TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 240-61853-1
Client Project/Site: APS Four Corners Power Plant

For:
AECOM Technical Services Inc.
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Attn: Dan Sola

Authorized for release by:
3/22/2016 2:28:11 PM

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

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

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Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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: 240-61853-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: AECOM Technical Services Inc.

Project: APS Four Corners Power Plant

Report Number: 240-61853-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 3/8/2016 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1º C.

TOTAL RECOVERABLE METALS (ICPMS)

Samples FC-CCR-MW-71-030516 (240-61853-1), FC-CCR-FD-2-030516 (240-61853-2) and FC-CCR-MW72-030716 (240-61853-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 03/10/2016 and analyzed on 03/18/2016 and 03/21/2016.

Several analytes were detected in method blank MB 240-220945/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples FC-CCR-MW-71-030516 (240-61853-1)[5X], FC-CCR-FD-2-030516 (240-61853-2)[5X] and FC-CCR-MW72-030716 (240-61853-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: FC-CCR-MW-71-030516 (240-61853-1), FC-CCR-FD-2-030516 (240-61853-2) and FC-CCR-MW72-030716 (240-61853-3). The continuing calibration blanks and method blanks may not support the lower PQL.

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

Job ID: 240-61853-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MERCURY
Samples FC-CCR-MW-71-030516 (240-61853-1), FC-CCR-FD-2-030516 (240-61853-2) and FC-CCR-MW72-030716 (240-61853-3) were analyzed for mercury in accordance with EPA Method 245.1. The samples were prepared on 03/10/2016 and analyzed on 03/11/2016.

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

ALKALINITY
Samples FC-CCR-MW-71-030516 (240-61853-1), FC-CCR-FD-2-030516 (240-61853-2) and FC-CCR-MW72-030716 (240-61853-3) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 03/11/2016.

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

TOTAL DISSOLVED SOLIDS
Samples FC-CCR-MW-71-030516 (240-61853-1), FC-CCR-FD-2-030516 (240-61853-2) and FC-CCR-MW72-030716 (240-61853-3) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 03/11/2016.

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

ANIONS
Samples FC-CCR-MW-71-030516 (240-61853-1), FC-CCR-FD-2-030516 (240-61853-2) and FC-CCR-MW72-030716 (240-61853-3) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 03/18/2016 and 03/21/2016.

Samples FC-CCR-MW-71-030516 (240-61853-1)[100X], FC-CCR-MW-71-030516 (240-61853-1)[5X], FC-CCR-FD-2-030516 (240-61853-2)[100X], FC-CCR-FD-2-030516 (240-61853-2)[5X], FC-CCR-MW72-030716 (240-61853-3)[100X] and FC-CCR-MW72-030716 (240-61853-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

NITRATE-NITRITE AS NITROGEN
Samples FC-CCR-MW-71-030516 (240-61853-1), FC-CCR-FD-2-030516 (240-61853-2) and FC-CCR-MW72-030716 (240-61853-3) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 03/16/2016.

Samples FC-CCR-MW-71-030516 (240-61853-1)[100X], FC-CCR-FD-2-030516 (240-61853-2)[100X] and FC-CCR-MW72-030716 (240-61853-3)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL CAN
245.1	Mercury (CVAA)	EPA	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-61853-1	FC-CCR-MW-71-030516	Water	03/05/16 10:20	03/08/16 09:40
240-61853-2	FC-CCR-FD-2-030516	Water	03/05/16 00:00	03/08/16 09:40
240-61853-3	FC-CCR-MW72-030716	Water	03/07/16 08:50	03/08/16 09:40

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-MW-71-030516 — Lab Sample ID: 240-61853-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.016		0.0050	0.00018	mg/L	1		200.8	Total Recoverable
Boron	0.44		0.10	0.055	mg/L	5		200.8	Total Recoverable
Barium	0.027	B	0.0050	0.0011	mg/L	1		200.8	Total Recoverable
Beryllium	0.00064	J	0.0010	0.000053	mg/L	1		200.8	Total Recoverable
Calcium	450	B	1.0	0.24	mg/L	1		200.8	Total Recoverable
Cadmium	0.00019	J	0.0010	0.000061	mg/L	1		200.8	Total Recoverable
Cobalt	0.0028		0.0010	0.000021	mg/L	1		200.8	Total Recoverable
Chromium	0.00078	J	0.0020	0.00020	mg/L	1		200.8	Total Recoverable
Nickel	0.0066	B	0.0020	0.00023	mg/L	1		200.8	Total Recoverable
Molybdenum	0.0028	J	0.010	0.00023	mg/L	1		200.8	Total Recoverable
Lead	0.00061	J	0.0010	0.00011	mg/L	1		200.8	Total Recoverable
Antimony	0.00016	J	0.0020	0.00016	mg/L	1		200.8	Total Recoverable
Selenium	0.19		0.0050	0.00025	mg/L	1		200.8	Total Recoverable
Magnesium	1600	B	5.0	0.24	mg/L	5		200.8	Total Recoverable
Potassium	23	B	1.0	0.030	mg/L	1		200.8	Total Recoverable
Sodium	880	B	5.0	0.34	mg/L	5		200.8	Total Recoverable
Lithium	0.28		0.0080	0.00029	mg/L	1		200.8	Total Recoverable
Thallium	0.00031	J	0.0010	0.000074	mg/L	1		200.8	Total Recoverable
Alkalinity	490		5.0	1.9	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490		5.0	1.9	mg/L	1		2320B-1997	Total/NA
Chloride	660		5.0	2.0	mg/L	5		300.0	Total/NA
Sulfate	8500		100	13	mg/L	100		300.0	Total/NA
Nitrate Nitrite as N	190		5.0	1.0	mg/L	100		353.2	Total/NA
Total Dissolved Solids	13000		100	74	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-FD-2-030516 — Lab Sample ID: 240-61853-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.017		0.0050	0.00018	mg/L	1		200.8	Total Recoverable
Boron	0.46		0.10	0.055	mg/L	5		200.8	Total Recoverable
Barium	0.025	B	0.0050	0.0011	mg/L	1		200.8	Total Recoverable
Calcium	480	B	1.0	0.24	mg/L	1		200.8	Total Recoverable
Cadmium	0.00010	J	0.0010	0.000061	mg/L	1		200.8	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-FD-2-030516 (Continued) — Lab Sample ID: 240-61853-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0028		0.0010	0.000021	mg/L	1		200.8	Total Recoverable
Chromium	0.00054	J	0.0020	0.00020	mg/L	1		200.8	Total Recoverable
Nickel	0.0068	B	0.0020	0.00023	mg/L	1		200.8	Total Recoverable
Molybdenum	0.0029	J	0.010	0.00023	mg/L	1		200.8	Total Recoverable
Lead	0.00021	J	0.0010	0.00011	mg/L	1		200.8	Total Recoverable
Selenium	0.20		0.0050	0.00025	mg/L	1		200.8	Total Recoverable
Magnesium	1700	B	5.0	0.24	mg/L	5		200.8	Total Recoverable
Potassium	24	B	1.0	0.030	mg/L	1		200.8	Total Recoverable
Sodium	940	B	5.0	0.34	mg/L	5		200.8	Total Recoverable
Lithium	0.28		0.0080	0.00029	mg/L	1		200.8	Total Recoverable
Thallium	0.00026	J	0.0010	0.000074	mg/L	1		200.8	Total Recoverable
Alkalinity	410		5.0	1.9	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	410		5.0	1.9	mg/L	1		2320B-1997	Total/NA
Chloride	670		5.0	2.0	mg/L	5		300.0	Total/NA
Sulfate	8500		100	13	mg/L	100		300.0	Total/NA
Nitrate Nitrite as N	200		5.0	1.0	mg/L	100		353.2	Total/NA
Total Dissolved Solids	13000		100	74	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-MW72-030716 — Lab Sample ID: 240-61853-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.011		0.0050	0.00018	mg/L	1		200.8	Total Recoverable
Boron	0.16		0.020	0.011	mg/L	1		200.8	Total Recoverable
Barium	0.035	B	0.0050	0.0011	mg/L	1		200.8	Total Recoverable
Calcium	480	B	1.0	0.24	mg/L	1		200.8	Total Recoverable
Cadmium	0.000078	J	0.0010	0.000061	mg/L	1		200.8	Total Recoverable
Cobalt	0.019		0.0010	0.000021	mg/L	1		200.8	Total Recoverable
Chromium	0.00044	J	0.0020	0.00020	mg/L	1		200.8	Total Recoverable
Nickel	0.014	B	0.0020	0.00023	mg/L	1		200.8	Total Recoverable
Molybdenum	0.011		0.010	0.00023	mg/L	1		200.8	Total Recoverable
Lead	0.00013	J	0.0010	0.00011	mg/L	1		200.8	Total Recoverable
Selenium	0.13		0.0050	0.00025	mg/L	1		200.8	Total Recoverable
Magnesium	2300	B	5.0	0.24	mg/L	5		200.8	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-MW72-030716 (Continued) — Lab Sample ID: 240-61853-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	29	B	1.0	0.030	mg/L	1		200.8	Total Recoverable
Sodium	720	B	5.0	0.34	mg/L	5		200.8	Total Recoverable
Lithium	0.33		0.0080	0.00029	mg/L	1		200.8	Total Recoverable
Thallium	0.0012		0.0010	0.000074	mg/L	1		200.8	Total Recoverable
Alkalinity	620		5.0	1.9	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	620		5.0	1.9	mg/L	1		2320B-1997	Total/NA
Chloride	490		5.0	2.0	mg/L	5		300.0	Total/NA
Sulfate	12000		100	13	mg/L	100		300.0	Total/NA
Nitrate Nitrite as N	210		5.0	1.0	mg/L	100		353.2	Total/NA
Total Dissolved Solids	17000		100	74	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-MW-71-030516

Lab Sample ID: 240-61853-1

Date Collected: 03/05/16 10:20
Matrix: Water
Date Received: 03/08/16 09:40

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016		0.0050	0.00018	mg/L		03/10/16 08:44	03/21/16 14:19	1
Boron	0.44		0.10	0.055	mg/L		03/10/16 08:44	03/21/16 14:23	5
Barium	0.027	B	0.0050	0.0011	mg/L		03/10/16 08:44	03/21/16 14:19	1
Beryllium	0.00064	J	0.0010	0.000053	mg/L		03/10/16 08:44	03/18/16 13:14	1
Calcium	450	B	1.0	0.24	mg/L		03/10/16 08:44	03/21/16 14:19	1
Cadmium	0.00019	J	0.0010	0.000061	mg/L		03/10/16 08:44	03/21/16 14:19	1
Cobalt	0.0028		0.0010	0.000021	mg/L		03/10/16 08:44	03/21/16 14:19	1
Chromium	0.00078	J	0.0020	0.00020	mg/L		03/10/16 08:44	03/21/16 14:19	1
Nickel	0.0066	B	0.0020	0.00023	mg/L		03/10/16 08:44	03/21/16 14:19	1
Molybdenum	0.0028	J	0.010	0.00023	mg/L		03/10/16 08:44	03/21/16 14:19	1
Lead	0.00061	J	0.0010	0.00011	mg/L		03/10/16 08:44	03/21/16 14:19	1
Antimony	0.00016	J	0.0020	0.00016	mg/L		03/10/16 08:44	03/21/16 14:19	1
Selenium	0.19		0.0050	0.00025	mg/L		03/10/16 08:44	03/21/16 14:19	1
Magnesium	1600	B	5.0	0.24	mg/L		03/10/16 08:44	03/21/16 14:23	5
Potassium	23	B	1.0	0.030	mg/L		03/10/16 08:44	03/21/16 14:19	1
Sodium	880	B	5.0	0.34	mg/L		03/10/16 08:44	03/21/16 14:23	5
Lithium	0.28		0.0080	0.00029	mg/L		03/10/16 08:44	03/18/16 13:14	1
Thallium	0.00031	J	0.0010	0.000074	mg/L		03/10/16 08:44	03/21/16 14:19	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.000090	mg/L		03/10/16 12:00	03/11/16 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	490		5.0	1.9	mg/L			03/11/16 13:13	1
Bicarbonate Alkalinity as CaCO3	490		5.0	1.9	mg/L			03/11/16 13:13	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	1.9	mg/L			03/11/16 13:13	1
Chloride	660		5.0	2.0	mg/L			03/18/16 09:59	5
Fluoride	0.050	U	0.050	0.0090	mg/L			03/21/16 11:56	1
Sulfate	8500		100	13	mg/L			03/18/16 10:15	100
Nitrate Nitrite as N	190		5.0	1.0	mg/L			03/16/16 15:46	100
Total Dissolved Solids	13000		100	74	mg/L			03/11/16 14:25	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-FD-2-030516

Lab Sample ID: 240-61853-2

Date Collected: 03/05/16 00:00
Matrix: Water
Date Received: 03/08/16 09:40

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.017		0.0050	0.00018	mg/L		03/10/16 08:44	03/21/16 14:27	1
Boron	0.46		0.10	0.055	mg/L		03/10/16 08:44	03/21/16 14:31	5
Barium	0.025	B	0.0050	0.0011	mg/L		03/10/16 08:44	03/21/16 14:27	1
Beryllium	0.0010	U	0.0010	0.000053	mg/L		03/10/16 08:44	03/18/16 13:22	1
Calcium	480	B	1.0	0.24	mg/L		03/10/16 08:44	03/21/16 14:27	1
Cadmium	0.00010	J	0.0010	0.000061	mg/L		03/10/16 08:44	03/21/16 14:27	1
Cobalt	0.0028		0.0010	0.000021	mg/L		03/10/16 08:44	03/21/16 14:27	1
Chromium	0.00054	J	0.0020	0.00020	mg/L		03/10/16 08:44	03/21/16 14:27	1
Nickel	0.0068	B	0.0020	0.00023	mg/L		03/10/16 08:44	03/21/16 14:27	1
Molybdenum	0.0029	J	0.010	0.00023	mg/L		03/10/16 08:44	03/21/16 14:27	1
Lead	0.00021	J	0.0010	0.00011	mg/L		03/10/16 08:44	03/21/16 14:27	1
Antimony	0.0020	U	0.0020	0.00016	mg/L		03/10/16 08:44	03/21/16 14:27	1
Selenium	0.20		0.0050	0.00025	mg/L		03/10/16 08:44	03/21/16 14:27	1
Magnesium	1700	B	5.0	0.24	mg/L		03/10/16 08:44	03/21/16 14:31	5
Potassium	24	B	1.0	0.030	mg/L		03/10/16 08:44	03/21/16 14:27	1
Sodium	940	B	5.0	0.34	mg/L		03/10/16 08:44	03/21/16 14:31	5
Lithium	0.28		0.0080	0.00029	mg/L		03/10/16 08:44	03/18/16 13:22	1
Thallium	0.00026	J	0.0010	0.000074	mg/L		03/10/16 08:44	03/21/16 14:27	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.000090	mg/L		03/10/16 12:00	03/11/16 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	410		5.0	1.9	mg/L			03/11/16 13:13	1
Bicarbonate Alkalinity as CaCO3	410		5.0	1.9	mg/L			03/11/16 13:13	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	1.9	mg/L			03/11/16 13:13	1
Chloride	670		5.0	2.0	mg/L			03/18/16 11:21	5
Fluoride	0.050	U	0.050	0.0090	mg/L			03/21/16 12:15	1
Sulfate	8500		100	13	mg/L			03/18/16 11:38	100
Nitrate Nitrite as N	200		5.0	1.0	mg/L			03/16/16 15:47	100
Total Dissolved Solids	13000		100	74	mg/L			03/11/16 14:25	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-MW72-030716

Lab Sample ID: 240-61853-3

Date Collected: 03/07/16 08:50
Matrix: Water
Date Received: 03/08/16 09:40

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.0050	0.00018	mg/L		03/10/16 08:44	03/21/16 14:36	1
Boron	0.16		0.020	0.011	mg/L		03/10/16 08:44	03/21/16 14:36	1
Barium	0.035	B	0.0050	0.0011	mg/L		03/10/16 08:44	03/21/16 14:36	1
Beryllium	0.0010	U	0.0010	0.000053	mg/L		03/10/16 08:44	03/18/16 13:31	1
Calcium	480	B	1.0	0.24	mg/L		03/10/16 08:44	03/21/16 14:36	1
Cadmium	0.000078	J	0.0010	0.000061	mg/L		03/10/16 08:44	03/21/16 14:36	1
Cobalt	0.019		0.0010	0.000021	mg/L		03/10/16 08:44	03/21/16 14:36	1
Chromium	0.00044	J	0.0020	0.00020	mg/L		03/10/16 08:44	03/21/16 14:36	1
Nickel	0.014	B	0.0020	0.00023	mg/L		03/10/16 08:44	03/21/16 14:36	1
Molybdenum	0.011		0.010	0.00023	mg/L		03/10/16 08:44	03/21/16 14:36	1
Lead	0.00013	J	0.0010	0.00011	mg/L		03/10/16 08:44	03/21/16 14:36	1
Antimony	0.0020	U	0.0020	0.00016	mg/L		03/10/16 08:44	03/21/16 14:36	1
Selenium	0.13		0.0050	0.00025	mg/L		03/10/16 08:44	03/21/16 14:36	1
Magnesium	2300	B	5.0	0.24	mg/L		03/10/16 08:44	03/21/16 14:40	5
Potassium	29	B	1.0	0.030	mg/L		03/10/16 08:44	03/21/16 14:36	1
Sodium	720	B	5.0	0.34	mg/L		03/10/16 08:44	03/21/16 14:40	5
Lithium	0.33		0.0080	0.00029	mg/L		03/10/16 08:44	03/18/16 13:31	1
Thallium	0.0012		0.0010	0.000074	mg/L		03/10/16 08:44	03/21/16 14:36	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.000090	mg/L		03/10/16 12:00	03/11/16 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	620		5.0	1.9	mg/L			03/11/16 13:13	1
Bicarbonate Alkalinity as CaCO3	620		5.0	1.9	mg/L			03/11/16 13:13	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	1.9	mg/L			03/11/16 13:13	1
Chloride	490		5.0	2.0	mg/L			03/18/16 12:10	5
Fluoride	0.050	U	0.050	0.0090	mg/L			03/21/16 12:33	1
Sulfate	12000		100	13	mg/L			03/18/16 12:27	100
Nitrate Nitrite as N	210		5.0	1.0	mg/L			03/16/16 15:48	100
Total Dissolved Solids	17000		100	74	mg/L			03/11/16 14:25	1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 240-220945/1-A
Matrix: Water
Analysis Batch: 222209

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0010	U	0.0010	0.000053	mg/L		03/10/16 08:44	03/18/16 13:05	1
Lithium	0.0080	U	0.0080	0.00029	mg/L		03/10/16 08:44	03/18/16 13:05	1

Lab Sample ID: MB 240-220945/1-A
Matrix: Water
Analysis Batch: 222513

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 220945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0050	U	0.0050	0.00018	mg/L		03/10/16 08:44	03/21/16 14:11	1
Boron	0.020	U	0.020	0.011	mg/L		03/10/16 08:44	03/21/16 14:11	1
Barium	0.00198	J	0.0050	0.0011	mg/L		03/10/16 08:44	03/21/16 14:11	1
Calcium	0.588	J	1.0	0.24	mg/L		03/10/16 08:44	03/21/16 14:11	1
Cadmium	0.0010	U	0.0010	0.000061	mg/L		03/10/16 08:44	03/21/16 14:11	1
Cobalt	0.0010	U	0.0010	0.000021	mg/L		03/10/16 08:44	03/21/16 14:11	1
Chromium	0.0020	U	0.0020	0.00020	mg/L		03/10/16 08:44	03/21/16 14:11	1
Nickel	0.000236	J	0.0020	0.00023	mg/L		03/10/16 08:44	03/21/16 14:11	1
Molybdenum	0.010	U	0.010	0.00023	mg/L		03/10/16 08:44	03/21/16 14:11	1
Lead	0.0010	U	0.0010	0.00011	mg/L		03/10/16 08:44	03/21/16 14:11	1
Antimony	0.0020	U	0.0020	0.00016	mg/L		03/10/16 08:44	03/21/16 14:11	1
Selenium	0.0050	U	0.0050	0.00025	mg/L		03/10/16 08:44	03/21/16 14:11	1
Magnesium	0.149	J	1.0	0.048	mg/L		03/10/16 08:44	03/21/16 14:11	1
Potassium	0.118	J	1.0	0.030	mg/L		03/10/16 08:44	03/21/16 14:11	1
Sodium	0.113	J	1.0	0.068	mg/L		03/10/16 08:44	03/21/16 14:11	1
Thallium	0.0010	U	0.0010	0.000074	mg/L		03/10/16 08:44	03/21/16 14:11	1

Lab Sample ID: LCS 240-220945/2-A
Matrix: Water
Analysis Batch: 222209

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	0.914		mg/L		91	85 - 115
Lithium	0.100	0.0955		mg/L		96	85 - 115

Lab Sample ID: LCS 240-220945/2-A
Matrix: Water
Analysis Batch: 222513

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 220945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.851		mg/L		85	85 - 115
Boron	0.100	0.0858		mg/L		86	85 - 115
Barium	1.00	0.932		mg/L		93	85 - 115
Calcium	10.0	9.33		mg/L		93	85 - 115
Cadmium	1.00	0.911		mg/L		91	85 - 115
Cobalt	1.00	0.958		mg/L		96	85 - 115
Chromium	1.00	0.962		mg/L		96	85 - 115
Nickel	1.00	0.923		mg/L		92	85 - 115
Molybdenum	0.100	0.0895		mg/L		89	85 - 115
Lead	1.00	0.865		mg/L		87	85 - 115
Antimony	0.100	0.0946		mg/L		95	85 - 115

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

Lab Sample ID: LCS 240-220945/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 222513 — **Prep Batch: 220945**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	1.00	0.869		mg/L		87	85 - 115
Magnesium	10.0	8.94		mg/L		89	85 - 115
Potassium	10.0	9.15		mg/L		92	85 - 115
Sodium	10.0	8.66		mg/L		87	85 - 115
Thallium	0.250	0.218		mg/L		87	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-220946/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221388 — **Prep Batch: 220946**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.000090	mg/L		03/10/16 12:00	03/11/16 11:42	1

Lab Sample ID: LCS 240-220946/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221388 — **Prep Batch: 220946**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00552		mg/L		110	85 - 115

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-221179/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221179

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	1.9	mg/L			03/11/16 11:36	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	1.9	mg/L			03/11/16 11:36	1

Lab Sample ID: LCS 240-221179/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221179

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	284	290		mg/L		102	90 - 127

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-221989/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221989

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.050	U	0.050	0.0090	mg/L			03/17/16 09:45	1
Sulfate	1.0	U	1.0	0.13	mg/L			03/17/16 09:45	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-221989/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221989

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	52.0		mg/L		104	90 - 110

Lab Sample ID: MB 240-222082/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.41	mg/L			03/18/16 07:48	1
Sulfate	1.0	U	1.0	0.13	mg/L			03/18/16 07:48	1

Lab Sample ID: LCS 240-222082/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.5		mg/L		103	90 - 110
Sulfate	50.0	46.8		mg/L		94	90 - 110

Lab Sample ID: MB 240-222463/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222463

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.41	mg/L			03/21/16 11:20	1
Fluoride	0.050	U	0.050	0.0090	mg/L			03/21/16 11:20	1
Sulfate	1.0	U	1.0	0.13	mg/L			03/21/16 11:20	1

Lab Sample ID: LCS 240-222463/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 222463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.8		mg/L		104	90 - 110
Fluoride	2.50	2.39		mg/L		96	90 - 110
Sulfate	50.0	48.1		mg/L		96	90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 240-221887/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.050	U	0.050	0.010	mg/L			03/16/16 15:44	1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 240-221887/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.93	1.99		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-221134/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221134

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	7.4	mg/L			03/11/16 09:55	1

Lab Sample ID: LCS 240-221134/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 221134

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	281	293		mg/L		104	88 - 110

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Metals

Prep Batch: 220945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total Recoverable	Water	200.8	
240-61853-2	FC-CCR-FD-2-030516	Total Recoverable	Water	200.8	
240-61853-3	FC-CCR-MW72-030716	Total Recoverable	Water	200.8	
LCS 240-220945/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
MB 240-220945/1-A	Method Blank	Total Recoverable	Water	200.8	

Prep Batch: 220946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	245.1	
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	245.1	
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	245.1	
LCS 240-220946/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 240-220946/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 221388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	245.1	220946
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	245.1	220946
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	245.1	220946
LCS 240-220946/2-A	Lab Control Sample	Total/NA	Water	245.1	220946
MB 240-220946/1-A	Method Blank	Total/NA	Water	245.1	220946

Analysis Batch: 222209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total Recoverable	Water	200.8	220945
240-61853-2	FC-CCR-FD-2-030516	Total Recoverable	Water	200.8	220945
240-61853-3	FC-CCR-MW72-030716	Total Recoverable	Water	200.8	220945
LCS 240-220945/2-A	Lab Control Sample	Total Recoverable	Water	200.8	220945
MB 240-220945/1-A	Method Blank	Total Recoverable	Water	200.8	220945

Analysis Batch: 222513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total Recoverable	Water	200.8	220945
240-61853-1	FC-CCR-MW-71-030516	Total Recoverable	Water	200.8	220945
240-61853-2	FC-CCR-FD-2-030516	Total Recoverable	Water	200.8	220945
240-61853-2	FC-CCR-FD-2-030516	Total Recoverable	Water	200.8	220945
240-61853-3	FC-CCR-MW72-030716	Total Recoverable	Water	200.8	220945
240-61853-3	FC-CCR-MW72-030716	Total Recoverable	Water	200.8	220945
LCS 240-220945/2-A	Lab Control Sample	Total Recoverable	Water	200.8	220945
MB 240-220945/1-A	Method Blank	Total Recoverable	Water	200.8	220945

General Chemistry

Analysis Batch: 221134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	SM 2540C	
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	SM 2540C	
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	SM 2540C	
LCS 240-221134/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 240-221134/1	Method Blank	Total/NA	Water	SM 2540C	

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

General Chemistry (Continued)

Analysis Batch: 221179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	2320B-1997	
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	2320B-1997	
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	2320B-1997	
LCS 240-221179/3	Lab Control Sample	Total/NA	Water	2320B-1997	
MB 240-221179/2	Method Blank	Total/NA	Water	2320B-1997	

Analysis Batch: 221887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	353.2	
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	353.2	
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	353.2	
LCS 240-221887/5	Lab Control Sample	Total/NA	Water	353.2	
MB 240-221887/4	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 221989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-221989/4	Lab Control Sample	Total/NA	Water	300.0	
MB 240-221989/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 222082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	300.0	
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	300.0	
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	300.0	
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	300.0	
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	300.0	
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	300.0	
LCS 240-222082/4	Lab Control Sample	Total/NA	Water	300.0	
MB 240-222082/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 222463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-61853-1	FC-CCR-MW-71-030516	Total/NA	Water	300.0	
240-61853-2	FC-CCR-FD-2-030516	Total/NA	Water	300.0	
240-61853-3	FC-CCR-MW72-030716	Total/NA	Water	300.0	
LCS 240-222463/4	Lab Control Sample	Total/NA	Water	300.0	
MB 240-222463/3	Method Blank	Total/NA	Water	300.0	

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-MW-71-030516 — Lab Sample ID: 240-61853-1

Date Collected: 03/05/16 10:20 — **Matrix: Water**
Date Received: 03/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		1	222209	03/18/16 13:14	AS1	TAL CAN
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		1	222513	03/21/16 14:19	AS1	TAL CAN
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		5	222513	03/21/16 14:23	AS1	TAL CAN
Total/NA	Prep	245.1			220946	03/10/16 12:00	WKD	TAL CAN
Total/NA	Analysis	245.1		1	221388	03/11/16 12:32	DSH	TAL CAN
Total/NA	Analysis	2320B-1997		1	221179	03/11/16 13:13	LCN	TAL CAN
Total/NA	Analysis	300.0		1	222463	03/21/16 11:56	JMB	TAL CAN
Total/NA	Analysis	300.0		5	222082	03/18/16 09:59	LCN	TAL CAN
Total/NA	Analysis	300.0		100	222082	03/18/16 10:15	LCN	TAL CAN
Total/NA	Analysis	353.2		100	221887	03/16/16 15:46	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	221134	03/11/16 14:25	GNR	TAL CAN

Client Sample ID: FC-CCR-FD-2-030516 — Lab Sample ID: 240-61853-2

Date Collected: 03/05/16 00:00 — **Matrix: Water**
Date Received: 03/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		1	222209	03/18/16 13:22	AS1	TAL CAN
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		1	222513	03/21/16 14:27	AS1	TAL CAN
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		5	222513	03/21/16 14:31	AS1	TAL CAN
Total/NA	Prep	245.1			220946	03/10/16 12:00	WKD	TAL CAN
Total/NA	Analysis	245.1		1	221388	03/11/16 12:34	DSH	TAL CAN
Total/NA	Analysis	2320B-1997		1	221179	03/11/16 13:13	LCN	TAL CAN
Total/NA	Analysis	300.0		1	222463	03/21/16 12:15	JMB	TAL CAN
Total/NA	Analysis	300.0		5	222082	03/18/16 11:21	LCN	TAL CAN
Total/NA	Analysis	300.0		100	222082	03/18/16 11:38	LCN	TAL CAN
Total/NA	Analysis	353.2		100	221887	03/16/16 15:47	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	221134	03/11/16 14:25	GNR	TAL CAN

Client Sample ID: FC-CCR-MW72-030716 — Lab Sample ID: 240-61853-3

Date Collected: 03/07/16 08:50 — **Matrix: Water**
Date Received: 03/08/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		1	222209	03/18/16 13:31	AS1	TAL CAN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Client Sample ID: FC-CCR-MW72-030716

Lab Sample ID: 240-61853-3

Date Collected: 03/07/16 08:50
Date Received: 03/08/16 09:40

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		1	222513	03/21/16 14:36	AS1	TAL CAN
Total Recoverable	Prep	200.8			220945	03/10/16 08:44	WKD	TAL CAN
Total Recoverable	Analysis	200.8		5	222513	03/21/16 14:40	AS1	TAL CAN
Total/NA	Prep	245.1			220946	03/10/16 12:00	WKD	TAL CAN
Total/NA	Analysis	245.1		1	221388	03/11/16 12:37	DSH	TAL CAN
Total/NA	Analysis	2320B-1997		1	221179	03/11/16 13:13	LCN	TAL CAN
Total/NA	Analysis	300.0		1	222463	03/21/16 12:33	JMB	TAL CAN
Total/NA	Analysis	300.0		5	222082	03/18/16 12:10	LCN	TAL CAN
Total/NA	Analysis	300.0		100	222082	03/18/16 12:27	LCN	TAL CAN
Total/NA	Analysis	353.2		100	221887	03/16/16 15:48	JMB	TAL CAN
Total/NA	Analysis	SM 2540C		1	221134	03/11/16 14:25	GNR	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: APS Four Corners Power Plant

TestAmerica Job ID: 240-61853-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-17
Florida	NELAP	4	E87225	06-30-16
Illinois	NELAP	5	200004	07-31-16
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-23-17
Kentucky (WW)	State Program	4	98016	12-31-16
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-16
Nevada	State Program	9	OH-000482008A	07-31-16
New Jersey	NELAP	2	OH001	06-30-16 *
New York	NELAP	2	10975	03-31-16 *
Ohio VAP	State Program	5	CL0024	09-14-17
Oregon	NELAP	10	4062	02-23-17
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-17
West Virginia DEP	State Program	3	210	12-31-16
Wisconsin	State Program	5	999518190	08-31-16

* Certification renewal pending - certification considered valid.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-61853 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 tel 330.497.9396 fax 330.497.0772 www.testamericainc.com

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 189
Phoenix, AZ 85040
Phone: 602.437.3340 Fax:

1.6 | C1.1

Chain of Custody Record

097566

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other:

Client Contact			
Company Name: AECOM	Project Manager: Dan Sola	Site Contact:	Date: 3-7-16
Address: 7720 N 16th St #100	Tel/Fax:	Lab Contact: Beki Grant	Carrier: FedEX
City/State/Zip: Phoenix AZ 85020	Analysis Turnaround Time		COC No: 1 of 1 COCs
Phone: 602-648-2530	☐ CALENDAR DAYS ☐ WORKING DAYS		Sampler: Rick Smith
Fax:	TAT if different from Below _____		For Lab Use Only:
Project Name: CCR	☒ 2 weeks		Walk-in Client:
Site: APS Four Corners Power Plant	☐ 1 week		Lab Sampling:
P O #	☐ 2 days		Job / SDG No.:
	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	200.8 Total Cations (215) Acute Analytes	200.8 245.1	353.2	2320B 2450C 300	903.1 904	Sample Specific Notes:
FC-CCR-MW-71-030516	3-5-16	1020	G	GW	5				X	X	X	X	
FC-CCR-FD-2-030516	3-5-16	0000	G	GW	5				X	X	X	X	
FC-CCR-MW72-030516	3-7-16	0850	G	GW	5				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: Shipping Order # 31132 Quote # 24015200

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:
	AECOM	3-7-16 1180	To FedEX		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	3-8-16 940
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 61853
Canton Facility

Client AECOM Site Name _____ Cooler unpacked by:

Cooler Received on 3-8-16 Opened on 3-8-16

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# 48 (CF -1.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# 36 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN# I8 (CF -0.5 °C) Observed Cooler Temp. 1.6 °C Corrected Cooler Temp. 1.1 °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC559158
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
L:\QAQC\QA Department\QA TARDIS\Document Control\Work Instructions\WI-NC-099X-011816 Cooler Receipt Form.doc djl

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
FC-CCR-MW-71-030516	240-61853-A-1	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
FC-CCR-MW-71-030516	240-61853-C-1	Plastic 500ml - with Nitric Acid	<2	_____	_____
FC-CCR-MW-71-030516	240-61853-D-1	Plastic 1 liter - Nitric Acid	<2	_____	_____
FC-CCR-MW-71-030516	240-61853-E-1	Plastic 1 liter - Nitric Acid	<2	_____	_____
FC-CCR-FD-2-030516	240-61853-A-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
FC-CCR-FD-2-030516	240-61853-C-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
FC-CCR-FD-2-030516	240-61853-D-2	Plastic 1 liter - Nitric Acid	<2	_____	_____
FC-CCR-FD-2-030516	240-61853-E-2	Plastic 1 liter - Nitric Acid	<2	_____	_____
FC-CCR-MW-72-030716	240-61853-A-3	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
FC-CCR-MW-72-030716	240-61853-C-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
FC-CCR-MW-72-030716	240-61853-D-3	Plastic 1 liter - Nitric Acid	<2	_____	_____
FC-CCR-MW-72-030716	240-61853-E-3	Plastic 1 liter - Nitric Acid	<2	_____	_____