66-8917	Water	08/09/17 14:54	08/11/17 15:15
550-87922-10	FC-CCR-MW67-8917	Water	08/09/17 12:05	08/11/17 15:15
550-87922-11	FC-CCR-MW68-8917	Water	08/09/17 12:50	08/11/17 15:15
550-87922-12	FC-CCR-MW69-8917	Water	08/09/17 10:49	08/11/17 15:15
550-87922-13	FC-CCR-FD01-8917	Water	08/09/17 10:49	08/11/17 15:15
550-87922-14	FC-CCR-MW70-8917	Water	08/09/17 17:28	08/11/17 15:15
550-87922-15	FC-CCR-MW71-81017	Water	08/10/17 10:37	08/11/17 15:15
550-87922-16	FC-CCR-MW72-81017	Water	08/10/17 09:35	08/11/17 15:15
550-87922-17	FC-CCR-FD02-81017	Water	08/10/17 09:35	08/11/17 15:15
550-87922-18	FC-CCR-MW73-81017	Water	08/10/17 11:23	08/11/17 15:15
550-87922-19	FC-CCR-MW74-81017	Water	08/10/17 12:07	08/11/17 15:15
550-87922-20	FC-CCR-MW75-81017	Water	08/10/17 14:16	08/11/17 15:15

Detection Summary

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW7-81017 — Lab Sample ID: 550-87922-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.90		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.00066		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.016	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Chromium	0.0017		0.0010	mg/L	1		200.8 LL	Total/NA
Selenium	0.015		0.00050	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW49A-81017 — Lab Sample ID: 550-87922-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	1.1		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.020	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.029	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Thallium	0.0014	D1	0.0010	mg/L	10		200.8 LL	Total/NA
Cobalt - DL	0.0029	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW60-81017 — Lab Sample ID: 550-87922-3

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	0.85		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.00055		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.018		0.00050	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00064		0.00010	mg/L	1		200.8 LL	Total/NA
Chromium	0.0026		0.0010	mg/L	1		200.8 LL	Total/NA
Cobalt	0.28		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.17		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.00082		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00021		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW61-81017 — Lab Sample ID: 550-87922-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.2		0.40	mg/L	1		300.0	Total/NA
Lithium	0.40		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.014		0.00050	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00092		0.00010	mg/L	1		200.8 LL	Total/NA
Cobalt	0.015		0.00050	mg/L	1		200.8 LL	Total/NA
Lead	0.00083		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.079		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.00066		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00011		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW62-8917 — Lab Sample ID: 550-87922-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.4		0.40	mg/L	1		300.0	Total/NA
Arsenic	0.0016		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.027		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0048		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0025		0.00050	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: Four Corners CCR

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW63-8917 — Lab Sample ID: 550-87922-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.9		0.40	mg/L	1		300.0	Total/NA
Barium	0.020		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0063		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0026		0.00050	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW64-8917 — Lab Sample ID: 550-87922-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.5		0.40	mg/L	1		300.0	Total/NA
Barium	0.027		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0012		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0047		0.00050	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW65-8917 — Lab Sample ID: 550-87922-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0		0.40	mg/L	1		300.0	Total/NA
Barium	0.012		0.00050	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0012		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0083		0.00050	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW66-8917 — Lab Sample ID: 550-87922-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	26	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.34		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.019	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.022	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Cobalt - DL	0.0072	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW67-8917 — Lab Sample ID: 550-87922-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	22	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.44		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.020	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.038	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0023	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt - DL	0.0045	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.021	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW68-8917 — Lab Sample ID: 550-87922-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	11	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.37		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.0074	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.0067	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0055	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt - DL	0.0025	D1	0.0020	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW68-8917 (Continued) — Lab Sample ID: 550-87922-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Selenium - DL	0.27	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW69-8917 — Lab Sample ID: 550-87922-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	17	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.44		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.016	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.016	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0066	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt - DL	0.0044	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.014	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD01-8917 — Lab Sample ID: 550-87922-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	17	D1	2.0	mg/L	5		300.0	Total/NA
Lithium	0.43		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.013	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.014	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0072	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Chromium - DL	0.0059	D1	0.0040	mg/L	4		200.8 LL	Total/NA
Cobalt - DL	0.0044	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.016	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW70-8917 — Lab Sample ID: 550-87922-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.0	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.34		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.013	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.0093	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0047	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt - DL	0.0077	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.18	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW71-81017 — Lab Sample ID: 550-87922-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.34		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.0092	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0048	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.21	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW72-81017 — Lab Sample ID: 550-87922-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.41		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0040		0.00050	mg/L	1		200.8 LL	Total/NA
Barium	0.0075		0.00050	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: Four Corners CCR

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW72-81017 (Continued) — Lab Sample ID: 550-87922-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0023		0.00050	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.00087		0.00050	mg/L	1		200.8 LL	Total/NA
Selenium	0.14		0.00050	mg/L	1		200.8 LL	Total/NA
Thallium	0.00091		0.00010	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD02-81017 — Lab Sample ID: 550-87922-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.42		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.0089	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Thallium	0.0010	D1	0.0010	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0028	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Cobalt - DL	0.0025	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.10	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW73-81017 — Lab Sample ID: 550-87922-18

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.27		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.024	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Chromium - DL	0.0041	D1	0.0040	mg/L	4		200.8 LL	Total/NA
Cobalt - DL	0.0065	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.017	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW74-81017 — Lab Sample ID: 550-87922-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	2.0	D1	0.80	mg/L	2		300.0	Total/NA
Lithium	0.43		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.019	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.018	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Arsenic - DL	0.0022	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.060	D1	0.0020	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW75-81017 — Lab Sample ID: 550-87922-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.45		0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.019	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Cadmium	0.0023	D1	0.0010	mg/L	10		200.8 LL	Total/NA
Molybdenum	0.18	D1	0.0050	mg/L	10		200.8 LL	Total/NA
Cobalt - DL	0.046	D1	0.0020	mg/L	4		200.8 LL	Total/NA
Selenium - DL	0.0025	D1	0.0020	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW7-81017

Lab Sample ID: 550-87922-1
Date Collected: 08/10/17 15:41
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80		mg/L			08/23/17 20:32	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		08/21/17 06:51	08/27/17 18:36	1
Lithium	**0.90**		0.20		mg/L		08/21/17 06:51	08/27/17 18:36	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010		mg/L		08/21/17 09:54	09/27/17 11:30	10
Arsenic	**0.00066**		0.00050		mg/L		08/21/17 09:54	08/22/17 21:59	1
Barium	**0.016**	**D1**	0.0050		mg/L		08/21/17 09:54	09/27/17 11:30	10
Cadmium	ND	D1	0.0010		mg/L		08/21/17 09:54	09/27/17 11:30	10
Chromium	**0.0017**		0.0010		mg/L		08/21/17 09:54	08/22/17 21:59	1
Cobalt	ND		0.00050		mg/L		08/21/17 09:54	08/22/17 21:59	1
Lead	ND	D1	0.0050		mg/L		08/21/17 09:54	09/27/17 11:30	10
Molybdenum	ND	D1	0.0050		mg/L		08/21/17 09:54	09/27/17 11:30	10
Selenium	**0.015**		0.00050		mg/L		08/21/17 09:54	08/22/17 21:59	1
Thallium	ND	D1	0.0010		mg/L		08/21/17 09:54	09/27/17 11:30	10

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		08/22/17 11:28	08/23/17 16:00	1

Client Sample ID: FC-CCR-MW49A-81017

Lab Sample ID: 550-87922-2
Date Collected: 08/10/17 16:30
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	4.0		mg/L			08/23/17 22:23	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		08/21/17 06:51	08/27/17 18:42	1
Lithium	**1.1**		0.20		mg/L		08/21/17 06:51	08/27/17 18:42	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010		mg/L		08/21/17 09:54	09/27/17 11:38	10
Barium	**0.020**	**D1**	0.0050		mg/L		08/21/17 09:54	09/27/17 11:38	10
Cadmium	ND	D1	0.0010		mg/L		08/21/17 09:54	09/27/17 11:38	10
Lead	ND	D1	0.0050		mg/L		08/21/17 09:54	09/27/17 11:38	10
Molybdenum	**0.029**	**D1**	0.0050		mg/L		08/21/17 09:54	09/27/17 11:38	10
Thallium	**0.0014**	**D1**	0.0010		mg/L		08/21/17 09:54	09/27/17 11:38	10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	D1	0.0020		mg/L		08/21/17 09:54	09/07/17 16:04	4
Chromium	ND	D1	0.0040		mg/L		08/21/17 09:54	09/07/17 16:04	4
Cobalt	**0.0029**	**D1**	0.0020		mg/L		08/21/17 09:54	09/07/17 16:04	4

Client Sample ID: FC-CCR-MW49A-81017 — Lab Sample ID: 550-87922-2

Date Collected: 08/10/17 16:30 — **Matrix: Water**
Date Received: 08/11/17 15:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	D1	0.0020	mg/L		08/21/17 09:54	09/07/17 16:04	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:27	1

Client Sample ID: FC-CCR-MW60-81017 — Lab Sample ID: 550-87922-3

Date Collected: 08/10/17 14:57 — **Matrix: Water**
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**7.1**	**D1**	0.80	mg/L			08/23/17 23:00	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 18:47	1
Lithium	**0.85**		0.20	mg/L		08/21/17 06:51	08/27/17 18:47	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:09	1
Arsenic	**0.00055**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:09	1
Barium	**0.018**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:09	1
Cadmium	**0.00064**		0.00010	mg/L		08/21/17 09:54	08/22/17 22:09	1
Chromium	**0.0026**		0.0010	mg/L		08/21/17 09:54	08/22/17 22:09	1
Cobalt	**0.28**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:09	1
Lead	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:09	1
Molybdenum	**0.17**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:09	1
Selenium	**0.00082**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:09	1
Thallium	**0.00021**		0.00010	mg/L		08/21/17 09:54	08/22/17 22:09	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:29	1

Client Sample ID: FC-CCR-MW61-81017 — Lab Sample ID: 550-87922-4

Date Collected: 08/10/17 13:34 — **Matrix: Water**
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.2**		0.40	mg/L			08/24/17 00:13	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 18:53	1
Lithium	**0.40**		0.20	mg/L		08/21/17 06:51	08/27/17 18:53	1

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW61-81017

Lab Sample ID: 550-87922-4
Matrix: Water
Date Collected: 08/10/17 13:34
Date Received: 08/11/17 15:15

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:11	1
Arsenic	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:11	1
Barium	**0.014**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:11	1
Cadmium	**0.00092**		0.00010	mg/L		08/21/17 09:54	08/22/17 22:11	1
Chromium	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:11	1
Cobalt	**0.015**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:11	1
Lead	**0.00083**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:11	1
Molybdenum	**0.079**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:11	1
Selenium	**0.00066**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:11	1
Thallium	**0.00011**		0.00010	mg/L		08/21/17 09:54	08/22/17 22:11	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/25/17 14:26	08/28/17 12:45	1

Client Sample ID: FC-CCR-MW62-8917

Lab Sample ID: 550-87922-5
Matrix: Water
Date Collected: 08/09/17 15:31
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.4**		0.40	mg/L			08/24/17 00:50	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 18:59	1
Lithium	ND		0.20	mg/L		08/21/17 06:51	08/27/17 18:59	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:14	1
Arsenic	**0.0016**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:14	1
Barium	**0.027**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:14	1
Cadmium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:14	1
Chromium	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:14	1
Cobalt	**0.0048**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:14	1
Lead	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:14	1
Molybdenum	**0.0025**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:14	1
Selenium	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:14	1
Thallium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:14	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:08	1

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW63-8917

Lab Sample ID: 550-87922-6
Date Collected: 08/09/17 16:20
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.9**		0.40	mg/L			08/24/17 01:27	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 19:05	1
Lithium	ND		0.20	mg/L		08/21/17 06:51	08/27/17 19:05	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:16	1
Arsenic	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:16	1
Barium	**0.020**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:16	1
Cadmium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:16	1
Chromium	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:16	1
Cobalt	**0.0063**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:16	1
Lead	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:16	1
Molybdenum	**0.0026**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:16	1
Selenium	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:16	1
Thallium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:16	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/25/17 14:26	08/28/17 12:47	1

Client Sample ID: FC-CCR-MW64-8917

Lab Sample ID: 550-87922-7
Date Collected: 08/09/17 16:57
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.5**		0.40	mg/L			08/24/17 02:04	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 19:11	1
Lithium	ND		0.20	mg/L		08/21/17 06:51	08/27/17 19:11	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:18	1
Arsenic	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:18	1
Barium	**0.027**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:18	1
Cadmium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:18	1
Chromium	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:18	1
Cobalt	**0.0012**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:18	1
Lead	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:18	1
Molybdenum	**0.0047**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:18	1
Selenium	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:18	1
Thallium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:18	1

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW64-8917

Lab Sample ID: 550-87922-7
Date Collected: 08/09/17 16:57
Matrix: Water
Date Received: 08/11/17 15:15

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:03	1

Client Sample ID: FC-CCR-MW65-8917

Lab Sample ID: 550-87922-8
Date Collected: 08/09/17 14:08
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**		0.40	mg/L			08/24/17 02:40	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 19:14	1
Lithium	ND		0.20	mg/L		08/21/17 06:51	08/27/17 19:14	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:21	1
Arsenic	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:21	1
Barium	**0.012**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:21	1
Cadmium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:21	1
Chromium	ND		0.0010	mg/L		08/21/17 09:54	08/22/17 22:21	1
Cobalt	**0.0012**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:21	1
Lead	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:21	1
Molybdenum	**0.0083**		0.00050	mg/L		08/21/17 09:54	08/22/17 22:21	1
Selenium	ND		0.00050	mg/L		08/21/17 09:54	08/22/17 22:21	1
Thallium	ND		0.00010	mg/L		08/21/17 09:54	08/22/17 22:21	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:05	1

Client Sample ID: FC-CCR-MW66-8917

Lab Sample ID: 550-87922-9
Date Collected: 08/09/17 14:54
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**26**	**D1**	2.0	mg/L			08/24/17 03:54	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 19:17	1
Lithium	**0.34**		0.20	mg/L		08/21/17 06:51	08/27/17 19:17	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 11:40	10
Barium	**0.019**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:40	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:40	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:40	10

Client Sample ID: FC-CCR-MW66-8917

Lab Sample ID: 550-87922-9
Date Collected: 08/09/17 14:54
Matrix: Water
Date Received: 08/11/17 15:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**0.022**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:40	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:40	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	D1	0.0020	mg/L		08/21/17 09:54	09/07/17 16:06	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:06	4
Cobalt	**0.0072**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:06	4
Selenium	ND	D1	0.0020	mg/L		08/21/17 09:54	09/07/17 16:06	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:10	1

Client Sample ID: FC-CCR-MW67-8917

Lab Sample ID: 550-87922-10
Date Collected: 08/09/17 12:05
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**22**	**D1**	2.0	mg/L			08/24/17 04:31	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 19:22	1
Lithium	**0.44**		0.20	mg/L		08/21/17 06:51	08/27/17 19:22	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 11:42	10
Barium	**0.020**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:42	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:42	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:42	10
Molybdenum	**0.038**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:42	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:42	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0023**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:08	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:08	4
Cobalt	**0.0045**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:08	4
Selenium	**0.021**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:08	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:13	1

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW68-8917

Lab Sample ID: 550-87922-11
Date Collected: 08/09/17 12:50
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**11**	**D1**	2.0	mg/L			08/24/17 05:08	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		08/21/17 07:07	08/27/17 22:55	1
Lithium	**0.37**		0.20	mg/L		08/21/17 07:07	08/27/17 22:55	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 11:45	10
Barium	**0.0074**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:45	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:45	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:45	10
Molybdenum	**0.0067**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:45	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:45	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0055**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:11	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:11	4
Cobalt	**0.0025**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:11	4
Selenium	**0.27**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:11	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:11	1

Client Sample ID: FC-CCR-MW69-8917

Lab Sample ID: 550-87922-12
Date Collected: 08/09/17 10:49
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**17**	**D1**	2.0	mg/L			08/24/17 05:44	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:01	1
Lithium	**0.44**		0.20	mg/L		08/21/17 07:07	08/27/17 23:01	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 11:47	10
Barium	**0.016**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:47	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:47	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:47	10
Molybdenum	**0.016**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:47	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:47	10

Client Sample ID: FC-CCR-MW69-8917

Lab Sample ID: 550-87922-12
Date Collected: 08/09/17 10:49
Matrix: Water
Date Received: 08/11/17 15:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0066**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:18	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:18	4
Cobalt	**0.0044**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:18	4
Selenium	**0.014**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:18	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:14	1

Client Sample ID: FC-CCR-FD01-8917

Lab Sample ID: 550-87922-13
Date Collected: 08/09/17 10:49
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**17**	**D1**	2.0	mg/L			08/24/17 06:21	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		08/21/17 07:07	08/27/17 23:07	1
Lithium	**0.43**		0.20	mg/L		08/21/17 07:07	08/27/17 23:07	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 11:49	10
Barium	**0.013**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:49	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:49	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:49	10
Molybdenum	**0.014**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:49	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:49	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0072**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:20	4
Chromium	**0.0059**	**D1**	0.0040	mg/L		08/21/17 09:54	09/07/17 16:20	4
Cobalt	**0.0044**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:20	4
Selenium	**0.016**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:20	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:19	1

Client Sample ID: FC-CCR-MW70-8917

Lab Sample ID: 550-87922-14
Date Collected: 08/09/17 17:28
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**3.0**	**D1**	0.80	mg/L			08/24/17 07:35	2

Client Sample ID: FC-CCR-MW70-8917

Lab Sample ID: 550-87922-14
Date Collected: 08/09/17 17:28
Matrix: Water
Date Received: 08/11/17 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:19	1
Lithium	**0.34**		0.20	mg/L		08/21/17 07:07	08/27/17 23:19	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 11:56	10
Barium	**0.013**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:56	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:56	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:56	10
Molybdenum	**0.0093**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:56	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:56	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0047**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:23	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:23	4
Cobalt	**0.0077**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:23	4
Selenium	**0.18**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:23	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:21	1

Client Sample ID: FC-CCR-MW71-81017

Lab Sample ID: 550-87922-15
Date Collected: 08/10/17 10:37
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/24/17 19:05	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:25	1
Lithium	**0.34**		0.20	mg/L		08/21/17 07:07	08/27/17 23:25	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 11:59	10
Barium	**0.0092**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 11:59	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:59	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:59	10
Molybdenum	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 11:59	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 11:59	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0048**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:25	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:25	4
Cobalt	ND	D1	0.0020	mg/L		08/21/17 09:54	09/07/17 16:25	4
Selenium	**0.21**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:25	4

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW71-81017

Lab Sample ID: 550-87922-15
Date Collected: 08/10/17 10:37
Matrix: Water
Date Received: 08/11/17 15:15

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:26	1

Client Sample ID: FC-CCR-MW72-81017

Lab Sample ID: 550-87922-16
Date Collected: 08/10/17 09:35
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/24/17 08:48	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:31	1
Lithium	**0.41**		0.20	mg/L		08/21/17 07:07	08/27/17 23:31	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		09/11/17 08:33	09/16/17 15:16	1
Arsenic	**0.0040**		0.00050	mg/L		09/11/17 08:33	09/16/17 15:16	1
Barium	**0.0075**		0.00050	mg/L		09/11/17 08:33	09/16/17 15:16	1
Cadmium	ND		0.00010	mg/L		09/11/17 08:33	09/16/17 15:16	1
Chromium	ND		0.0010	mg/L		09/11/17 08:33	09/16/17 15:16	1
Cobalt	**0.0023**		0.00050	mg/L		09/11/17 08:33	09/16/17 15:16	1
Lead	ND		0.00050	mg/L		09/11/17 08:33	09/16/17 15:16	1
Molybdenum	**0.00087**		0.00050	mg/L		09/11/17 08:33	09/16/17 15:16	1
Selenium	**0.14**		0.00050	mg/L		09/11/17 08:33	09/16/17 15:16	1
Thallium	**0.00091**		0.00010	mg/L		09/11/17 08:33	09/16/17 15:16	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/22/17 11:28	08/23/17 16:06	1

Client Sample ID: FC-CCR-FD02-81017

Lab Sample ID: 550-87922-17
Date Collected: 08/10/17 09:35
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/24/17 09:25	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:37	1
Lithium	**0.42**		0.20	mg/L		08/21/17 07:07	08/27/17 23:37	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 12:01	10
Barium	**0.0089**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 12:01	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 12:01	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 12:01	10

Client Sample ID: FC-CCR-FD02-81017

Lab Sample ID: 550-87922-17
Date Collected: 08/10/17 09:35
Matrix: Water
Date Received: 08/11/17 15:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 12:01	10
Thallium	**0.0010**	**D1**	0.0010	mg/L		08/21/17 09:54	09/27/17 12:01	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0028**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:28	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:28	4
Cobalt	**0.0025**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:28	4
Selenium	**0.10**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:28	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/25/17 14:26	08/28/17 12:49	1

Client Sample ID: FC-CCR-MW73-81017

Lab Sample ID: 550-87922-18
Date Collected: 08/10/17 11:23
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	0.80	mg/L			08/24/17 10:02	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:42	1
Lithium	**0.27**		0.20	mg/L		08/21/17 07:07	08/27/17 23:42	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 12:04	10
Barium	**0.024**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 12:04	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 12:04	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 12:04	10
Molybdenum	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 12:04	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 12:04	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	D1	0.0020	mg/L		08/21/17 09:54	09/07/17 16:30	4
Chromium	**0.0041**	**D1**	0.0040	mg/L		08/21/17 09:54	09/07/17 16:30	4
Cobalt	**0.0065**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:30	4
Selenium	**0.017**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:30	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/25/17 14:26	08/28/17 12:50	1

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW74-81017

Lab Sample ID: 550-87922-19
Date Collected: 08/10/17 12:07
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.0**	**D1**	0.80	mg/L			08/24/17 11:16	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:48	1
Lithium	**0.43**		0.20	mg/L		08/21/17 07:07	08/27/17 23:48	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 12:06	10
Barium	**0.019**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 12:06	10
Cadmium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 12:06	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 12:06	10
Molybdenum	**0.018**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 12:06	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 12:06	10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0022**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:32	4
Chromium	ND	D1	0.0040	mg/L		08/21/17 09:54	09/07/17 16:32	4
Cobalt	ND	D1	0.0020	mg/L		08/21/17 09:54	09/07/17 16:32	4
Selenium	**0.060**	**D1**	0.0020	mg/L		08/21/17 09:54	09/07/17 16:32	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/25/17 14:26	08/28/17 12:52	1

Client Sample ID: FC-CCR-MW75-81017

Lab Sample ID: 550-87922-20
Date Collected: 08/10/17 14:16
Matrix: Water
Date Received: 08/11/17 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	D1 D5	2.0	mg/L			08/24/17 11:53	5

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 07:07	08/27/17 23:54	1
Lithium	**0.45**		0.20	mg/L		08/21/17 07:07	08/27/17 23:54	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1	0.010	mg/L		08/21/17 09:54	09/27/17 12:08	10
Barium	**0.019**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 12:08	10
Cadmium	**0.0023**	**D1**	0.0010	mg/L		08/21/17 09:54	09/27/17 12:08	10
Lead	ND	D1	0.0050	mg/L		08/21/17 09:54	09/27/17 12:08	10
Molybdenum	**0.18**	**D1**	0.0050	mg/L		08/21/17 09:54	09/27/17 12:08	10
Thallium	ND	D1	0.0010	mg/L		08/21/17 09:54	09/27/17 12:08	10

Client Sample Results

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW75-81017

Lab Sample ID: 550-87922-20

Date Collected: 08/10/17 14:16
Matrix: Water
Date Received: 08/11/17 15:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	D1	0.0020		mg/L		08/21/17 09:54	09/07/17 16:35	4
Chromium	ND	D1	0.0040		mg/L		08/21/17 09:54	09/07/17 16:35	4
Cobalt	**0.046**	**D1**	0.0020		mg/L		08/21/17 09:54	09/07/17 16:35	4
Selenium	**0.0025**	**D1**	0.0020		mg/L		08/21/17 09:54	09/07/17 16:35	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		08/25/17 14:26	08/28/17 12:53	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-125725/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125725

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			08/23/17 19:00	1

Lab Sample ID: LCS 550-125725/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125725

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	4.26		mg/L		107	90 - 110		

Lab Sample ID: LCSD 550-125725/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125725

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.28		mg/L		107	90 - 110	0	20

Lab Sample ID: 550-87922-1 MS — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125725

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	ND	D1 D5	8.00	8.42	D1	mg/L		101	80 - 120		

Lab Sample ID: 550-87922-1 MSD — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125725

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND	D1 D5	8.00	8.52	D1	mg/L		102	80 - 120	1	20

Lab Sample ID: MB 550-125801/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125801

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.40		mg/L			08/24/17 13:25	1

Lab Sample ID: LCS 550-125801/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125801

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 550-125801/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125801

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			4.00	4.29		mg/L		107	90 - 110	0	20

QC Sample Results

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

TestAmerica Job ID: 550-87922-2

Lab Sample ID: 550-88528-AF-1 MS
Matrix: Water
Analysis Batch: 125801

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	0.61		4.00	4.98		mg/L		109	80 - 120

Lab Sample ID: 550-88528-AF-1 MSD
Matrix: Water
Analysis Batch: 125801

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	0.61		4.00	5.07		mg/L		112	80 - 120	2	20

Lab Sample ID: MB 550-126428/2
Matrix: Water
Analysis Batch: 126428

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			09/01/17 11:01	1

Lab Sample ID: LCS 550-126428/5
Matrix: Water
Analysis Batch: 126428

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	4.29		mg/L		107	90 - 110

Lab Sample ID: LCSD 550-126428/6
Matrix: Water
Analysis Batch: 126428

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	4.31		mg/L		108	90 - 110	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-125366/1-A
Matrix: Water
Analysis Batch: 125974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 125366

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010	mg/L		08/21/17 06:51	08/27/17 18:15	1
Lithium	ND		0.20	mg/L		08/21/17 06:51	08/27/17 18:15	1

Lab Sample ID: LCS 550-125366/2-A
Matrix: Water
Analysis Batch: 125974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	1.01		mg/L		101	85 - 115
Lithium	1.00	1.07		mg/L		107	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-125366/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125974 — **Prep Batch: 125366**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	1.01		mg/L		101	85 - 115	0	20
Lithium			1.00	1.07		mg/L		107	85 - 115	0	20

Lab Sample ID: 550-87922-1 MS — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125974 — **Prep Batch: 125366**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium	ND		1.00	0.966		mg/L		97	70 - 130		
Lithium	0.90		1.00	1.93		mg/L		103	70 - 130		

Lab Sample ID: 550-87922-1 MSD — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125974 — **Prep Batch: 125366**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND		1.00	0.977		mg/L		98	70 - 130	1	20
Lithium	0.90		1.00	1.95		mg/L		105	70 - 130	1	20

Lab Sample ID: MB 550-125369/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125976 — **Prep Batch: 125369**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0010		mg/L		08/21/17 07:07	08/27/17 22:39	1
Lithium	ND		0.20		mg/L		08/21/17 07:07	08/27/17 22:39	1

Lab Sample ID: LCS 550-125369/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125976 — **Prep Batch: 125369**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium			1.00	1.00		mg/L		100	85 - 115		
Lithium			1.00	1.08		mg/L		108	85 - 115		

Lab Sample ID: LCSD 550-125369/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125976 — **Prep Batch: 125369**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	0.997		mg/L		100	85 - 115	0	20
Lithium			1.00	1.08		mg/L		108	85 - 115	0	20

Lab Sample ID: 550-87920-B-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125976 — **Prep Batch: 125369**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium	ND		1.00	1.02		mg/L		102	70 - 130		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-87920-B-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125976 — **Prep Batch: 125369**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	ND		1.00	1.18		mg/L		109	70 - 130		

Lab Sample ID: 550-87920-B-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125976 — **Prep Batch: 125369**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND		1.00	1.01		mg/L		101	70 - 130	1	20
Lithium	ND		1.00	1.18		mg/L		108	70 - 130	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-125373/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125563 — **Prep Batch: 125373**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010		mg/L		08/21/17 09:54	08/22/17 21:52	1
Arsenic	ND		0.00050		mg/L		08/21/17 09:54	08/22/17 21:52	1
Barium	ND		0.00050		mg/L		08/21/17 09:54	08/22/17 21:52	1
Cadmium	ND		0.00010		mg/L		08/21/17 09:54	08/22/17 21:52	1
Chromium	ND		0.0010		mg/L		08/21/17 09:54	08/22/17 21:52	1
Cobalt	ND		0.00050		mg/L		08/21/17 09:54	08/22/17 21:52	1
Lead	ND		0.00050		mg/L		08/21/17 09:54	08/22/17 21:52	1
Molybdenum	ND		0.00050		mg/L		08/21/17 09:54	08/22/17 21:52	1
Selenium	ND		0.00050		mg/L		08/21/17 09:54	08/22/17 21:52	1
Thallium	ND		0.00010		mg/L		08/21/17 09:54	08/22/17 21:52	1

Lab Sample ID: MB 550-125373/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 126856 — **Prep Batch: 125373**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00050		mg/L		08/21/17 09:54	09/07/17 15:49	1
Cadmium	ND		0.00010		mg/L		08/21/17 09:54	09/07/17 15:49	1
Chromium	ND		0.0010		mg/L		08/21/17 09:54	09/07/17 15:49	1
Cobalt	ND		0.00050		mg/L		08/21/17 09:54	09/07/17 15:49	1
Molybdenum	ND		0.00050		mg/L		08/21/17 09:54	09/07/17 15:49	1
Selenium	ND		0.00050		mg/L		08/21/17 09:54	09/07/17 15:49	1

Lab Sample ID: LCS 550-125373/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125563 — **Prep Batch: 125373**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			0.100	0.0981		mg/L		98	85 - 115		
Arsenic			0.100	0.0939		mg/L		94	85 - 115		
Barium			0.100	0.101		mg/L		101	85 - 115		
Cadmium			0.100	0.0944		mg/L		94	85 - 115		

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

Lab Sample ID: LCS 550-125373/2-A
Matrix: Water
Analysis Batch: 125563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125373

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.100	0.0933		mg/L		93	85 - 115
Cobalt	0.100	0.0946		mg/L		95	85 - 115
Lead	0.100	0.0986		mg/L		99	85 - 115
Molybdenum	0.100	0.0968		mg/L		97	85 - 115
Selenium	0.100	0.0915		mg/L		91	85 - 115
Thallium	0.100	0.0970		mg/L		97	85 - 115

Lab Sample ID: LCS 550-125373/2-A
Matrix: Water
Analysis Batch: 126856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 125373

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0982		mg/L		98	85 - 115
Cadmium	0.100	0.102		mg/L		102	85 - 115
Chromium	0.100	0.0983		mg/L		98	85 - 115
Cobalt	0.100	0.0997		mg/L		100	85 - 115
Molybdenum	0.100	0.102		mg/L		102	85 - 115
Selenium	0.100	0.101		mg/L		101	85 - 115

Lab Sample ID: LCSD 550-125373/3-A
Matrix: Water
Analysis Batch: 125563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125373

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0989		mg/L		99	85 - 115	1	20
Arsenic	0.100	0.0956		mg/L		96	85 - 115	2	20
Barium	0.100	0.102		mg/L		102	85 - 115	1	20
Cadmium	0.100	0.0945		mg/L		95	85 - 115	0	20
Chromium	0.100	0.0944		mg/L		94	85 - 115	1	20
Cobalt	0.100	0.0957		mg/L		96	85 - 115	1	20
Lead	0.100	0.0999		mg/L		100	85 - 115	1	20
Molybdenum	0.100	0.0970		mg/L		97	85 - 115	0	20
Selenium	0.100	0.0922		mg/L		92	85 - 115	1	20
Thallium	0.100	0.0978		mg/L		98	85 - 115	1	20

Lab Sample ID: LCSD 550-125373/3-A
Matrix: Water
Analysis Batch: 126856

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 125373

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.0986		mg/L		99	85 - 115	0	20
Cadmium	0.100	0.104		mg/L		104	85 - 115	2	20
Chromium	0.100	0.0977		mg/L		98	85 - 115	1	20
Cobalt	0.100	0.101		mg/L		101	85 - 115	1	20
Molybdenum	0.100	0.105		mg/L		105	85 - 115	2	20
Selenium	0.100	0.0996		mg/L		100	85 - 115	1	20

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

Lab Sample ID: 550-87922-1 MS — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125563 — **Prep Batch: 125373**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00066		0.100	0.106		mg/L		106	70 - 130
Chromium	0.0017		0.100	0.0977		mg/L		96	70 - 130
Cobalt	ND		0.100	0.0908		mg/L		90	70 - 130
Selenium	0.015		0.100	0.132		mg/L		117	70 - 130

Lab Sample ID: 550-87922-1 MS — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128517 — **Prep Batch: 125373**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	D1	0.100	0.103	D1	mg/L		103	70 - 130
Barium	0.016	D1	0.100	0.115	D1	mg/L		99	70 - 130
Cadmium	ND	D1	0.100	0.101	D1	mg/L		101	70 - 130
Lead	ND	D1	0.100	0.0914	D1	mg/L		91	70 - 130
Molybdenum	ND	D1	0.100	0.107	D1	mg/L		104	70 - 130
Thallium	ND	D1	0.100	0.0927	D1	mg/L		93	70 - 130

Lab Sample ID: 550-87922-1 MSD — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125563 — **Prep Batch: 125373**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00066		0.100	0.106		mg/L		105	70 - 130	0	20
Chromium	0.0017		0.100	0.0979		mg/L		96	70 - 130	0	20
Cobalt	ND		0.100	0.0910		mg/L		91	70 - 130	0	20
Selenium	0.015		0.100	0.134		mg/L		119	70 - 130	2	20

Lab Sample ID: 550-87922-1 MSD — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128517 — **Prep Batch: 125373**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	D1	0.100	0.104	D1	mg/L		104	70 - 130	1	20
Barium	0.016	D1	0.100	0.115	D1	mg/L		100	70 - 130	0	20
Cadmium	ND	D1	0.100	0.101	D1	mg/L		101	70 - 130	0	20
Lead	ND	D1	0.100	0.0929	D1	mg/L		93	70 - 130	2	20
Molybdenum	ND	D1	0.100	0.108	D1	mg/L		105	70 - 130	1	20
Thallium	ND	D1	0.100	0.0943	D1	mg/L		94	70 - 130	2	20

Lab Sample ID: MB 550-126998/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127558 — **Prep Batch: 126998**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0010	mg/L		09/11/17 08:33	09/16/17 14:41	1
Arsenic	ND		0.00050	mg/L		09/11/17 08:33	09/16/17 14:41	1
Barium	ND		0.00050	mg/L		09/11/17 08:33	09/16/17 14:41	1
Cadmium	ND		0.00010	mg/L		09/11/17 08:33	09/16/17 14:41	1
Chromium	ND		0.0010	mg/L		09/11/17 08:33	09/16/17 14:41	1

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

Lab Sample ID: MB 550-126998/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127558 — **Prep Batch: 126998**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND		0.00050	mg/L		09/11/17 08:33	09/16/17 14:41	1
Lead	ND		0.00050	mg/L		09/11/17 08:33	09/16/17 14:41	1
Molybdenum	ND		0.00050	mg/L		09/11/17 08:33	09/16/17 14:41	1
Selenium	ND		0.00050	mg/L		09/11/17 08:33	09/16/17 14:41	1
Thallium	ND		0.00010	mg/L		09/11/17 08:33	09/16/17 14:41	1

Lab Sample ID: LCS 550-126998/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127558 — **Prep Batch: 126998**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0963		mg/L		96	85 - 115
Arsenic	0.100	0.0958		mg/L		96	85 - 115
Barium	0.100	0.0978		mg/L		98	85 - 115
Cadmium	0.100	0.0958		mg/L		96	85 - 115
Chromium	0.100	0.0941		mg/L		94	85 - 115
Cobalt	0.100	0.0974		mg/L		97	85 - 115
Lead	0.100	0.0973		mg/L		97	85 - 115
Molybdenum	0.100	0.0953		mg/L		95	85 - 115
Selenium	0.100	0.0948		mg/L		95	85 - 115
Thallium	0.100	0.0966		mg/L		97	85 - 115

Lab Sample ID: LCSD 550-126998/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127558 — **Prep Batch: 126998**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0965		mg/L		97	85 - 115	0	20
Arsenic	0.100	0.0959		mg/L		96	85 - 115	0	20
Barium	0.100	0.0981		mg/L		98	85 - 115	0	20
Cadmium	0.100	0.0962		mg/L		96	85 - 115	0	20
Chromium	0.100	0.0948		mg/L		95	85 - 115	1	20
Cobalt	0.100	0.0972		mg/L		97	85 - 115	0	20
Lead	0.100	0.0977		mg/L		98	85 - 115	0	20
Molybdenum	0.100	0.0951		mg/L		95	85 - 115	0	20
Selenium	0.100	0.0952		mg/L		95	85 - 115	0	20
Thallium	0.100	0.0958		mg/L		96	85 - 115	1	20

Lab Sample ID: 550-89361-M-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127558 — **Prep Batch: 126998**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		0.100	0.0963		mg/L		96	70 - 130
Arsenic	0.0025		0.100	0.0978		mg/L		95	70 - 130
Barium	0.14		0.100	0.230		mg/L		95	70 - 130
Cadmium	ND		0.100	0.0944		mg/L		94	70 - 130
Chromium	ND		0.100	0.0939		mg/L		93	70 - 130
Cobalt	ND		0.100	0.0938		mg/L		94	70 - 130

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

Lab Sample ID: 550-89361-M-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127558 — **Prep Batch: 126998**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	ND		0.100	0.0945		mg/L		94	70 - 130		
Molybdenum	ND		0.100	0.0965		mg/L		96	70 - 130		
Selenium	0.00054		0.100	0.0950		mg/L		94	70 - 130		
Thallium	0.00011		0.100	0.0933		mg/L		93	70 - 130		

Lab Sample ID: 550-89361-M-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127558 — **Prep Batch: 126998**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		0.100	0.0979		mg/L		98	70 - 130	2	20
Arsenic	0.0025		0.100	0.0992		mg/L		97	70 - 130	1	20
Barium	0.14		0.100	0.235		mg/L		100	70 - 130	2	20
Cadmium	ND		0.100	0.0964		mg/L		96	70 - 130	2	20
Chromium	ND		0.100	0.0957		mg/L		95	70 - 130	2	20
Cobalt	ND		0.100	0.0952		mg/L		95	70 - 130	2	20
Lead	ND		0.100	0.0960		mg/L		96	70 - 130	2	20
Molybdenum	ND		0.100	0.0977		mg/L		97	70 - 130	1	20
Selenium	0.00054		0.100	0.0966		mg/L		96	70 - 130	2	20
Thallium	0.00011		0.100	0.0949		mg/L		95	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-125482/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125661 — **Prep Batch: 125482**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020		mg/L		08/22/17 11:28	08/23/17 15:52	1

Lab Sample ID: LCS 550-125482/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125661 — **Prep Batch: 125482**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg			0.0100	0.0100		mg/L		100	85 - 115		

Lab Sample ID: LCSD 550-125482/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125661 — **Prep Batch: 125482**

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	6	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-87922-1 MS — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125661 — **Prep Batch: 125482**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND		0.0100	0.00788		mg/L		79	70 - 130

Lab Sample ID: 550-87922-1 MSD — **Client Sample ID: FC-CCR-MW7-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125661 — **Prep Batch: 125482**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00926		mg/L		93	70 - 130	16	20

Lab Sample ID: MB 550-125826/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125956 — **Prep Batch: 125826**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND		0.00020	mg/L		08/25/17 14:26	08/28/17 12:38	1

Lab Sample ID: LCS 550-125826/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125956 — **Prep Batch: 125826**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.0100	0.00854		mg/L		85	85 - 115

Lab Sample ID: LCSD 550-125826/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125956 — **Prep Batch: 125826**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.0100	0.00865		mg/L		86	85 - 115	1	20

Lab Sample ID: 550-87922-4 MS — **Client Sample ID: FC-CCR-MW61-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125956 — **Prep Batch: 125826**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND		0.0100	0.00720		mg/L		72	70 - 130

Lab Sample ID: 550-87922-4 MSD — **Client Sample ID: FC-CCR-MW61-81017**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 125956 — **Prep Batch: 125826**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND		0.0100	0.00825		mg/L		82	70 - 130	14	20

QC Association Summary

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

TestAmerica Job ID: 550-87922-2

HPLC/IC

Analysis Batch: 125725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	300.0	
550-87922-2	FC-CCR-MW49A-81017	Total/NA	Water	300.0	
550-87922-3	FC-CCR-MW60-81017	Total/NA	Water	300.0	
550-87922-4	FC-CCR-MW61-81017	Total/NA	Water	300.0	
550-87922-5	FC-CCR-MW62-8917	Total/NA	Water	300.0	
550-87922-6	FC-CCR-MW63-8917	Total/NA	Water	300.0	
550-87922-7	FC-CCR-MW64-8917	Total/NA	Water	300.0	
550-87922-8	FC-CCR-MW65-8917	Total/NA	Water	300.0	
550-87922-9	FC-CCR-MW66-8917	Total/NA	Water	300.0	
550-87922-10	FC-CCR-MW67-8917	Total/NA	Water	300.0	
550-87922-11	FC-CCR-MW68-8917	Total/NA	Water	300.0	
550-87922-12	FC-CCR-MW69-8917	Total/NA	Water	300.0	
550-87922-13	FC-CCR-FD01-8917	Total/NA	Water	300.0	
550-87922-14	FC-CCR-MW70-8917	Total/NA	Water	300.0	
550-87922-16	FC-CCR-MW72-81017	Total/NA	Water	300.0	
550-87922-17	FC-CCR-FD02-81017	Total/NA	Water	300.0	
550-87922-18	FC-CCR-MW73-81017	Total/NA	Water	300.0	
550-87922-19	FC-CCR-MW74-81017	Total/NA	Water	300.0	
550-87922-20	FC-CCR-MW75-81017	Total/NA	Water	300.0	
MB 550-125725/2	Method Blank	Total/NA	Water	300.0	
LCS 550-125725/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-125725/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	300.0	
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	300.0	

Analysis Batch: 125801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-15	FC-CCR-MW71-81017	Total/NA	Water	300.0	
MB 550-125801/2	Method Blank	Total/NA	Water	300.0	
LCS 550-125801/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-125801/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-88528-AF-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-88528-AF-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 126428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-126428/2	Method Blank	Total/NA	Water	300.0	
LCS 550-126428/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-126428/6	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 125366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	200.7	
550-87922-2	FC-CCR-MW49A-81017	Total/NA	Water	200.7	
550-87922-3	FC-CCR-MW60-81017	Total/NA	Water	200.7	
550-87922-4	FC-CCR-MW61-81017	Total/NA	Water	200.7	
550-87922-5	FC-CCR-MW62-8917	Total/NA	Water	200.7	
550-87922-6	FC-CCR-MW63-8917	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 125366 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-7	FC-CCR-MW64-8917	Total/NA	Water	200.7	
550-87922-8	FC-CCR-MW65-8917	Total/NA	Water	200.7	
550-87922-9	FC-CCR-MW66-8917	Total/NA	Water	200.7	
550-87922-10	FC-CCR-MW67-8917	Total/NA	Water	200.7	
MB 550-125366/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-125366/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-125366/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	200.7	
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	200.7	

Prep Batch: 125369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-11	FC-CCR-MW68-8917	Total/NA	Water	200.7	
550-87922-12	FC-CCR-MW69-8917	Total/NA	Water	200.7	
550-87922-13	FC-CCR-FD01-8917	Total/NA	Water	200.7	
550-87922-14	FC-CCR-MW70-8917	Total/NA	Water	200.7	
550-87922-15	FC-CCR-MW71-81017	Total/NA	Water	200.7	
550-87922-16	FC-CCR-MW72-81017	Total/NA	Water	200.7	
550-87922-17	FC-CCR-FD02-81017	Total/NA	Water	200.7	
550-87922-18	FC-CCR-MW73-81017	Total/NA	Water	200.7	
550-87922-19	FC-CCR-MW74-81017	Total/NA	Water	200.7	
550-87922-20	FC-CCR-MW75-81017	Total/NA	Water	200.7	
MB 550-125369/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-125369/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-125369/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-87920-B-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-87920-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 125373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	200.8	
550-87922-2	FC-CCR-MW49A-81017	Total/NA	Water	200.8	
550-87922-2 - DL	FC-CCR-MW49A-81017	Total/NA	Water	200.8	
550-87922-3	FC-CCR-MW60-81017	Total/NA	Water	200.8	
550-87922-4	FC-CCR-MW61-81017	Total/NA	Water	200.8	
550-87922-5	FC-CCR-MW62-8917	Total/NA	Water	200.8	
550-87922-6	FC-CCR-MW63-8917	Total/NA	Water	200.8	
550-87922-7	FC-CCR-MW64-8917	Total/NA	Water	200.8	
550-87922-8	FC-CCR-MW65-8917	Total/NA	Water	200.8	
550-87922-9 - DL	FC-CCR-MW66-8917	Total/NA	Water	200.8	
550-87922-9	FC-CCR-MW66-8917	Total/NA	Water	200.8	
550-87922-10	FC-CCR-MW67-8917	Total/NA	Water	200.8	
550-87922-10 - DL	FC-CCR-MW67-8917	Total/NA	Water	200.8	
550-87922-11 - DL	FC-CCR-MW68-8917	Total/NA	Water	200.8	
550-87922-11	FC-CCR-MW68-8917	Total/NA	Water	200.8	
550-87922-12	FC-CCR-MW69-8917	Total/NA	Water	200.8	
550-87922-12 - DL	FC-CCR-MW69-8917	Total/NA	Water	200.8	
550-87922-13	FC-CCR-FD01-8917	Total/NA	Water	200.8	
550-87922-13 - DL	FC-CCR-FD01-8917	Total/NA	Water	200.8	
550-87922-14	FC-CCR-MW70-8917	Total/NA	Water	200.8	
550-87922-14 - DL	FC-CCR-MW70-8917	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 125373 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-15	FC-CCR-MW71-81017	Total/NA	Water	200.8	
550-87922-15 - DL	FC-CCR-MW71-81017	Total/NA	Water	200.8	
550-87922-17	FC-CCR-FD02-81017	Total/NA	Water	200.8	
550-87922-17 - DL	FC-CCR-FD02-81017	Total/NA	Water	200.8	
550-87922-18	FC-CCR-MW73-81017	Total/NA	Water	200.8	
550-87922-18 - DL	FC-CCR-MW73-81017	Total/NA	Water	200.8	
550-87922-19 - DL	FC-CCR-MW74-81017	Total/NA	Water	200.8	
550-87922-19	FC-CCR-MW74-81017	Total/NA	Water	200.8	
550-87922-20 - DL	FC-CCR-MW75-81017	Total/NA	Water	200.8	
550-87922-20	FC-CCR-MW75-81017	Total/NA	Water	200.8	
MB 550-125373/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-125373/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-125373/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	200.8	
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	200.8	

Prep Batch: 125482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	245.1	
550-87922-2	FC-CCR-MW49A-81017	Total/NA	Water	245.1	
550-87922-3	FC-CCR-MW60-81017	Total/NA	Water	245.1	
550-87922-5	FC-CCR-MW62-8917	Total/NA	Water	245.1	
550-87922-7	FC-CCR-MW64-8917	Total/NA	Water	245.1	
550-87922-8	FC-CCR-MW65-8917	Total/NA	Water	245.1	
550-87922-9	FC-CCR-MW66-8917	Total/NA	Water	245.1	
550-87922-10	FC-CCR-MW67-8917	Total/NA	Water	245.1	
550-87922-11	FC-CCR-MW68-8917	Total/NA	Water	245.1	
550-87922-12	FC-CCR-MW69-8917	Total/NA	Water	245.1	
550-87922-13	FC-CCR-FD01-8917	Total/NA	Water	245.1	
550-87922-14	FC-CCR-MW70-8917	Total/NA	Water	245.1	
550-87922-15	FC-CCR-MW71-81017	Total/NA	Water	245.1	
550-87922-16	FC-CCR-MW72-81017	Total/NA	Water	245.1	
MB 550-125482/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-125482/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-125482/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	245.1	
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	245.1	

Analysis Batch: 125563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	200.8 LL	125373
550-87922-3	FC-CCR-MW60-81017	Total/NA	Water	200.8 LL	125373
550-87922-4	FC-CCR-MW61-81017	Total/NA	Water	200.8 LL	125373
550-87922-5	FC-CCR-MW62-8917	Total/NA	Water	200.8 LL	125373
550-87922-6	FC-CCR-MW63-8917	Total/NA	Water	200.8 LL	125373
550-87922-7	FC-CCR-MW64-8917	Total/NA	Water	200.8 LL	125373
550-87922-8	FC-CCR-MW65-8917	Total/NA	Water	200.8 LL	125373
MB 550-125373/1-A	Method Blank	Total/NA	Water	200.8 LL	125373
LCS 550-125373/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	125373
LCSD 550-125373/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	125373
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	200.8 LL	125373

Metals (Continued)

Analysis Batch: 125563 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	200.8 LL	125373

Analysis Batch: 125661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	245.1	125482
550-87922-2	FC-CCR-MW49A-81017	Total/NA	Water	245.1	125482
550-87922-3	FC-CCR-MW60-81017	Total/NA	Water	245.1	125482
550-87922-5	FC-CCR-MW62-8917	Total/NA	Water	245.1	125482
550-87922-7	FC-CCR-MW64-8917	Total/NA	Water	245.1	125482
550-87922-8	FC-CCR-MW65-8917	Total/NA	Water	245.1	125482
550-87922-9	FC-CCR-MW66-8917	Total/NA	Water	245.1	125482
550-87922-10	FC-CCR-MW67-8917	Total/NA	Water	245.1	125482
550-87922-11	FC-CCR-MW68-8917	Total/NA	Water	245.1	125482
550-87922-12	FC-CCR-MW69-8917	Total/NA	Water	245.1	125482
550-87922-13	FC-CCR-FD01-8917	Total/NA	Water	245.1	125482
550-87922-14	FC-CCR-MW70-8917	Total/NA	Water	245.1	125482
550-87922-15	FC-CCR-MW71-81017	Total/NA	Water	245.1	125482
550-87922-16	FC-CCR-MW72-81017	Total/NA	Water	245.1	125482
MB 550-125482/1-A	Method Blank	Total/NA	Water	245.1	125482
LCS 550-125482/2-A	Lab Control Sample	Total/NA	Water	245.1	125482
LCSD 550-125482/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	125482
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	245.1	125482
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	245.1	125482

Prep Batch: 125826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-4	FC-CCR-MW61-81017	Total/NA	Water	245.1	
550-87922-6	FC-CCR-MW63-8917	Total/NA	Water	245.1	
550-87922-17	FC-CCR-FD02-81017	Total/NA	Water	245.1	
550-87922-18	FC-CCR-MW73-81017	Total/NA	Water	245.1	
550-87922-19	FC-CCR-MW74-81017	Total/NA	Water	245.1	
550-87922-20	FC-CCR-MW75-81017	Total/NA	Water	245.1	
MB 550-125826/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-125826/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-125826/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-87922-4 MS	FC-CCR-MW61-81017	Total/NA	Water	245.1	
550-87922-4 MSD	FC-CCR-MW61-81017	Total/NA	Water	245.1	

Analysis Batch: 125956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-4	FC-CCR-MW61-81017	Total/NA	Water	245.1	125826
550-87922-6	FC-CCR-MW63-8917	Total/NA	Water	245.1	125826
550-87922-17	FC-CCR-FD02-81017	Total/NA	Water	245.1	125826
550-87922-18	FC-CCR-MW73-81017	Total/NA	Water	245.1	125826
550-87922-19	FC-CCR-MW74-81017	Total/NA	Water	245.1	125826
550-87922-20	FC-CCR-MW75-81017	Total/NA	Water	245.1	125826
MB 550-125826/1-A	Method Blank	Total/NA	Water	245.1	125826
LCS 550-125826/2-A	Lab Control Sample	Total/NA	Water	245.1	125826
LCSD 550-125826/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	125826
550-87922-4 MS	FC-CCR-MW61-81017	Total/NA	Water	245.1	125826
550-87922-4 MSD	FC-CCR-MW61-81017	Total/NA	Water	245.1	125826

QC Association Summary

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

TestAmerica Job ID: 550-87922-2

Analysis Batch: 125974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-2	FC-CCR-MW49A-81017	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-3	FC-CCR-MW60-81017	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-4	FC-CCR-MW61-81017	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-5	FC-CCR-MW62-8917	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-6	FC-CCR-MW63-8917	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-7	FC-CCR-MW64-8917	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-8	FC-CCR-MW65-8917	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-9	FC-CCR-MW66-8917	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-10	FC-CCR-MW67-8917	Total/NA	Water	200.7 Rev 4.4	125366
MB 550-125366/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	125366
LCS 550-125366/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	125366
LCSD 550-125366/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	200.7 Rev 4.4	125366
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	200.7 Rev 4.4	125366

Analysis Batch: 125976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-11	FC-CCR-MW68-8917	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-12	FC-CCR-MW69-8917	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-13	FC-CCR-FD01-8917	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-14	FC-CCR-MW70-8917	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-15	FC-CCR-MW71-81017	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-16	FC-CCR-MW72-81017	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-17	FC-CCR-FD02-81017	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-18	FC-CCR-MW73-81017	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-19	FC-CCR-MW74-81017	Total/NA	Water	200.7 Rev 4.4	125369
550-87922-20	FC-CCR-MW75-81017	Total/NA	Water	200.7 Rev 4.4	125369
MB 550-125369/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	125369
LCS 550-125369/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	125369
LCSD 550-125369/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	125369
550-87920-B-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	125369
550-87920-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	125369

Analysis Batch: 126856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-2 - DL	FC-CCR-MW49A-81017	Total/NA	Water	200.8 LL	125373
550-87922-9 - DL	FC-CCR-MW66-8917	Total/NA	Water	200.8 LL	125373
550-87922-10 - DL	FC-CCR-MW67-8917	Total/NA	Water	200.8 LL	125373
550-87922-11 - DL	FC-CCR-MW68-8917	Total/NA	Water	200.8 LL	125373
550-87922-12 - DL	FC-CCR-MW69-8917	Total/NA	Water	200.8 LL	125373
550-87922-13 - DL	FC-CCR-FD01-8917	Total/NA	Water	200.8 LL	125373
550-87922-14 - DL	FC-CCR-MW70-8917	Total/NA	Water	200.8 LL	125373
550-87922-15 - DL	FC-CCR-MW71-81017	Total/NA	Water	200.8 LL	125373
550-87922-17 - DL	FC-CCR-FD02-81017	Total/NA	Water	200.8 LL	125373
550-87922-18 - DL	FC-CCR-MW73-81017	Total/NA	Water	200.8 LL	125373
550-87922-19 - DL	FC-CCR-MW74-81017	Total/NA	Water	200.8 LL	125373
550-87922-20 - DL	FC-CCR-MW75-81017	Total/NA	Water	200.8 LL	125373
MB 550-125373/1-A	Method Blank	Total/NA	Water	200.8 LL	125373
LCS 550-125373/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	125373
LCSD 550-125373/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	125373

Metals (Continued)

Prep Batch: 126998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-16	FC-CCR-MW72-81017	Total/NA	Water	200.8	
MB 550-126998/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-126998/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-126998/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-89361-M-1-B MS	Matrix Spike	Total/NA	Water	200.8	
550-89361-M-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 127558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-16	FC-CCR-MW72-81017	Total/NA	Water	200.8 LL	126998
MB 550-126998/1-A	Method Blank	Total/NA	Water	200.8 LL	126998
LCS 550-126998/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	126998
LCSD 550-126998/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	126998
550-89361-M-1-B MS	Matrix Spike	Total/NA	Water	200.8 LL	126998
550-89361-M-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	126998

Analysis Batch: 128517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-87922-1	FC-CCR-MW7-81017	Total/NA	Water	200.8 LL	125373
550-87922-2	FC-CCR-MW49A-81017	Total/NA	Water	200.8 LL	125373
550-87922-9	FC-CCR-MW66-8917	Total/NA	Water	200.8 LL	125373
550-87922-10	FC-CCR-MW67-8917	Total/NA	Water	200.8 LL	125373
550-87922-11	FC-CCR-MW68-8917	Total/NA	Water	200.8 LL	125373
550-87922-12	FC-CCR-MW69-8917	Total/NA	Water	200.8 LL	125373
550-87922-13	FC-CCR-FD01-8917	Total/NA	Water	200.8 LL	125373
550-87922-14	FC-CCR-MW70-8917	Total/NA	Water	200.8 LL	125373
550-87922-15	FC-CCR-MW71-81017	Total/NA	Water	200.8 LL	125373
550-87922-17	FC-CCR-FD02-81017	Total/NA	Water	200.8 LL	125373
550-87922-18	FC-CCR-MW73-81017	Total/NA	Water	200.8 LL	125373
550-87922-19	FC-CCR-MW74-81017	Total/NA	Water	200.8 LL	125373
550-87922-20	FC-CCR-MW75-81017	Total/NA	Water	200.8 LL	125373
550-87922-1 MS	FC-CCR-MW7-81017	Total/NA	Water	200.8 LL	125373
550-87922-1 MSD	FC-CCR-MW7-81017	Total/NA	Water	200.8 LL	125373

Lab Chronicle

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW7-81017 — Lab Sample ID: 550-87922-1

Date Collected: 08/10/17 15:41
Date Received: 08/11/17 15:15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125725	08/23/17 20:32	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 18:36	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	125563	08/22/17 21:59	TC1	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:30	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:00	JTG	TAL PHX

Client Sample ID: FC-CCR-MW49A-81017 — Lab Sample ID: 550-87922-2

Date Collected: 08/10/17 16:30
Date Received: 08/11/17 15:15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	125725	08/23/17 22:23	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 18:42	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:04	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:38	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:27	JTG	TAL PHX

Client Sample ID: FC-CCR-MW60-81017 — Lab Sample ID: 550-87922-3

Date Collected: 08/10/17 14:57
Date Received: 08/11/17 15:15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125725	08/23/17 23:00	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 18:47	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	125563	08/22/17 22:09	TC1	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:29	JTG	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW61-81017 — Lab Sample ID: 550-87922-4

Date Collected: 08/10/17 13:34 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125725	08/24/17 00:13	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 18:53	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	125563	08/22/17 22:11	TC1	TAL PHX
Total/NA	Prep	245.1			125826	08/25/17 14:26	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125956	08/28/17 12:45	JTG	TAL PHX

Client Sample ID: FC-CCR-MW62-8917 — Lab Sample ID: 550-87922-5

Date Collected: 08/09/17 15:31 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125725	08/24/17 00:50	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 18:59	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	125563	08/22/17 22:14	TC1	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:08	JTG	TAL PHX

Client Sample ID: FC-CCR-MW63-8917 — Lab Sample ID: 550-87922-6

Date Collected: 08/09/17 16:20 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125725	08/24/17 01:27	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 19:05	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	125563	08/22/17 22:16	TC1	TAL PHX
Total/NA	Prep	245.1			125826	08/25/17 14:26	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125956	08/28/17 12:47	JTG	TAL PHX

Client Sample ID: FC-CCR-MW64-8917 — Lab Sample ID: 550-87922-7

Date Collected: 08/09/17 16:57 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125725	08/24/17 02:04	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 19:11	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW64-8917 — Lab Sample ID: 550-87922-7

Date Collected: 08/09/17 16:57 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8 LL		1	125563	08/22/17 22:18	TC1	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:03	JTG	TAL PHX

Client Sample ID: FC-CCR-MW65-8917 — Lab Sample ID: 550-87922-8

Date Collected: 08/09/17 14:08 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	125725	08/24/17 02:40	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 19:14	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	125563	08/22/17 22:21	TC1	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:05	JTG	TAL PHX

Client Sample ID: FC-CCR-MW66-8917 — Lab Sample ID: 550-87922-9

Date Collected: 08/09/17 14:54 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 03:54	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 19:17	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:06	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:40	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:10	JTG	TAL PHX

Client Sample ID: FC-CCR-MW67-8917 — Lab Sample ID: 550-87922-10

Date Collected: 08/09/17 12:05 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 04:31	JSS	TAL PHX
Total/NA	Prep	200.7			125366	08/21/17 06:51	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125974	08/27/17 19:22	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:08	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW67-8917 — Lab Sample ID: 550-87922-10

Date Collected: 08/09/17 12:05 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:42	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:13	JTG	TAL PHX

Client Sample ID: FC-CCR-MW68-8917 — Lab Sample ID: 550-87922-11

Date Collected: 08/09/17 12:50 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 05:08	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 22:55	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:11	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:45	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:11	JTG	TAL PHX

Client Sample ID: FC-CCR-MW69-8917 — Lab Sample ID: 550-87922-12

Date Collected: 08/09/17 10:49 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 05:44	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:01	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:18	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:47	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:14	JTG	TAL PHX

Client Sample ID: FC-CCR-FD01-8917 — Lab Sample ID: 550-87922-13

Date Collected: 08/09/17 10:49 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 06:21	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:07	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-FD01-8917 — Lab Sample ID: 550-87922-13

Date Collected: 08/09/17 10:49 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:20	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:49	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:19	JTG	TAL PHX

Client Sample ID: FC-CCR-MW70-8917 — Lab Sample ID: 550-87922-14

Date Collected: 08/09/17 17:28 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125725	08/24/17 07:35	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:19	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:23	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:56	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:21	JTG	TAL PHX

Client Sample ID: FC-CCR-MW71-81017 — Lab Sample ID: 550-87922-15

Date Collected: 08/10/17 10:37 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125801	08/24/17 19:05	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:25	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:25	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 11:59	TEK	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:26	JTG	TAL PHX

Client Sample ID: FC-CCR-MW72-81017 — Lab Sample ID: 550-87922-16

Date Collected: 08/10/17 09:35 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 08:48	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX

Client Sample ID: FC-CCR-MW72-81017 — Lab Sample ID: 550-87922-16

Date Collected: 08/10/17 09:35 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:31	R1K	TAL PHX
Total/NA	Prep	200.8			126998	09/11/17 08:33	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	127558	09/16/17 15:16	TC1	TAL PHX
Total/NA	Prep	245.1			125482	08/22/17 11:28	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125661	08/23/17 16:06	JTG	TAL PHX

Client Sample ID: FC-CCR-FD02-81017 — Lab Sample ID: 550-87922-17

Date Collected: 08/10/17 09:35 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 09:25	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:37	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:28	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 12:01	TEK	TAL PHX
Total/NA	Prep	245.1			125826	08/25/17 14:26	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125956	08/28/17 12:49	JTG	TAL PHX

Client Sample ID: FC-CCR-MW73-81017 — Lab Sample ID: 550-87922-18

Date Collected: 08/10/17 11:23 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125725	08/24/17 10:02	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:42	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:30	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 12:04	TEK	TAL PHX
Total/NA	Prep	245.1			125826	08/25/17 14:26	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125956	08/28/17 12:50	JTG	TAL PHX

Client Sample ID: FC-CCR-MW74-81017 — Lab Sample ID: 550-87922-19

Date Collected: 08/10/17 12:07 — **Matrix: Water**
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	125725	08/24/17 11:16	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX

Lab Chronicle

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

TestAmerica Job ID: 550-87922-2

Client Sample ID: FC-CCR-MW74-81017

Lab Sample ID: 550-87922-19
Date Collected: 08/10/17 12:07
Matrix: Water
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:48	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:32	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 12:06	TEK	TAL PHX
Total/NA	Prep	245.1			125826	08/25/17 14:26	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125956	08/28/17 12:52	JTG	TAL PHX

Client Sample ID: FC-CCR-MW75-81017

Lab Sample ID: 550-87922-20
Date Collected: 08/10/17 14:16
Matrix: Water
Date Received: 08/11/17 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	125725	08/24/17 11:53	JSS	TAL PHX
Total/NA	Prep	200.7			125369	08/21/17 07:07	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	125976	08/27/17 23:54	R1K	TAL PHX
Total/NA	Prep	200.8	DL		125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL	DL	4	126856	09/07/17 16:35	R1K	TAL PHX
Total/NA	Prep	200.8			125373	08/21/17 09:54	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	128517	09/27/17 12:08	TEK	TAL PHX
Total/NA	Prep	245.1			125826	08/25/17 14:26	JTG	TAL PHX
Total/NA	Analysis	245.1		1	125956	08/28/17 12:53	JTG	TAL PHX

Laboratory References:

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 550-87922-2

Laboratory: TestAmerica Phoenix

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

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

Method Summary

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

TestAmerica Job ID: 550-87922-2

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

87922

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

Client Contact	Doug Lavarnway	Doug Lavarnway	8/11/2017	COC No:
APS Four Corners	928-587-0319	Lab Contact:	Carrier:	___3___ of __6___ COCs
End of County Road 6675	Analysis Turnaround Time			Sampler:
Fruitland, New Mexico 87416				For Lab Use Only:
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX				Lab Sampling:
Project Name: CCR				
Site: Cholla				Job / SDG No.:
P O #				

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-MW7-81017 -01	8/10/2017	1541	G	W	2	N	x	x	x	x	x	
FC-CCR-MW49A-81017 -02	8/10/2017	1630	G	W	2	N	x	x	x	x	x	
FC-CCR-MW60-81017 -03	8/10/2017	1457	G	W	2	N	x	x	x	x	x	
FC-CCR-MW61-81017 -04	8/10/2017	1334	G	W	2	N	x	x	x	x	x	
FC-CCR-MW62-8917 -05	8/9/2017	1531	G	W	2	N	x	x	x	x	x	
FC-CCR-MW63-8917 -06	8/9/2017	1620	G	W	2	N	x	x	x	x	x	
FC-CCR-MW64-8917 -07	8/9/2017	1657	G	W	2	N	x	x	x	x	x	
FC-CCR-MW65-8917 -08	8/9/2017	1408	G	W	2	N	x	x	x	x	x	
FC-CCR-MW66-8917 -09	8/9/2017	1454	G	W	2	N	x	x	x	x	x	

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

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

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

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

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

Special Instructions/QC Requirements & Comments:

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Doug Lavarnway	APS	8/11 1053			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 8/11/17 1515

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

87922

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

9/28/2017 (Rev. 1)

Regulatory Program: CCR

Client Contact	**Doug Lavarnway**	**Doug Lavarnway**	**8/11/2017**	COC No:
APS Four Corners	928-587-0319	**Lab Contact:**	**Carrier:**	___4___ of __6___ COCs
End of County Road 6675	**Analysis Turnaround Time**			Sampler:
Fruitland, New Mexico 87416				**For Lab Use Only:**
(928) 587-0319 Phone	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX				Lab Sampling:
Project Name: CCR				
Site: Cholla				Job / SDG No.:
P O #				

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-MW67-8917 -10	8/9/2017	1205	G	W	2	N	x	x	x	x	x	
FC-CCR-MW68-8917 -11	8/9/2017	1250	G	W	2	N	x	x	x	x	x	
FC-CCR-MW69-8917 -12	8/9/2017	1049	G	W	2	N	x	x	x	x	x	
FC-CCR-FD01-8917 -13	8/9/2017	1049	G	W	2	N	x	x	x	x	x	
FC-CCR-MW70-8917 -14	8/9/2017	1728	G	W	2	N	x	x	x	x	x	
FC-CCR-MW71-81017 -15	8/10/2017	1037	G	W	2	N	x	x	x	x	x	
FC-CCR-MW72-81017 -16	8/10/2017	935	G	W	2	N	x	x	x	x	x	
FC-CCR-FD02-81017 -17	8/10/2017	935	G	W	2	N	x	x	x	x	x	
FC-CCR-MW73-81017 -18	8/10/2017	1123	G	W	2	N	x	x	x	x	x	
FC-CCR-MW74-81017 -19	8/10/2017	1207	G	W	2	N	x	x	x	x	x	
FC-CCR-MW75-81017 -20	8/10/2017	1416	G	W	2	N	x	x	x	x	x	

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

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

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

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

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

Special Instructions/QC Requirements & Comments:

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Doug Lavarnway	APS	8/11 1503			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 8/11/17 - 1515

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

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-87922-2

Login Number: 87922
List Number: 1
Creator: Gravlin, Andrea

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.