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May 24, 2013

World Resources Company  
8113 West Sherman Street  
Tolleson, Arizona 85353-4025  
Attention: Mr. Bryan Roberts



**RE:** Semiannual Groundwater Monitoring Report, April 2013  
World Resources Company, Tolleson, Arizona  
Cardno ATC Project No. 34.41558.0001

Dear Mr. Roberts:

Cardno ATC is pleased to present the following semiannual groundwater monitoring report to World Resources Company (WRC) for their facility located at 8113 West Sherman Street, Tolleson, Arizona (Site). Cardno ATC was contracted by WRC to conduct groundwater monitoring and reporting at the Site. This report is based on the Groundwater Detection Monitoring Program (DMP) as required by the Arizona Department of Environmental Quality (ADEQ). This report includes groundwater monitoring data and laboratory analyses.

Cardno ATC relied on the written DMP, ©1997-2005, by WORLD RESOURCES COMPANY (all rights reserved). Historical groundwater analytical results for the Site are presented in the *Semi-Annual Groundwater Monitoring Report, December 2005, Tolleson, Arizona*, dated February 7, 2006, prepared by ARCADIS and the *Semi-Annual Groundwater Monitoring Report, December 2010, World Resources Company, Tolleson, Arizona*, dated December 13, 2010, prepared by Valley Land Partners, LLC.

The DMP is required by the Code of Federal Regulations, Title 40, Part 264.91(a)(4) [40 CFR 264.91(a)(4)] and is described in the Resource Conservation and Recovery Act (RCRA) Facility Hazardous Permit Application Part B, dated May 1, 1997 (AZ HWMA RCRA PERMIT, EPA ID No. AZD980735500). As described in the DMP, subsequent to an initial 2-year phase of detection monitoring, an ongoing DMP will be implemented, in accordance with 40 CFR 264.98(h). The ongoing DMP involves those monitor wells most appropriately located at and downgradient of the Point of Compliance.

A Cardno ATC representative conducted groundwater monitoring at the Site on April 23, 2013. During this investigation, three monitor wells (MW-9, MW-10 and MW-11) contained sufficient groundwater for reliable samples, consistent with previous monitoring events. Laboratory analyses were performed on groundwater samples collected at monitor wells MW-9, MW-10 and MW-11 as specified in the DMP. Groundwater sampling results are discussed below in Section 3.0.

### 1.0 Introduction

This report presents groundwater monitoring data collected on April 23, 2013 at the Site. The groundwater investigation was conducted based on the DMP. The Site is located in the SW ¼, SW ¼, Section 11, Township 1 North, Range 1 East, Gila and Salt River Meridian and Base Line in Maricopa County, Arizona. The approximate elevation of the Site is 1,010 feet above

mean sea level. The Site is located approximately 1.5 miles south of Interstate 10 and 0.2 mile east of 83<sup>rd</sup> Avenue in Tolleson, Arizona. The Site is bound to the north by Sherman Street, as depicted on attached Figure 1, Site Vicinity Map.

A total of 11 monitor wells (MW-1 through MW-11) have been installed at the Site. Six monitor wells (MW-1, MW-2, MW-3, MW-4, MW-5 and MW-8) have been abandoned. The remaining five monitor wells are depicted on attached Figure 2, Site Location and Potentiometric Surface Map (04/23/13).

## 2.0 Field Activities

Semiannual groundwater monitoring was conducted at the Site on April 23, 2013. Depth to groundwater was gauged at monitor wells MW-6, MW-7, MW-9, MW-10 and MW-11. Monitoring activities included measuring groundwater elevations in these five groundwater monitor wells. Groundwater elevations in monitor wells MW-9, MW-10 and MW-11 decreased an average of 1.59 feet since the October 2012 monitoring event. The water level indicator was decontaminated between well measurements utilizing a solution of biodegradable, phosphate-free Liquinox<sup>®</sup>, rinse water and distilled water.

Groundwater was measured at monitor well MW-6 at a depth of 84.89 feet below top of casing (TOC). The bottom of casing in well MW-6 was measured at 85.20 feet below TOC. Therefore, MW-6 contained approximately 0.31 feet of water, which is likely water trapped in the end cap of the well and is not considered a reliable groundwater elevation.

Groundwater was measured at monitor well MW-7 at a depth of 90.10 feet below TOC. The bottom of casing in well MW-7 was measured at 90.25 feet below TOC. Therefore, MW-7 contained approximately 0.15 feet of water, which is likely water trapped in the end cap of the well and is not considered a reliable groundwater elevation.

Depth to groundwater measurements and groundwater elevations are depicted in attached Table 1, Groundwater Monitoring Data. Groundwater elevations and potentiometric surface map are depicted on Figure 2. The groundwater flow direction observed during this monitoring event is generally toward the north-northwest. Historically, groundwater flow direction at the Site has been toward the north-northwest.

On April 23, 2013, subsequent to measuring static groundwater levels, Cardno ATC utilized a low-flow, adjustable, submersible, GRUNDFOS<sup>®</sup> 2-inch diameter pump to purge groundwater at monitor wells MW-9, MW-10 and MW-11. Monitor wells MW-6 and MW-7 were not sampled due to insufficient volumes of groundwater inside the well casings.

Groundwater was pumped from wells MW-9, MW-10 and MW-11 at an approximate rate of 400 milliliters per minute. Cardno ATC measured the water quality parameters dissolved oxygen, pH, color, odor, conductivity, oxidation-reduction potential and temperature during each purging event. Field Data Sheets are included in attached Appendix A. Subsequent to purging each well and stabilization of the water quality parameters, groundwater samples were collected directly from the discharge tube. Groundwater samples were stored in laboratory supplied containers and placed in a cooler with ice.

One quality assurance/quality control (QA/QC) equipment blank and one blind field duplicate groundwater sample were collected during the monitoring event. The equipment blank sample was collected by pumping distilled water through the sampling pump prior to setup at the first monitor well. The blind duplicate groundwater sample was collected at monitor well MW-11 and was designated as "DUP" but the source monitor well was not specified to the laboratory. QA/QC samples were stored in laboratory supplied containers and placed in a cooler with ice.

Groundwater samples and QA/QC samples were submitted chilled, under a chain-of-custody document, to TestAmerica Laboratories Inc. (TestAmerica) in Phoenix, Arizona for analyses. Based on the DMP, groundwater samples were analyzed for dissolved metals, total cyanide and other selected inorganic groundwater constituents. The laboratory filtered the samples for dissolved metals analyses.

The submersible pump was decontaminated between well sampling events utilizing a solution of biodegradable, phosphate-free Liquinox<sup>®</sup>, rinse water and distilled water. Cardno ATC set up three five-gallon buckets to perform decontamination. The pump was first set in a five-gallon bucket with Liquinox<sup>®</sup> solution and run for approximately five minutes. The pump was then set in a five-gallon bucket with rinse water and run for approximately five minutes. Lastly, the pump was set in a five-gallon bucket with distilled water and run for approximately five minutes.

Monitor well purge water and decontamination water was placed in 55-gallon drums supplied by WRC. Cardno ATC understands that WRC treated the purge water and decontamination water on site in their wastewater treatment unit.

### **3.0 Groundwater Sampling Results**

Laboratory analytical results of groundwater samples collected during this investigation indicate that no dissolved metals exceeded their respective Aquifer Water Quality Standard (AWQS). Nitrate (as N) constituents exceeded its AWQS. Other general chemistry analytes and total cyanide did not exceed their respective AWQS. Nitrate (as N) was reported at concentrations of 11 milligrams per liter (mg/L) at monitor wells MW-9, MW-10 and MW-11, respectively (attached Table 2, Analytical Results for Inorganics in Groundwater). The AWQS for nitrate (as N) is 10.0 mg/L. Elevated concentrations of nitrate (as N) have been reported in previous investigations and were attributed to agricultural land in the general vicinity of the Site.

Analytical results for the MW-9, MW-10 and MW-11 groundwater samples plus the QA/QC samples are depicted in Table 2. A copy of the laboratory analytical report and chain-of-custody document is included in attached Appendix B.

### **4.0 Quality Assurance/Quality Control**

On April 23, 2013, TestAmerica received five sets of groundwater samples collected at the Site. The five sets of groundwater samples included one equipment blank (ID EQUIP), one blind field duplicate (ID DUP; collected from well MW-11), one sample from well MW-9 (ID MW-9), one sample from well MW-10 (ID MW-10) and one sample from well MW-11 (ID MW-11). TestAmerica reported their analyses on May 21, 2013 (Job ID: 550-1301-1). A copy of the TestAmerica report is included in Appendix B.

Cardno ATC reviewed the report for the following Quality Assurance/Quality Control parameters:

- Holding times and errors.
- Blank results and contamination.
- Laboratory control sample analysis.
- Field duplicates and other QC.
- Duplicate sample, matrix spike/matrix spike duplicate analysis.

Holding times were met for each analyte. No analytes were reported above their respective Practical Quantitation Limit for the Equipment Blank. No critical data qualifiers were reported by the laboratory.

The laboratory sample duplicate results were below 20 percent Relative Percent Difference (RPD; as defined in the laboratory report). The blind field duplicate (ID DUP; collected from well MW-11) laboratory sample results were below 20 percent RPD, as depicted in Table 2.

### 5.0 Findings and Recommendations

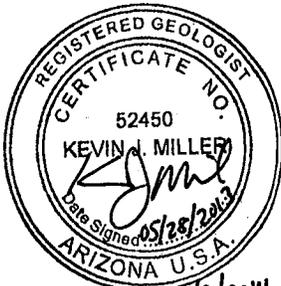
Laboratory analytical results of groundwater samples collected during this investigation indicate analytes did not exceed ADEQ established AWQS, with the exception of nitrate (as N). Elevated concentrations of nitrate (as N) have been reported in previous investigations and were attributed to fertilizers used on agricultural land in the general vicinity of the Site. On behalf of WRC, Cardno ATC recommends to continue semiannual groundwater monitoring at the Site.

### 6.0 Summary

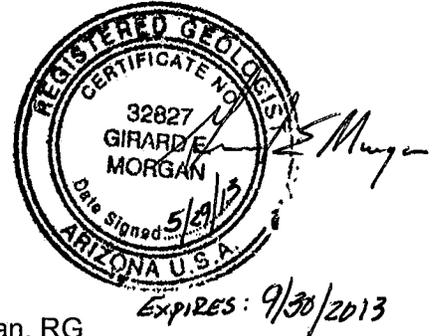
Cardno ATC has prepared this semiannual groundwater monitoring report for WRC and their facility located at 8113 West Sherman Street, Tolleson, Arizona. Our findings are based on field observations, points of investigation and results of laboratory tests performed by TestAmerica.

If additional information is required or if you have any questions regarding the information in this report, please feel free to contact Kevin Miller at (480) 355-4655.

Sincerely,



Kevin J. Miller, RG *EXPIRES 06/30/2014*  
Project Manager  
for Cardno ATC  
Direct Line +1 480 355 4655  
Email: [kevin.miller@cardno.com](mailto:kevin.miller@cardno.com)



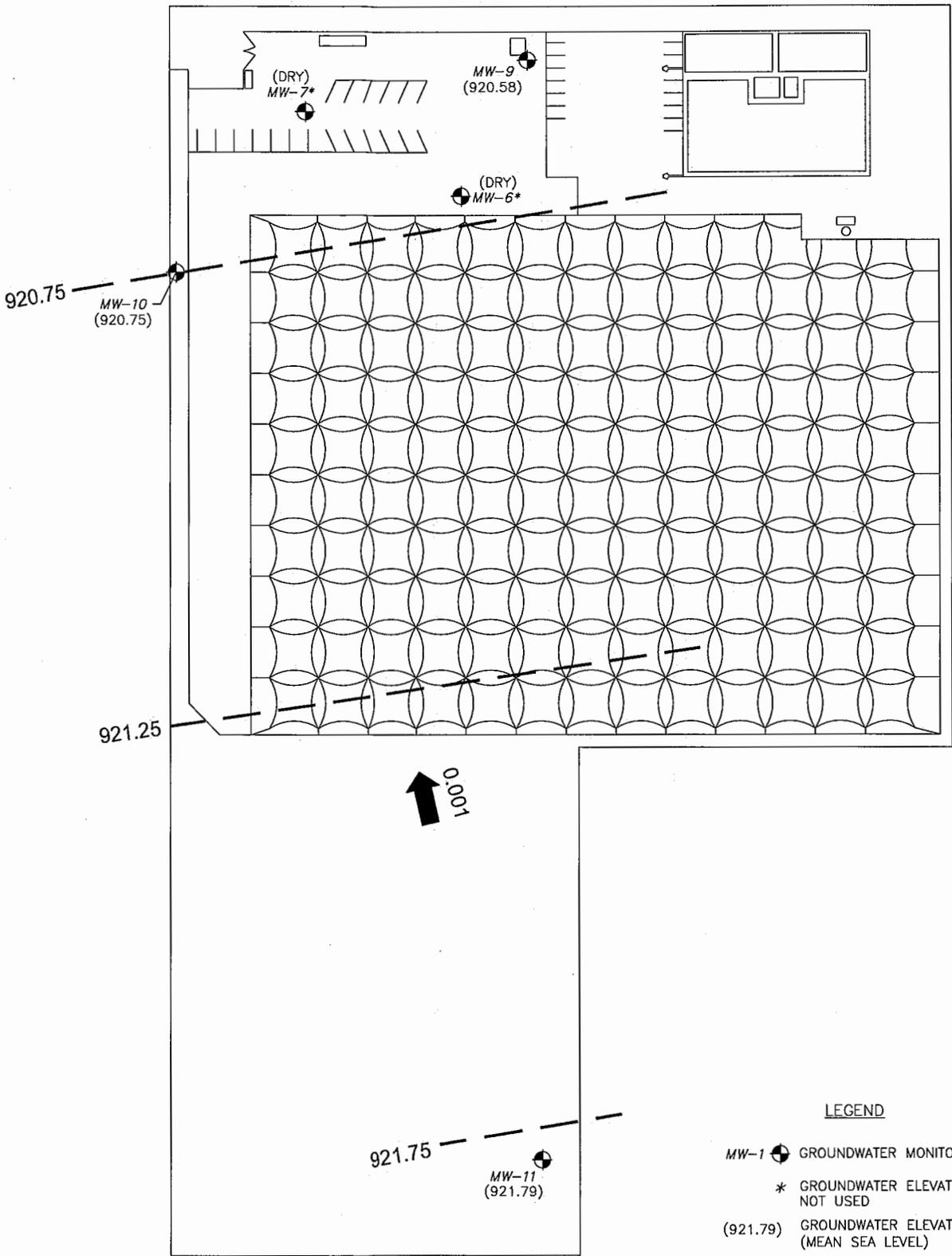
Girard E. Morgan, RG  
Principal Geologist  
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Direct Line +1 480 355 4613  
Email: [ric.morgan@cardno.com](mailto:ric.morgan@cardno.com)

Attachments: As stated.

**FIGURES**

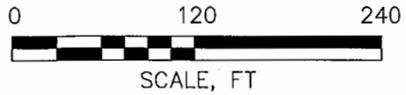


4.0 Proj/ables4. sources 411558



**LEGEND**

- MW-1 GROUNDWATER MONITOR WELL
- \* GROUNDWATER ELEVATIONS NOT USED
- (921.79) GROUNDWATER ELEVATION, FT (MEAN SEA LEVEL)
- GROUNDWATER CONTOUR (0.50 FT INTERVAL)
- GROUNDWATER GRADIENT FLOW DIRECTION, FT/FT
- NM NOT MEASURED



NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

**SITE LOCATION AND POTENTIOMETRIC SURFACE MAP (04/23/13)**  
 WORLD RESOURCES COMPANY  
 8113 W. SHERMAN STREET  
 TOLLESON, AZ

PROJECT NUMBER: 34.41558.0001	DATE: 5/8/13	FIGURE
APPROVED BY: KM	DRAWN BY: BK	2
<b>Cardno ATC</b> 9185 S. Farmer Ave., Ste. #111 Tempe, Arizona 85284-2912 Ph: (480) 894-2056 *** Fax: (480) 894-2497		

**TABLES**

**Table 1**  
**Groundwater Monitoring Data**  
**World Resources Company**  
**Tolleson, Arizona**

Monitoring Well I.D.	Wellhead Elevation MSL (ft)	Monitoring Date	Depth to Water (ft)	Groundwater Elevation MSL (ft)
MW-6	1,013.75	05/10/11	81.10	932.65
		10/18/11	84.83	928.92
		04/10/12	84.86	928.89
		10/04/12	Dry	Dry
		04/23/13	Dry	Dry
MW-7	1,016.44	05/10/11	84.21	932.23
		10/18/11	88.76	927.68
		04/10/12	-	-
		10/04/12	-	-
		04/23/13	Dry	Dry
MW-9	1,016.94	05/10/11	85.26	931.68
		10/18/11	90.37	926.57
		04/10/12	89.76	927.18
		10/04/12	94.63	922.31
		04/23/13	96.36	920.58
MW-10	1,013.24	05/10/11	81.40	931.84
		10/18/11	86.49	926.75
		04/10/12	85.89	927.35
		10/04/12	90.82	922.42
		04/23/13	92.49	920.75
MW-11	1,010.74	05/10/11	77.89	932.85
		10/18/11	83.12	927.62
		04/10/12	82.48	928.26
		10/04/12	87.58	923.16
		04/23/13	88.95	921.79

*Monitor well top of casing elevations surveyed by Malcolm Pirnie.  
MSL = Mean Sea Level*

**Table 2**  
**Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)**  
**World Resources Company**  
**Tolleson, Arizona**

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-11)	Equipment Blank	AWQS	Field Duplicate RPD
<i>General Chemistry</i>								
Chloride	4/23/2013	440	450	450	450	<2.0	NP	0.0%
Fluoride	4/23/2013	1.4	1.4	1.5	1.5	<0.40	4.0	0.0%
Sulfate	4/23/2013	190	180	190	180	<2.0	NP	5.4%
Nitrate (as N)	4/23/2013	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<0.20	10.0	0.0%
Nitrite (as N)	4/23/2013	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	4/23/2013	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	4/23/2013	1400	1400	1400	1400	<20	NP	0.0%
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	4/23/2013	400	380	390	390	<6.0	NP	0.0%
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	4/23/2013	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	4/23/2013	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as CaCO <sub>3</sub> )	4/23/2013	400	380	390	390	<6.0	NP	0.0%
Turbidity (units: NTU)	4/23/2013	0.87	<0.20	0.33	0.28	<0.20	5.0	16.4%
<i>Total Cyanide</i>								
Cyanide, Total	4/23/2013	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
<i>Dissolved Metals</i>								
Barium	4/23/2013	<0.10	<0.10	<0.10	<0.10	<0.010	2.0	-
Beryllium	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	4/23/2013	58	56	59	56	<2.0	NP	5.2%
Chromium	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.100	-
Copper	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	1.3	-
Iron	4/23/2013	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Magnesium	4/23/2013	32	30	32	31	<2.0	NP	3.2%
Manganese	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.980	-
Nickel	4/23/2013	<0.010	<0.010	<0.010	<0.010	<0.010	0.210	-
Potassium	4/23/2013	3.5	3.5	3.7	3.6	<2.0	NP	2.7%
Silver	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.035	-
Sodium	4/23/2013	420	410	430	410	<2.0	NP	4.8%
Tin	4/23/2013	<0.20	<0.20	<0.20	<0.20	<0.20	NP	-
Zinc	4/23/2013	<0.050	<0.050	<0.050	<0.050	<0.050	2.1	-
Antimony	4/23/2013	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	4/23/2013	0.0045	0.0036	0.0054	0.0052	<0.0030	0.010	3.8%
Lead	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.015	-
Mercury	4/23/2013	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	4/23/2013	0.0027	0.0022	0.0025	0.0025	<0.0020	0.050	0.0%
Thallium	4/23/2013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

**Bold** = Exceeds AWQS.

**Table 2**  
**Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)**  
**World Resources Company**  
**Tolleson, Arizona**

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-10)	Equipment Blank	AWQS	Field Duplicate RPD
<i>General Chemistry</i>								
Chloride	10/4/2012	450	450	450	450	<2.0	NP	0.0%
Fluoride	10/4/2012	1.4	1.3	1.4	1.3	<0.40	4.0	0.0%
Sulfate	10/4/2012	190	190	190	190	<2.0	NP	0.0%
Nitrate (as N)	10/4/2012	12	11	12	11	<0.20	10.0	0.0%
Nitrite (as N)	10/4/2012	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	10/4/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	10/4/2012	1400	1400	1400	1400	<20	NP	0.0%
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	10/4/2012	390	380	390	380	<6.0	NP	0.0%
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	10/4/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	10/4/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as CaCO <sub>3</sub> )	10/4/2012	390	380	390	380	<6.0	NP	0.0%
Turbidity (units: NTU)	10/4/2012	0.49	0.25	3.4	0.24	<0.20	5.0	-
<i>Total Cyanide</i>								
Cyanide, Total	10/4/2012	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
<i>Dissolved Metals</i>								
Barium	10/4/2012	0.042	0.041	0.042	0.039	<0.010	2.0	5.0%
Beryllium	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	10/4/2012	58	57	56	55	<2.0	NP	3.6%
Chromium	10/4/2012	<0.010	<0.010	<0.010	<0.010	<0.010	0.100	-
Copper	10/4/2012	<0.010	<0.010	<0.010	<0.010	<0.010	1.3	-
Iron	10/4/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Magnesium	10/4/2012	33	30	31	29	<2.0	NP	3.4%
Manganese	10/4/2012	<0.010	<0.010	<0.010	<0.010	<0.010	0.980	-
Nickel	10/4/2012	<0.010	<0.010	0.012	<0.010	<0.010	0.210	-
Potassium	10/4/2012	3.6	3.7	3.8	3.7	<2.0	NP	0.0%
Silver	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.035	-
Sodium	10/4/2012	400	400	390	390	<2.0	NP	2.5%
Tin	10/4/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Zinc	10/4/2012	<0.050	<0.050	<0.050	<0.050	<0.050	2.1	-
Antimony	10/4/2012	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	10/4/2012	0.0056	0.0052	0.0064	0.0062	<0.0010	0.010	17.5%
Lead	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.015	-
Mercury	10/4/2012	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	10/4/2012	0.0022	0.0021	0.0023	0.0025	<0.0020	0.050	17.4%
Thallium	10/4/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

**Bold = Exceeds AWQS.**

**Table 2**  
**Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)**  
**World Resources Company**  
**Tolleson, Arizona**

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-9)	Equipment Blank	AWQS	Field Duplicate RPD
<i>General Chemistry</i>								
Chloride	4/10/2012	480	480	480	480	<2.0	NP	0.0%
Fluoride	4/10/2012	1.6	1.4	1.7	1.5	<0.40	4.0	6.5%
Sulfate	4/10/2012	210	200	200	210	<2.0	NP	0.0%
Nitrate (as N)	4/10/2012	<b>14</b>	<b>12</b>	<b>13</b>	<b>14</b>	<0.20	10.0	0.0%
Nitrite (as N)	4/10/2012	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	4/10/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	4/10/2012	1500	1400	1400	1500	<20	NP	0.0%
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	4/10/2012	410	400	410	410	<6.0	NP	0.0%
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	4/10/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	4/10/2012	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as CaCO <sub>3</sub> )	4/10/2012	410	400	410	410	<6.0	NP	0.0%
Turbidity (units: NTU)	4/10/2012	<0.20	0.33	0.27	<0.20	<0.20	5.0	-
<i>Total Cyanide</i>								
Cyanide, Total	4/10/2012	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
<i>Dissolved Metals</i>								
Barium	4/10/2012	0.042	0.041	0.041	0.041	<0.010	2.0	2.4%
Beryllium	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	4/10/2012	60	58	57	58	<2.0	NP	3.4%
Chromium	4/10/2012	<0.010	<0.010	<0.010	<0.010	<0.010	0.100	-
Copper	4/10/2012	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Iron	4/10/2012	<0.050	<0.050	<0.050	<0.050	<0.050	NP	-
Magnesium	4/10/2012	34	31	33	34	<2.0	NP	0.0%
Manganese	4/10/2012	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Nickel	4/10/2012	<0.010	0.012	<0.010	<0.010	<0.010	0.100	-
Potassium	4/10/2012	3.7	3.7	3.8	3.7	<2.0	NP	0.0%
Silver	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NP	-
Sodium	4/10/2012	420	420	430	420	<2.0	NP	0.0%
Tin	4/10/2012	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Zinc	4/10/2012	0.083	<0.050	0.055	0.086	<0.050	NP	-
Antimony	4/10/2012	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	4/10/2012	0.0059	0.0053	0.0071	0.0059	<0.0010	0.050	0.0%
Lead	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.050	-
Mercury	4/10/2012	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	4/10/2012	0.0027	0.0023	0.0024	0.0029	<0.0020	0.050	7.1%
Thallium	4/10/2012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

**Bold = Exceeds AWQS.**

**Table 2**  
**Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)**  
**World Resources Company**  
**Tolleson, Arizona**

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-11)	Equipment Blank	AWQS	Field Duplicate RPD
<i>General Chemistry</i>								
Chloride	10/18/2011	490	500	420	420	<2.0	NP	0.0%
Fluoride	10/18/2011	1.3	1.1	1.5	1.5	<0.40	4.0	0.0%
Sulfate	10/18/2011	220	250	190	190	<2.0	NP	0.0%
Nitrate (as N)	10/18/2011	<b>17</b>	<b>14</b>	<b>13</b>	<b>13</b>	<0.20	10.0	0.0%
Nitrite (as N)	10/18/2011	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	-
Phosphorus, Total (as P)	10/18/2011	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Total Dissolved Solids (TDS)	10/18/2011	1500	1600	1400	1400	<20	NP	0.0%
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	10/18/2011	390	400	410	410	<6.0	NP	0.0%
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	10/18/2011	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	10/18/2011	<6.0	<6.0	<6.0	<6.0	<6.0	NP	-
Alkalinity, Total (as CaCO <sub>3</sub> )	10/18/2011	390	400	410	410	<6.0	NP	0.0%
Turbidity (units: NTU)	10/18/2011	0.38	0.67	0.27	0.28	<0.20	5.0	3.6%
<i>Total Cyanide</i>								
Cyanide, Total	10/18/2011	<0.050	<0.050	<0.050	<0.050	<0.050	0.200	-
<i>Dissolved Metals</i>								
Barium	10/18/2011	0.036	0.044	0.038	0.036	<0.010	2.0	5.4%
Beryllium	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.004	-
Cadmium	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.005	-
Calcium	10/18/2011	55	65	55	54	<2.0	NP	1.8%
Chromium	10/18/2011	0.010	<0.010	<0.010	0.011	<0.010	0.100	-
Copper	10/18/2011	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Iron	10/18/2011	<0.050	<0.050	<0.050	<0.050	<0.050	NP	-
Magnesium	10/18/2011	35	37	32	32	<2.0	NP	0.0%
Manganese	10/18/2011	<0.010	<0.010	<0.010	<0.010	<0.010	NP	-
Nickel	10/18/2011	<0.010	0.012	<0.010	<0.010	<0.010	0.100	-
Potassium	10/18/2011	3.3	3.7	3.5	3.4	<2.0	NP	2.9%
Silver	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NP	-
Sodium	10/18/2011	420	430	390	400	<2.0	NP	2.5%
Tin	10/18/2011	<0.10	<0.10	<0.10	<0.10	<0.10	NP	-
Zinc	10/18/2011	<0.050	<0.050	<0.050	<0.050	<0.050	NP	-
Antimony	10/18/2011	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	-
Arsenic	10/18/2011	0.0059	0.0051	0.0074	0.0072	<0.0010	0.050	2.7%
Lead	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.050	-
Mercury	10/18/2011	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.002	-
Selenium	10/18/2011	0.0043	0.0039	0.0027	0.0023	<0.0020	0.050	16.0%
Thallium	10/18/2011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

**Bold = Exceeds AWQS.**

**Table 2**  
**Analytical Results for Inorganics in Groundwater (units are mg/l, except as noted)**  
**World Resources Company**  
**Tolleson, Arizona**

Analyte	Date	MW-9	MW-10	MW-11	Duplicate (MW-9)	Equipment Blank	AWQS	Field Duplicate RPD
<i>General Chemistry</i>								
Chloride	5/10/2011	425	446	501	425	<1.00	NP	0.0%
Fluoride	5/10/2011	1.37	1.22	1.56	1.34	<0.500	4.0	2.2%
Sulfate	5/10/2011	172	180	200	180	<1.00	NP	4.5%
Nitrate (as N)	5/10/2011	<b>13.5</b>	<b>14.4</b>	<b>15.7</b>	<b>13.7</b>	<0.100	10.0	1.5%
Nitrite (as N)	5/10/2011	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1.0	-
Phosphorus, Total (as P)	5/10/2011	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	NP	-
Total Dissolved Solids (TDS)	5/10/2011	1400	1540	1600	1460	<10.0	NP	4.2%
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	5/10/2011	420	420	430	414	<20.0	NP	1.4%
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	5/10/2011	<20.0	<20.0	<20.0	<20.0	<20.0	NP	-
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	5/10/2011	<20.0	<20.0	<20.0	<20.0	<20.0	NP	-
Alkalinity, Total (as CaCO <sub>3</sub> )	5/10/2011	420	420	430	414	<20.0	NP	1.4%
Turbidity (units: NTU)	5/10/2011	0.420	0.202	1.08	0.410	0.145	5.0	2.4%
<i>Total Cyanide</i>								
Cyanide, Total	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.200	-
<i>Dissolved Metals</i>								
Barium	5/10/2011	0.0431	0.0446	0.0421	0.0421	<0.0100	2.0	2.3%
Beryllium	5/10/2011	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.004	-
Cadmium	5/10/2011	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	0.005	-
Calcium	5/10/2011	59.7	63.1	73.2	58.1	<1.00	NP	2.7%
Chromium	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.100	-
Copper	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	NP	-
Iron	5/10/2011	<0.100	<0.100	<0.100	<0.100	<0.100	NP	-
Magnesium	5/10/2011	33.9	33.7	43.2	33.2	<1.00	NP	2.1%
Manganese	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	NP	-
Nickel	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.100	-
Potassium	5/10/2011	8.00	9.48	7.91	7.30	<2.00	NP	9.2%
Silver	5/10/2011	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	NP	-
Sodium	5/10/2011	398	394	405	406	<2.00	NP	2.0%
Tin	5/10/2011	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	NP	-
Zinc	5/10/2011	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	NP	-
Antimony	5/10/2011	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.006	-
Arsenic	5/10/2011	<0.0100	<0.0100	0.0111	<0.0100	<0.0100	0.050	-
Lead	5/10/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.050	-
Mercury	5/10/2011	<0.000200	<0.000200	<0.000200	0.000245	<0.000200	0.002	-
Selenium	5/10/2011	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	0.050	-
Thallium	5/10/2011	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.002	-

mg/L = Milligrams per liter (equivalent to parts per million).

AWQS = Aquifer Water Quality Standard

RPD = Relative Percent Difference

NP=None published.

<0.020 = Less than the practical quantitation limit.

**Bold = Exceeds AWQS.**

**Appendix A**  
**Field Data Sheets**

Date 4/23/13

**Field Data Sheet**

Project No.	34.41558.0001	Personnel	KM
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-9	Sample ID	MW-9
Weather	Sunny, Warm, Well in mostly shade.	Duplicate ID	-

Pump Depth ~ 106' bTOC

MW TD	~150	MW TOC Elev.	
MW DTW	96.36' bTOC	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	
Purge Method	Low Flow		

Pump Time Start	12:21	Pump Time Stop	12:39
Sample Time Start	12:35	Sample Time Stop	12:39

Time	Appearance Color/Odor	D.O. mg/L	pH	EC mS/cm or uS/cm	Temp. (°C)	ORP
12:22	Clear	7.79	6.56	2.327	25.36	721.5
12:25		7.49	6.53	2.276	24.43	703.9
12:28		7.33	6.53	2.296	24.74	683.9
12:31		7.02	6.53	2.411	27.35	671.1
12:34	∇	6.83	6.54	2.467	28.42	664.9
12:37	Dunny Sample Collection	6.71	6.54	2.468	28.41	661.2

Presample Purge Volume ~ 8.5 L

Sample Container Description

Constituents	No. Bottles	Preservative
Dissolved Metals (see COC): 500 ml poly	1	None
Wet Chem. (Alk, Cl, TDS, SO <sub>4</sub> , NO <sub>3</sub> , F, Turb.): 1-	1	None
Phosphate, Backup NO <sub>3</sub> : 500 ml poly	1	H <sub>2</sub> SO <sub>4</sub>
Cyanide: 500 ml poly	1	NaOH

Field Data Sheet

Project No.	34.41558.0001	Personnel	KM
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-10	Sample ID	MW-10
Weather	Sunny, Warm	Duplicate ID	-

Pump Depth ~102' bTDC

MW TD	~150'	MW TOC Elev.	
MW DTW	92.49' bTDC	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	
Purge Method	Low Flow		

Pump Time Start	10:44	Pump Time Stop	11:07
Sample Time Start	11:00	Sample Time Stop	11:07

Time	Appearance Color/Odor	D.O. mg/L	pH	EC mS/cm or uS/cm	Temp. (°C)	ORP
10:46	Clear	5.73	6.58	2.257	24.41	745.7
10:49		5.52	6.61	2.269	24.71	728.7
10:52		5.38	6.64	2.279	24.94	715.3
10:55		5.30	6.68	2.295	25.22	703.5
10:58	↓	5.29	6.71	2.316	25.68	694.2
11:04	During Sample Collection	5.05	6.73	2.405	27.53	677.1

Pre sample Purge Volume ~ 7.5 L

Sample Container Description

Constituents	No. Bottles	Preservative
Dissolved Metals (see COC): 500 ml poly	1	None
Wet Chem. (Alk, Cl, TDS, SO <sub>4</sub> , NO <sub>3</sub> , F, Turb.): 1-	1	None
Phosphate, Backup NO <sub>3</sub> : 500 ml poly	1	H <sub>2</sub> SO <sub>4</sub>
Cyanide: 500 ml poly	1	NaOH

Date 4/23/13

Field Data Sheet

Project No.	34.41558.0001	Personnel	KM
Site Name	WRC	Site Location	Tolleson, AZ
Site/Well No.	MW-11	Sample ID	MW-11
Weather	Sunny	Duplicate ID	DUP

Pump depth = 100' bTOC

MW TD	~150	MW TOC Elev.	
MW DTW	88.95' bTOC	Casing Diam.	4 inches
Purge Rate	400 ml/min.	Water Level Elev.	
Purge Method	Low Flow		

Pump Time Start	8:57	Pump Time Stop	9:27
Sample Time Start	9:15	Sample Time Stop	9:27

Time	Appearance Color/Odor	D.O. mg/L	pH	EC (mS/cm) or uS/cm	Temp. (°C)	ORP
9:01	clear	8.67	6.62	2.248	23.82	778.5
9:04		8.80	6.60	2.276	24.43	765.3
9:07		9.08	6.58	2.315	25.03	754.4
9:10		9.54	6.59	2.340	25.59	746.7
9:13	↓	9.59	6.62	2.351	25.89	738.3
9:18	During Sample Collection	8.79	6.57	2.365	26.13	732.4

Pre-sample total purged ~ 7.5 L

Sample Container Description

<u>Constituents</u>	<u>No. Bottles</u>	<u>Preservative</u>
Dissolved Metals (see COC): 500 ml poly	1	None
Wet Chem. (Alk, Cl, TDS, SO <sub>4</sub> , NO <sub>3</sub> , F, Turb.): 1-	1	None
Phosphate, Backup NO <sub>3</sub> : 500 ml poly	1	H <sub>2</sub> SO <sub>4</sub>
Cyanide: 500 ml poly	1	NaOH

**Appendix B**

**Laboratory Groundwater Report and  
Chain of Custody Document**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

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

TestAmerica Job ID: 550-1303-1  
Client Project/Site: World Resouces Company

For:  
Cardno ATC  
9185 S Farmer Ave  
Suite 107  
Tempe, Arizona 85284

Attn: Mr. Kevin Miller



Authorized for release by:  
5/21/2013 12:14:43 PM

Linda Eshelman, Project Manager II  
linda.eshelman@testamericainc.com

### LINKS

Review your project  
results through

Total Access

Have a Question?

Ask  
The  
Expert

Visit us at:

www.testamericainc.com

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

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

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## Definitions/Glossary

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

### Qualifiers

#### HPLC/IC

Qualifier	Qualifier Description
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.

#### General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.

### 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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
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)
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)

## Case Narrative

Client: Cardno ATC  
Project/Site: World Resouces Company

TestAmerica Job ID: 550-1303-1

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**Job ID: 550-1303-1**

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**Laboratory: TestAmerica Phoenix**

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**Narrative**

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**Job Narrative**  
**550-1303-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 4/23/2013 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

**IC**

No analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

# Sample Summary

Client: Cardno ATC  
Project/Site: World Resouces Company

TestAmerica Job ID: 550-1303-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-1303-1	MW-9	Water	04/23/13 12:35	04/23/13 14:30
550-1303-2	MW-10	Water	04/23/13 11:00	04/23/13 14:30
550-1303-3	MW-11	Water	04/23/13 09:15	04/23/13 14:30
550-1303-4	Equip	Water	04/23/13 08:20	04/23/13 14:30
550-1303-5	Dup	Water	04/23/13 08:20	04/23/13 14:30

# Client Sample Results

Client: Cardno ATC  
 Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: MW-9**

**Lab Sample ID: 550-1303-1**

Date Collected: 04/23/13 12:35

Matrix: Water

Date Received: 04/23/13 14:30

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	11		0.20	mg/L			04/24/13 21:16	1
Nitrite as N	ND		0.20	mg/L			04/24/13 21:16	1
Nitrate Nitrite as N	11		0.40	mg/L			04/24/13 21:16	1
Fluoride	1.4		0.40	mg/L			04/24/13 21:16	1
Chloride	440		20	mg/L			04/25/13 01:28	10
Sulfate	190		2.0	mg/L			04/24/13 21:16	1

**Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 17:51	1
Beryllium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 17:51	1
Cadmium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 17:51	1
Calcium, Dissolved	58		2.0	mg/L		04/28/13 10:54	04/29/13 17:51	1
Chromium, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:51	1
Copper, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:51	1
Iron, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 17:51	1
Magnesium, Dissolved	32		2.0	mg/L		04/28/13 10:54	04/29/13 17:51	1
Manganese, Dissolved	ND		0.010	mg/L		04/28/13 10:54	05/16/13 18:09	1
Nickel, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:51	1
Potassium, Dissolved	3.5		2.0	mg/L		04/28/13 10:54	04/29/13 17:51	1
Sodium, Dissolved	420		2.0	mg/L		04/28/13 10:54	04/29/13 17:51	1
Zinc, Dissolved	ND		0.050	mg/L		04/28/13 10:54	04/29/13 17:51	1
Tin, Dissolved	ND		0.20	mg/L		04/28/13 10:54	04/29/13 17:51	1

**Method: 200.8 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:39	1
Arsenic, Dissolved	0.0045		0.0030	mg/L		04/30/13 17:22	05/02/13 12:39	1
Lead, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:39	1
Selenium, Dissolved	0.0027		0.0020	mg/L		04/30/13 17:22	05/02/13 12:39	1
Silver, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:39	1
Thallium, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:39	1

**Method: 245.1 - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		05/02/13 08:32	05/02/13 22:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	0.87		0.20	NTU			04/23/13 18:10	1
Alkalinity as CaCO3	400		6.0	mg/L			04/25/13 23:10	1
Bicarbonate Alkalinity as CaCO3	400		6.0	mg/L			04/25/13 23:10	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 23:10	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			04/25/13 23:10	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 23:10	1
Total Dissolved Solids	1400		20	mg/L			04/26/13 10:40	1
Cyanide, Total	ND		0.050	mg/L		04/26/13 13:00	04/26/13 18:30	1
Total Phosphorus	ND		0.10	mg/L		05/08/13 15:35	05/09/13 14:57	1

TestAmerica Phoenix

# Client Sample Results

Client: Cardno ATC  
 Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: MW-10**

**Lab Sample ID: 550-1303-2**

Date Collected: 04/23/13 11:00

Matrix: Water

Date Received: 04/23/13 14:30

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	11		0.20	mg/L			04/24/13 21:44	1
Nitrite as N	ND		0.20	mg/L			04/24/13 21:44	1
Nitrate Nitrite as N	11		0.40	mg/L			04/24/13 21:44	1
Fluoride	1.4		0.40	mg/L			04/24/13 21:44	1
Chloride	450		20	mg/L			04/25/13 01:56	10
Sulfate	180		2.0	mg/L			04/24/13 21:44	1

**Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 17:54	1
Beryllium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 17:54	1
Cadmium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 17:54	1
Calcium, Dissolved	56		2.0	mg/L		04/28/13 10:54	04/29/13 17:54	1
Chromium, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:54	1
Copper, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:54	1
Iron, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 17:54	1
Magnesium, Dissolved	30		2.0	mg/L		04/28/13 10:54	04/29/13 17:54	1
Manganese, Dissolved	ND		0.010	mg/L		04/28/13 10:54	05/16/13 18:12	1
Nickel, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:54	1
Potassium, Dissolved	3.5		2.0	mg/L		04/28/13 10:54	04/29/13 17:54	1
Sodium, Dissolved	410		2.0	mg/L		04/28/13 10:54	04/29/13 17:54	1
Zinc, Dissolved	ND		0.050	mg/L		04/28/13 10:54	04/29/13 17:54	1
Tin, Dissolved	ND		0.20	mg/L		04/28/13 10:54	04/29/13 17:54	1

**Method: 200.8 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:41	1
Arsenic, Dissolved	0.0036		0.0030	mg/L		04/30/13 17:22	05/02/13 12:41	1
Lead, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:41	1
Selenium, Dissolved	0.0022		0.0020	mg/L		04/30/13 17:22	05/02/13 12:41	1
Silver, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:41	1
Thallium, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:41	1

**Method: 245.1 - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		05/02/13 08:32	05/02/13 22:29	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.20	NTU			04/23/13 18:10	1
Alkalinity as CaCO3	380		6.0	mg/L			04/25/13 23:43	1
Bicarbonate Alkalinity as CaCO3	380		6.0	mg/L			04/25/13 23:43	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 23:43	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			04/25/13 23:43	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 23:43	1
Total Dissolved Solids	1400		20	mg/L			04/26/13 10:40	1
Cyanide, Total	ND		0.050	mg/L		04/26/13 13:00	04/26/13 18:30	1
Total Phosphorus	ND		0.10	mg/L		05/08/13 15:35	05/09/13 14:57	1

## Client Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: MW-11**

**Lab Sample ID: 550-1303-3**

Date Collected: 04/23/13 09:15

Matrix: Water

Date Received: 04/23/13 14:30

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	11		0.20	mg/L			04/24/13 22:12	1
Nitrite as N	ND		0.20	mg/L			04/24/13 22:12	1
Nitrate Nitrite as N	11		0.40	mg/L			04/24/13 22:12	1
Fluoride	1.5		0.40	mg/L			04/24/13 22:12	1
Chloride	450		20	mg/L			04/25/13 02:24	10
Sulfate	190		2.0	mg/L			04/24/13 22:12	1

### Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 17:57	1
Beryllium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 17:57	1
Cadmium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 17:57	1
Calcium, Dissolved	59		2.0	mg/L		04/28/13 10:54	04/29/13 17:57	1
Chromium, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:57	1
Copper, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:57	1
Iron, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 17:57	1
Magnesium, Dissolved	32		2.0	mg/L		04/28/13 10:54	04/29/13 17:57	1
Manganese, Dissolved	ND		0.010	mg/L		04/28/13 10:54	05/16/13 18:15	1
Nickel, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 17:57	1
Potassium, Dissolved	3.7		2.0	mg/L		04/28/13 10:54	04/29/13 17:57	1
Sodium, Dissolved	430		2.0	mg/L		04/28/13 10:54	04/29/13 17:57	1
Zinc, Dissolved	ND		0.050	mg/L		04/28/13 10:54	04/29/13 17:57	1
Tin, Dissolved	ND		0.20	mg/L		04/28/13 10:54	04/29/13 17:57	1

### Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:43	1
Arsenic, Dissolved	0.0054		0.0030	mg/L		04/30/13 17:22	05/02/13 12:43	1
Lead, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:43	1
Selenium, Dissolved	0.0025		0.0020	mg/L		04/30/13 17:22	05/02/13 12:43	1
Silver, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:43	1
Thallium, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:43	1

### Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		05/02/13 08:32	05/02/13 22:34	1

### General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	0.33		0.20	NTU			04/23/13 18:10	1
Alkalinity as CaCO3	390		6.0	mg/L			04/26/13 00:08	1
Bicarbonate Alkalinity as CaCO3	390		6.0	mg/L			04/26/13 00:08	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:08	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			04/26/13 00:08	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:08	1
Total Dissolved Solids	1400		20	mg/L			04/26/13 10:40	1
Cyanide, Total	ND		0.050	mg/L		04/26/13 15:50	04/26/13 18:30	1
Total Phosphorus	ND		0.10	mg/L		05/08/13 15:35	05/09/13 14:57	1

TestAmerica Phoenix

## Client Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: Equip**

**Lab Sample ID: 550-1303-4**

Date Collected: 04/23/13 08:20

Matrix: Water

Date Received: 04/23/13 14:30

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	mg/L			04/23/13 20:35	1
Nitrite as N	ND		0.20	mg/L			04/23/13 20:35	1
Nitrate Nitrite as N	ND		0.40	mg/L			04/23/13 20:35	1
Fluoride	ND		0.40	mg/L			04/23/13 20:35	1
Chloride	ND		2.0	mg/L			04/23/13 20:35	1
Sulfate	ND		2.0	mg/L			04/23/13 20:35	1

**Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 18:00	1
Beryllium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 18:00	1
Cadmium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 18:00	1
Calcium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 18:00	1
Chromium, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 18:00	1
Copper, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 18:00	1
Iron, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 18:00	1
Magnesium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 18:00	1
Manganese, Dissolved	ND		0.010	mg/L		04/28/13 10:54	05/16/13 18:22	1
Nickel, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 18:00	1
Potassium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 18:00	1
Sodium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 18:00	1
Zinc, Dissolved	ND		0.050	mg/L		04/28/13 10:54	04/29/13 18:00	1
Tin, Dissolved	ND		0.20	mg/L		04/28/13 10:54	04/29/13 18:00	1

**Method: 200.8 - Metals (ICP/MS) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:45	1
Arsenic, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:45	1
Lead, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:45	1
Selenium, Dissolved	ND		0.0020	mg/L		04/30/13 17:22	05/02/13 12:45	1
Silver, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:45	1
Thallium, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:45	1

**Method: 245.1 - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		05/02/13 08:32	05/02/13 22:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		0.20	NTU			04/23/13 18:10	1
Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:15	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:15	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:15	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			04/26/13 00:15	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:15	1
Total Dissolved Solids	ND		20	mg/L			04/26/13 10:40	1
Cyanide, Total	ND		0.050	mg/L		04/26/13 15:50	04/26/13 18:30	1
Total Phosphorus	ND		0.10	mg/L		05/08/13 15:35	05/09/13 14:57	1

TestAmerica Phoenix

# Client Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: Dup**

**Lab Sample ID: 550-1303-5**

Date Collected: 04/23/13 08:20

Matrix: Water

Date Received: 04/23/13 14:30

### Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	11		0.20	mg/L			04/24/13 22:40	1
Nitrite as N	ND		0.20	mg/L			04/24/13 22:40	1
Nitrate Nitrite as N	11		0.40	mg/L			04/24/13 22:40	1
Fluoride	1.5		0.40	mg/L			04/24/13 22:40	1
Chloride	450		20	mg/L			04/25/13 02:52	10
Sulfate	180		2.0	mg/L			04/24/13 22:40	1

### Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Barium, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 18:03	1
Beryllium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 18:03	1
Cadmium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 18:03	1
Calcium, Dissolved	56		2.0	mg/L		04/28/13 10:54	04/29/13 18:03	1
Chromium, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 18:03	1
Copper, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 18:03	1
Iron, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 18:03	1
Magnesium, Dissolved	31		2.0	mg/L		04/28/13 10:54	04/29/13 18:03	1
Manganese, Dissolved	ND		0.010	mg/L		04/28/13 10:54	05/16/13 18:25	1
Nickel, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 18:03	1
Potassium, Dissolved	3.6		2.0	mg/L		04/28/13 10:54	04/29/13 18:03	1
Sodium, Dissolved	410		2.0	mg/L		04/28/13 10:54	04/29/13 18:03	1
Zinc, Dissolved	ND		0.050	mg/L		04/28/13 10:54	04/29/13 18:03	1
Tin, Dissolved	ND		0.20	mg/L		04/28/13 10:54	04/29/13 18:03	1

### Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:47	1
Arsenic, Dissolved	0.0052		0.0030	mg/L		04/30/13 17:22	05/02/13 12:47	1
Lead, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:47	1
Selenium, Dissolved	0.0025		0.0020	mg/L		04/30/13 17:22	05/02/13 12:47	1
Silver, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:47	1
Thallium, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:47	1

### Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	mg/L		05/02/13 08:32	05/02/13 22:37	1

### General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	0.28		0.20	NTU			04/23/13 18:10	1
Alkalinity as CaCO3	390		6.0	mg/L			04/26/13 00:28	1
Bicarbonate Alkalinity as CaCO3	390		6.0	mg/L			04/26/13 00:28	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:28	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			04/26/13 00:28	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			04/26/13 00:28	1
Total Dissolved Solids	1400		20	mg/L			04/26/13 10:40	1
Cyanide, Total	ND		0.050	mg/L		04/26/13 15:50	04/26/13 18:30	1
Total Phosphorus	ND		0.10	mg/L		05/08/13 15:35	05/09/13 14:57	1

TestAmerica Phoenix

# QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-3128/1000  
Matrix: Water  
Analysis Batch: 3128

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	mg/L			04/24/13 14:01	1
Nitrite as N	ND		0.20	mg/L			04/24/13 14:01	1
Nitrate Nitrite as N	ND		0.40	mg/L			04/24/13 14:01	1
Fluoride	ND		0.40	mg/L			04/24/13 14:01	1
Chloride	ND		2.0	mg/L			04/24/13 14:01	1
Sulfate	ND		2.0	mg/L			04/24/13 14:01	1

Lab Sample ID: LCS 550-3128/5  
Matrix: Water  
Analysis Batch: 3128

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	3.98		mg/L		100	90 - 110
Nitrite as N	4.00	4.16		mg/L		104	90 - 110
Nitrate Nitrite as N	8.00	8.14		mg/L		102	90 - 110
Fluoride	4.00	4.10		mg/L		102	90 - 110
Chloride	20.0	20.1		mg/L		100	90 - 110
Sulfate	20.0	19.8		mg/L		99	90 - 110

Lab Sample ID: LCSD 550-3128/6  
Matrix: Water  
Analysis Batch: 3128

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
Nitrate as N	4.00	3.98		mg/L		99	90 - 110	0	20
Nitrite as N	4.00	4.16		mg/L		104	90 - 110	0	20
Nitrate Nitrite as N	8.00	8.14		mg/L		102	90 - 110	0	20
Fluoride	4.00	4.10		mg/L		103	90 - 110	0	20
Chloride	20.0	20.0		mg/L		100	90 - 110	0	20
Sulfate	20.0	19.8		mg/L		99	90 - 110	0	20

Lab Sample ID: 550-1252-B-2 MS  
Matrix: Water  
Analysis Batch: 3128

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
Nitrate as N	15		4.00	18.3		mg/L		94	80 - 120
Nitrite as N	ND	M2	20.0	4.28	M2	mg/L		21	80 - 120
Nitrate Nitrite as N	15	M2	24.0	22.6	M2	mg/L		32	80 - 120
Fluoride	ND		4.00	4.48		mg/L		107	80 - 120
Chloride	160	E2 M3	20.0	166	E2 M3	mg/L		53	80 - 120
Sulfate	440	E2 M3	20.0	441	E2 M3	mg/L		4	80 - 120

Lab Sample ID: 550-1252-B-2 MSD  
Matrix: Water  
Analysis Batch: 3128

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
Nitrate as N	15		4.00	18.3		mg/L		93	80 - 120	0	20

TestAmerica Phoenix

# QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-1252-B-2 MSD  
Matrix: Water  
Analysis Batch: 3128

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

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Nitrite as N	ND	M2	20.0	4.26	M2	mg/L		21	80 - 120	0		20
Nitrate Nitrite as N	15	M2	24.0	22.6	M2	mg/L		32	80 - 120	0		20
Fluoride	ND		4.00	4.45		mg/L		106	80 - 120	1		20
Chloride	160	E2 M3	20.0	166	E2 M3	mg/L		52	80 - 120	0		20
Sulfate	440	E2 M3	20.0	441	E2 M3	mg/L		0.9	80 - 120	0		20

Lab Sample ID: MB 550-3130/1000  
Matrix: Water  
Analysis Batch: 3130

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Nitrate as N	ND		0.20	mg/L			04/23/13 17:44	1
Nitrite as N	ND		0.20	mg/L			04/23/13 17:44	1
Nitrate Nitrite as N	ND		0.40	mg/L			04/23/13 17:44	1
Fluoride	ND		0.40	mg/L			04/23/13 17:44	1
Chloride	ND		2.0	mg/L			04/23/13 17:44	1
Sulfate	ND		2.0	mg/L			04/23/13 17:44	1

Lab Sample ID: LCS 550-3130/5  
Matrix: Water  
Analysis Batch: 3130

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
		Added	Result							
Nitrate as N	4.00	4.12		mg/L		103	90 - 110			
Nitrite as N	4.00	4.05		mg/L		101	90 - 110			
Nitrate Nitrite as N	8.00	8.17		mg/L		102	90 - 110			
Fluoride	4.00	3.98		mg/L		100	90 - 110			
Chloride	20.0	20.3		mg/L		101	90 - 110			
Sulfate	20.0	20.2		mg/L		101	90 - 110			

Lab Sample ID: LCSD 550-3130/6  
Matrix: Water  
Analysis Batch: 3130

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
		Added	Result							
Nitrate as N	4.00	4.12		mg/L		103	90 - 110	0		20
Nitrite as N	4.00	4.06		mg/L		102	90 - 110	0		20
Nitrate Nitrite as N	8.00	8.18		mg/L		102	90 - 110	0		20
Fluoride	4.00	3.98		mg/L		100	90 - 110	0		20
Chloride	20.0	20.3		mg/L		101	90 - 110	0		20
Sulfate	20.0	20.2		mg/L		101	90 - 110	0		20

Lab Sample ID: 550-1248-A-1 MS  
Matrix: Water  
Analysis Batch: 3130

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

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Nitrate as N	5.9		4.00	10.3		mg/L		109	80 - 120			
Nitrite as N	ND	M2	20.0	4.00	M2	mg/L		20	80 - 120			

TestAmerica Phoenix

## QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-1248-A-1 MS

Matrix: Water

Analysis Batch: 3130

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Nitrate Nitrite as N	5.9	M2	24.0	14.3	M2	mg/L		35		80 - 120
Fluoride	0.61		4.00	4.78		mg/L		104		80 - 120
Chloride	100	E2 M3	20.0	119	E2 M3	mg/L		71		80 - 120
Sulfate	130	E2 M3	20.0	147	E2 M3	mg/L		62		80 - 120

Lab Sample ID: 550-1248-A-1 MSD

Matrix: Water

Analysis Batch: 3130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier								
Nitrate as N	5.9		4.00	10.3		mg/L		109		80 - 120	0	20	
Nitrite as N	ND	M2	20.0	4.01	M2	mg/L		20		80 - 120	0	20	
Nitrate Nitrite as N	5.9	M2	24.0	14.3	M2	mg/L		35		80 - 120	0	20	
Fluoride	0.61		4.00	4.79		mg/L		105		80 - 120	0	20	
Chloride	100	E2 M3	20.0	119	E2 M3	mg/L		70		80 - 120	0	20	
Sulfate	130	E2 M3	20.0	147	E2 M3	mg/L		63		80 - 120	0	20	

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

Lab Sample ID: MB 550-3447/1-A

Matrix: Water

Analysis Batch: 3665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3447

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Barium, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 16:41	1
Beryllium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 16:41	1
Cadmium, Dissolved	ND		0.0010	mg/L		04/28/13 10:54	04/29/13 16:41	1
Calcium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 16:41	1
Chromium, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 16:41	1
Copper, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 16:41	1
Iron, Dissolved	ND		0.10	mg/L		04/28/13 10:54	04/29/13 16:41	1
Magnesium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 16:41	1
Nickel, Dissolved	ND		0.010	mg/L		04/28/13 10:54	04/29/13 16:41	1
Potassium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 16:41	1
Sodium, Dissolved	ND		2.0	mg/L		04/28/13 10:54	04/29/13 16:41	1
Zinc, Dissolved	ND		0.050	mg/L		04/28/13 10:54	04/29/13 16:41	1
Tin, Dissolved	ND		0.20	mg/L		04/28/13 10:54	04/29/13 16:41	1

Lab Sample ID: MB 550-3447/1-A

Matrix: Water

Analysis Batch: 5093

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3447

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Manganese, Dissolved	ND		0.010	mg/L		04/28/13 10:54	05/16/13 17:50	1

TestAmerica Phoenix

## QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

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

Lab Sample ID: LCS 550-3447/2-A  
Matrix: Water  
Analysis Batch: 3665

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 3447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Barium, Dissolved	1.00	0.965		mg/L		96	85 - 115	
Beryllium, Dissolved	1.00	0.974		mg/L		97	85 - 115	
Cadmium, Dissolved	1.00	0.982		mg/L		98	85 - 115	
Calcium, Dissolved	21.0	20.8		mg/L		99	85 - 115	
Chromium, Dissolved	1.00	0.984		mg/L		98	85 - 115	
Copper, Dissolved	1.00	0.955		mg/L		95	85 - 115	
Iron, Dissolved	1.00	0.969		mg/L		97	85 - 115	
Magnesium, Dissolved	21.0	20.6		mg/L		98	85 - 115	
Nickel, Dissolved	1.00	0.972		mg/L		97	85 - 115	
Potassium, Dissolved	20.0	19.0		mg/L		95	85 - 115	
Sodium, Dissolved	20.0	19.8		mg/L		99	85 - 115	
Zinc, Dissolved	1.00	0.999		mg/L		100	85 - 115	
Tin, Dissolved	1.00	0.999		mg/L		100	85 - 115	

Lab Sample ID: LCSD 550-3447/3-A  
Matrix: Water  
Analysis Batch: 3665

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 3447

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
Barium, Dissolved	1.00	0.954		mg/L		95	85 - 115	1	20	
Beryllium, Dissolved	1.00	0.960		mg/L		96	85 - 115	1	20	
Cadmium, Dissolved	1.00	0.964		mg/L		96	85 - 115	2	20	
Calcium, Dissolved	21.0	20.7		mg/L		98	85 - 115	1	20	
Chromium, Dissolved	1.00	0.968		mg/L		97	85 - 115	2	20	
Copper, Dissolved	1.00	0.937		mg/L		94	85 - 115	2	20	
Iron, Dissolved	1.00	0.928		mg/L		93	85 - 115	4	20	
Magnesium, Dissolved	21.0	20.3		mg/L		97	85 - 115	1	20	
Nickel, Dissolved	1.00	0.960		mg/L		96	85 - 115	1	20	
Potassium, Dissolved	20.0	18.8		mg/L		94	85 - 115	1	20	
Sodium, Dissolved	20.0	19.2		mg/L		96	85 - 115	3	20	
Zinc, Dissolved	1.00	0.989		mg/L		99	85 - 115	1	20	
Tin, Dissolved	1.00	0.982		mg/L		98	85 - 115	2	20	

Lab Sample ID: LCSD 550-3447/3-A  
Matrix: Water  
Analysis Batch: 5093

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 3447

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
Manganese, Dissolved	1.00	0.929		mg/L		93	85 - 115	2	20	

Lab Sample ID: 550-976-A-2-B MS  
Matrix: Water  
Analysis Batch: 3665

Client Sample ID: Matrix Spike  
Prep Type: Dissolved  
Prep Batch: 3447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	
Barium, Dissolved	ND		1.00	1.01		mg/L		99	70 - 130	
Beryllium, Dissolved	ND		1.00	1.01		mg/L		101	70 - 130	
Cadmium, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130	
Calcium, Dissolved	44		21.0	67.5		mg/L		111	70 - 130	

TestAmerica Phoenix

## QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

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

**Lab Sample ID: 550-976-A-2-B MS**

**Matrix: Water**

**Analysis Batch: 3665**

**Client Sample ID: Matrix Spike**

**Prep Type: Dissolved**

**Prep Batch: 3447**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Chromium, Dissolved	ND		1.00	1.00		mg/L		100	70 - 130	
Copper, Dissolved	0.053		1.00	1.04		mg/L		99	70 - 130	
Iron, Dissolved	ND		1.00	0.994		mg/L		99	70 - 130	
Magnesium, Dissolved	15		21.0	37.3		mg/L		104	70 - 130	
Nickel, Dissolved	ND		1.00	0.993		mg/L		99	70 - 130	
Potassium, Dissolved	2.5		20.0	22.3		mg/L		99	70 - 130	
Sodium, Dissolved	19		20.0	40.6		mg/L		105	70 - 130	
Zinc, Dissolved	ND		1.00	1.03		mg/L		103	70 - 130	
Tin, Dissolved	ND		1.00	1.02		mg/L		102	70 - 130	

**Lab Sample ID: 550-976-A-2-B MS**

**Matrix: Water**

**Analysis Batch: 5093**

**Client Sample ID: Matrix Spike**

**Prep Type: Dissolved**

**Prep Batch: 3447**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Manganese, Dissolved	0.050		1.00	0.997		mg/L		95	70 - 130	

**Lab Sample ID: 550-976-A-2-C MSD**

**Matrix: Water**

**Analysis Batch: 3665**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Dissolved**

**Prep Batch: 3447**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Barium, Dissolved	ND		1.00	1.01		mg/L		99	70 - 130	0	20	
Beryllium, Dissolved	ND		1.00	0.990		mg/L		99	70 - 130	2	20	
Cadmium, Dissolved	ND		1.00	1.01		mg/L		101	70 - 130	0	20	
Calcium, Dissolved	44		21.0	66.1		mg/L		104	70 - 130	2	20	
Chromium, Dissolved	ND		1.00	1.00		mg/L		100	70 - 130	0	20	
Copper, Dissolved	0.053		1.00	1.04		mg/L		99	70 - 130	0	20	
Iron, Dissolved	ND		1.00	0.978		mg/L		98	70 - 130	2	20	
Magnesium, Dissolved	15		21.0	36.6		mg/L		100	70 - 130	2	20	
Nickel, Dissolved	ND		1.00	0.993		mg/L		99	70 - 130	0	20	
Potassium, Dissolved	2.5		20.0	22.0		mg/L		97	70 - 130	2	20	
Sodium, Dissolved	19		20.0	40.0		mg/L		103	70 - 130	1	20	
Zinc, Dissolved	ND		1.00	1.03		mg/L		103	70 - 130	0	20	
Tin, Dissolved	ND		1.00	1.00		mg/L		100	70 - 130	2	20	

**Lab Sample ID: 550-976-A-2-C MSD**

**Matrix: Water**

**Analysis Batch: 5093**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Dissolved**

**Prep Batch: 3447**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Manganese, Dissolved	0.050		1.00	0.985		mg/L		94	70 - 130	1	20	

# QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

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

**Lab Sample ID: MB 550-3626/1-A**  
**Matrix: Water**  
**Analysis Batch: 3914**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 3626**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:05	1
Arsenic, Dissolved	ND		0.0030	mg/L		04/30/13 17:22	05/02/13 12:05	1
Lead, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:05	1
Selenium, Dissolved	ND		0.0020	mg/L		04/30/13 17:22	05/02/13 12:05	1
Silver, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:05	1
Thallium, Dissolved	ND		0.0010	mg/L		04/30/13 17:22	05/02/13 12:05	1

**Lab Sample ID: LCS 550-3626/2-A**  
**Matrix: Water**  
**Analysis Batch: 3914**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 3626**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony, Dissolved	0.100	0.104		mg/L		104	85 - 115
Arsenic, Dissolved	0.100	0.0976		mg/L		98	85 - 115
Lead, Dissolved	0.100	0.103		mg/L		103	85 - 115
Selenium, Dissolved	0.100	0.103		mg/L		103	85 - 115
Silver, Dissolved	0.100	0.104		mg/L		104	85 - 115
Thallium, Dissolved	0.100	0.102		mg/L		102	85 - 115

**Lab Sample ID: LCSD 550-3626/3-A**  
**Matrix: Water**  
**Analysis Batch: 3914**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 3626**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony, Dissolved	0.100	0.103		mg/L		103	85 - 115	1	20
Arsenic, Dissolved	0.100	0.0968		mg/L		97	85 - 115	1	20
Lead, Dissolved	0.100	0.102		mg/L		102	85 - 115	1	20
Selenium, Dissolved	0.100	0.102		mg/L		102	85 - 115	1	20
Silver, Dissolved	0.100	0.101		mg/L		101	85 - 115	3	20
Thallium, Dissolved	0.100	0.101		mg/L		101	85 - 115	1	20

**Lab Sample ID: 550-976-A-15-D MS**  
**Matrix: Water**  
**Analysis Batch: 3914**

**Client Sample ID: Matrix Spike**  
**Prep Type: Dissolved**  
**Prep Batch: 3626**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony, Dissolved	ND		0.100	0.102		mg/L		102	70 - 130
Arsenic, Dissolved	ND		0.100	0.0998		mg/L		97	70 - 130
Lead, Dissolved	ND		0.100	0.0984		mg/L		98	70 - 130
Selenium, Dissolved	ND		0.100	0.102		mg/L		102	70 - 130
Silver, Dissolved	ND		0.100	0.0968		mg/L		97	70 - 130
Thallium, Dissolved	ND		0.100	0.0987		mg/L		99	70 - 130

**Lab Sample ID: 550-976-A-15-E MSD**  
**Matrix: Water**  
**Analysis Batch: 3914**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Dissolved**  
**Prep Batch: 3626**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Antimony, Dissolved	ND		0.100	0.102		mg/L		102	70 - 130	0	20

TestAmerica Phoenix

## QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

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

Lab Sample ID: 550-976-A-15-E MSD  
Matrix: Water  
Analysis Batch: 3914

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Dissolved  
Prep Batch: 3626

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Arsenic, Dissolved	ND		0.100	0.100		mg/L		98	70 - 130	0	20
Lead, Dissolved	ND		0.100	0.0979		mg/L		98	70 - 130	1	20
Selenium, Dissolved	ND		0.100	0.100		mg/L		100	70 - 130	1	20
Silver, Dissolved	ND		0.100	0.0977		mg/L		98	70 - 130	1	20
Thallium, Dissolved	ND		0.100	0.0988		mg/L		99	70 - 130	0	20

### Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 550-3116/3  
Matrix: Water  
Analysis Batch: 3116

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Turbidity	ND		0.20	NTU			04/23/13 18:10	1

Lab Sample ID: LCS 550-3116/4  
Matrix: Water  
Analysis Batch: 3116

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				Limits
Turbidity	20.0	19.0		NTU		95	90 - 110

Lab Sample ID: LCSD 550-3116/5  
Matrix: Water  
Analysis Batch: 3116

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Turbidity	20.0	19.2		NTU		96	90 - 110	1	20

Lab Sample ID: 550-1221-B-1 DU  
Matrix: Water  
Analysis Batch: 3116

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Turbidity	2.5		2.36		NTU		5	20

### Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-3376/35  
Matrix: Water  
Analysis Batch: 3376

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

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 21:08	1
Bicarbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 21:08	1
Carbonate Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 21:08	1
Alkalinity, Phenolphthalein	ND		6.0	mg/L			04/25/13 21:08	1
Hydroxide Alkalinity as CaCO3	ND		6.0	mg/L			04/25/13 21:08	1

TestAmerica Phoenix

## QC Sample Results

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

### Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 550-3376/34  
Matrix: Water  
Analysis Batch: 3376

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	244		mg/L		98	90 - 110

Lab Sample ID: LCSD 550-3376/48  
Matrix: Water  
Analysis Batch: 3376

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
Alkalinity as CaCO3	250	250		mg/L		100	90 - 110	2	20

Lab Sample ID: 550-1115-K-1 DU  
Matrix: Water  
Analysis Batch: 3376

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	130		129		mg/L		0.7	20
Bicarbonate Alkalinity as CaCO3	130		129		mg/L		0.7	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Alkalinity, Phenolphthalein	ND		ND		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Lab Sample ID: 550-1303-2 DU  
Matrix: Water  
Analysis Batch: 3376

Client Sample ID: MW-10  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	380		385		mg/L		0.5	20
Bicarbonate Alkalinity as CaCO3	380		385		mg/L		0.5	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Alkalinity, Phenolphthalein	ND		ND		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND		ND		mg/L		NC	20

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

Lab Sample ID: MB 550-3367/1  
Matrix: Water  
Analysis Batch: 3367

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		20	mg/L			04/26/13 10:40	1

Lab Sample ID: LCS 550-3367/2  
Matrix: Water  
Analysis Batch: 3367

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1000		mg/L		100	80 - 115

TestAmerica Phoenix

# QC Sample Results

Client: Cardno ATC  
 Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

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

Lab Sample ID: LCSD 550-3367/3  
 Matrix: Water  
 Analysis Batch: 3367

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
Total Dissolved Solids	1000	992		mg/L		99	80 - 115	1	10

Lab Sample ID: 550-1243-G-1 DU  
 Matrix: Water  
 Analysis Batch: 3367

Client Sample ID: Duplicate  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	9900	D2	9670	D2	mg/L		2	10

## Method: SM 4500 CN E - Cyanide, Total

Lab Sample ID: MB 550-3393/1-A  
 Matrix: Water  
 Analysis Batch: 3480

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 3393

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.050	mg/L		04/26/13 13:00	04/26/13 18:30	1

Lab Sample ID: LCS 550-3393/2-A  
 Matrix: Water  
 Analysis Batch: 3480

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 3393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.106		mg/L		106	90 - 110

Lab Sample ID: LCSD 550-3393/16-A  
 Matrix: Water  
 Analysis Batch: 3480

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 3393

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.100	0.101		mg/L		101	90 - 110	5	20

Lab Sample ID: 550-1252-D-3-B MS  
 Matrix: Water  
 Analysis Batch: 3480

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 3393

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.109		mg/L		109	80 - 120

Lab Sample ID: 550-1252-D-3-C MSD  
 Matrix: Water  
 Analysis Batch: 3480

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 3393

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.112		mg/L		112	80 - 120	3	20

## QC Sample Results

Client: Cardno ATC  
 Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

### Method: SM 4500 P E - Phosphorus

Lab Sample ID: MB 550-4287/1-B  
 Matrix: Water  
 Analysis Batch: 4438

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 4294

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Phosphorus	ND		5.0	mg/L		05/08/13 15:35	05/09/13 14:57	1

Lab Sample ID: LCS 550-4287/2-B  
 Matrix: Water  
 Analysis Batch: 4438

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 4294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Total Phosphorus	15.0	15.3		mg/L		102	90 - 110	

Lab Sample ID: LCSD 550-4287/3-B  
 Matrix: Water  
 Analysis Batch: 4438

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 4294

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD
							Limits	RPD	Limit
Total Phosphorus	15.0	15.0		mg/L		100	90 - 110	2	20

Lab Sample ID: 550-1303-1 MS  
 Matrix: Water  
 Analysis Batch: 4438

Client Sample ID: MW-9  
 Prep Type: Total/NA  
 Prep Batch: 4294

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	
									Limits	
Total Phosphorus	ND		0.300	0.333		mg/L		105	80 - 120	

Lab Sample ID: 550-1303-1 MSD  
 Matrix: Water  
 Analysis Batch: 4438

Client Sample ID: MW-9  
 Prep Type: Total/NA  
 Prep Batch: 4294

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.		RPD
									Limits	RPD	Limit
Total Phosphorus	ND		0.300	0.327		mg/L		103	80 - 120	2	20

## Lab Chronicle

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: MW-9**

**Lab Sample ID: 550-1303-1**

Date Collected: 04/23/13 12:35

Matrix: Water

Date Received: 04/23/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	3128	04/24/13 21:16	KLH	TAL PHX
Total/NA	Analysis	300.0		10	3128	04/25/13 01:28	KLH	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	3665	04/29/13 17:51	HK	TAL PHX
Dissolved	Prep	200.8			3626	04/30/13 17:22	JRC	TAL PHX
Dissolved	Analysis	200.8		1	3914	05/02/13 12:39	TK	TAL PHX
Dissolved	Prep	245.1			3796	05/02/13 08:32	AJC	TAL PHX
Dissolved	Analysis	245.1		1	3930	05/02/13 22:27	AJC	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	5093	05/16/13 18:09	BB	TAL PHX
Total/NA	Analysis	180.1		1	3116	04/23/13 18:10	TS	TAL PHX
Total/NA	Analysis	SM 2540C		1	3367		JE	TAL PHX
					(Start)	04/26/13 10:40		
					(End)	04/29/13 10:35		
Total/NA	Analysis	SM 2320B		1	3376	04/25/13 23:10	DS	TAL PHX
Total/NA	Prep	SM 4500 CN C			3393	04/26/13 13:00	TS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	3480	04/26/13 18:30	TS	TAL PHX
Total/NA	Prep	SM 4500 P B			4294	05/08/13 15:35	DS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	4438	05/09/13 14:57	DS	TAL PHX

**Client Sample ID: MW-10**

**Lab Sample ID: 550-1303-2**

Date Collected: 04/23/13 11:00

Matrix: Water

Date Received: 04/23/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	3128	04/24/13 21:44	KLH	TAL PHX
Total/NA	Analysis	300.0		10	3128	04/25/13 01:56	KLH	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	3665	04/29/13 17:54	HK	TAL PHX
Dissolved	Prep	200.8			3626	04/30/13 17:22	JRC	TAL PHX
Dissolved	Analysis	200.8		1	3914	05/02/13 12:41	TK	TAL PHX
Dissolved	Prep	245.1			3796	05/02/13 08:32	AJC	TAL PHX
Dissolved	Analysis	245.1		1	3930	05/02/13 22:29	AJC	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	5093	05/16/13 18:12	BB	TAL PHX
Total/NA	Analysis	180.1		1	3116	04/23/13 18:10	TS	TAL PHX
Total/NA	Analysis	SM 2540C		1	3367		JE	TAL PHX
					(Start)	04/26/13 10:40		
					(End)	04/29/13 10:35		
Total/NA	Analysis	SM 2320B		1	3376	04/25/13 23:43	DS	TAL PHX
Total/NA	Prep	SM 4500 CN C			3393	04/26/13 13:00	TS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	3480	04/26/13 18:30	TS	TAL PHX
Total/NA	Prep	SM 4500 P B			4294	05/08/13 15:35	DS	TAL PHX

TestAmerica Phoenix

# Lab Chronicle

Client: Cardno ATC  
 Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: MW-10**

**Lab Sample ID: 550-1303-2**

Date Collected: 04/23/13 11:00

Matrix: Water

Date Received: 04/23/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 P E		1	4438	05/09/13 14:57	DS	TAL PHX

**Client Sample ID: MW-11**

**Lab Sample ID: 550-1303-3**

Date Collected: 04/23/13 09:15

Matrix: Water

Date Received: 04/23/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	3128	04/24/13 22:12	KLH	TAL PHX
Total/NA	Analysis	300.0		10	3128	04/25/13 02:24	KLH	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	3665	04/29/13 17:57	HK	TAL PHX
Dissolved	Prep	200.8			3626	04/30/13 17:22	JRC	TAL PHX
Dissolved	Analysis	200.8		1	3914	05/02/13 12:43	TK	TAL PHX
Dissolved	Prep	245.1			3796	05/02/13 08:32	AJC	TAL PHX
Dissolved	Analysis	245.1		1	3930	05/02/13 22:34	AJC	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	5093	05/16/13 18:15	BB	TAL PHX
Total/NA	Analysis	180.1		1	3116	04/23/13 18:10	TS	TAL PHX
Total/NA	Analysis	SM 2540C		1	3367		JE	TAL PHX
					(Start)	04/26/13 10:40		
					(End)	04/29/13 10:35		
Total/NA	Analysis	SM 2320B		1	3376	04/26/13 00:08	DS	TAL PHX
Total/NA	Prep	SM 4500 CN C			3393	04/26/13 15:50	TS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	3480	04/26/13 18:30	TS	TAL PHX
Total/NA	Prep	SM 4500 P B			4294	05/08/13 15:35	DS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	4438	05/09/13 14:57	DS	TAL PHX

**Client Sample ID: Equip**

**Lab Sample ID: 550-1303-4**

Date Collected: 04/23/13 08:20

Matrix: Water

Date Received: 04/23/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	3130	04/23/13 20:35	KLH	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	3665	04/29/13 18:00	HK	TAL PHX
Dissolved	Prep	200.8			3626	04/30/13 17:22	JRC	TAL PHX
Dissolved	Analysis	200.8		1	3914	05/02/13 12:45	TK	TAL PHX
Dissolved	Prep	245.1			3796	05/02/13 08:32	AJC	TAL PHX
Dissolved	Analysis	245.1		1	3930	05/02/13 22:35	AJC	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	5093	05/16/13 18:22	BB	TAL PHX
Total/NA	Analysis	180.1		1	3116	04/23/13 18:10	TS	TAL PHX

# Lab Chronicle

Client: Cardno ATC  
 Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

**Client Sample ID: Equip**

**Lab Sample ID: 550-1303-4**

Date Collected: 04/23/13 08:20

Matrix: Water

Date Received: 04/23/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	3367		JE	TAL PHX
					(Start)	04/26/13 10:40		
					(End)	04/29/13 10:35		
Total/NA	Analysis	SM 2320B		1	3376	04/26/13 00:15	DS	TAL PHX
Total/NA	Prep	SM 4500 CN C			3393	04/26/13 15:50	TS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	3480	04/26/13 18:30	TS	TAL PHX
Total/NA	Prep	SM 4500 P B			4294	05/08/13 15:35	DS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	4438	05/09/13 14:57	DS	TAL PHX

**Client Sample ID: Dup**

**Lab Sample ID: 550-1303-5**

Date Collected: 04/23/13 08:20

Matrix: Water

Date Received: 04/23/13 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	3128	04/24/13 22:40	KLH	TAL PHX
Total/NA	Analysis	300.0		10	3128	04/25/13 02:52	KLH	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	3665	04/29/13 18:03	HK	TAL PHX
Dissolved	Prep	200.8			3626	04/30/13 17:22	JRC	TAL PHX
Dissolved	Analysis	200.8		1	3914	05/02/13 12:47	TK	TAL PHX
Dissolved	Prep	245.1			3796	05/02/13 08:32	AJC	TAL PHX
Dissolved	Analysis	245.1		1	3930	05/02/13 22:37	AJC	TAL PHX
Dissolved	Prep	200.7			3447	04/28/13 10:54	JRC	TAL PHX
Dissolved	Analysis	200.7 Rev 4.4		1	5093	05/16/13 18:25	BB	TAL PHX
Total/NA	Analysis	180.1		1	3116	04/23/13 18:10	TS	TAL PHX
Total/NA	Analysis	SM 2540C		1	3367		JE	TAL PHX
					(Start)	04/26/13 10:40		
					(End)	04/29/13 10:35		
Total/NA	Analysis	SM 2320B		1	3376	04/26/13 00:28	DS	TAL PHX
Total/NA	Prep	SM 4500 CN C			3393	04/26/13 15:50	TS	TAL PHX
Total/NA	Analysis	SM 4500 CN E		1	3480	04/26/13 18:30	TS	TAL PHX
Total/NA	Prep	SM 4500 P B			4294	05/08/13 15:35	DS	TAL PHX
Total/NA	Analysis	SM 4500 P E		1	4438	05/09/13 14:57	DS	TAL PHX

**Laboratory References:**

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

# Certification Summary

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

## Laboratory: TestAmerica Phoenix

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

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA	IHLAP		154268	07-01-13
Arizona	State Program	9	AZ0728	06-09-14
California	NELAP	9	01109CA	11-30-13
Nevada	State Program	9	AZ01030	07-31-13
New York	NELAP	2	11898	04-01-14
Oregon	NELAP	10	AZ100001	03-09-14
USDA	Federal		P330-09-00024	06-09-15

## Method Summary

Client: Cardno ATC  
Project/Site: World Resources Company

TestAmerica Job ID: 550-1303-1

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	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
180.1	Turbidity, Nephelometric	MCAWW	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 CN E	Cyanide, Total	SM	TAL PHX
SM 4500 P E	Phosphorus	SM	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.

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

### Laboratory References:

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

THE LEADER IN ENVIRONMENTAL TESTING  
TAL-0013-550 (10/10)

Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 437-3341  
 Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3802  
 Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264



550-1303 Chain of Custody

Client Name/Address: ARND PT. 25 S. FRANKLIN ST. #11 TUCSON AZ 85705			Project/PO Number: DORIS RIVERA RIVERO DORIS RIVERO				Analysis F																																																	
Project Manager: D. J. GARDNER			Phone Number: 520-305-1430				<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>										1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																				
1	2	3	4	5	6	7											8	9	10	11	12	13	14	15	16	17	18	19	20																											
Sampler: LEVIN MILLER			Fax Number: 520-305-1014																																																					
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Special Instructions																													
10.1	10	10	2	4/13	11:30																																																			
10.2	10	10	1	4/13	11:30																																																			
10.3	10	10	1	4/13	11:30																																																			
10.4	10	10	1	4/13	11:30																																																			
10.5	10	10	1	4/13	11:30																																																			
10.6	10	10	1	4/13	11:30																																																			
10.7	10	10	1	4/13	11:30																																																			
10.8	10	10	1	4/13	11:30																																																			
10.9	10	10	1	4/13	11:30																																																			
10.10	10	10	1	4/13	11:30																																																			
10.11	10	10	1	4/13	11:30																																																			
10.12	10	10	1	4/13	11:30																																																			
10.13	10	10	1	4/13	11:30																																																			
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10.18	10	10	1	4/13	11:30																																																			
10.19	10	10	1	4/13	11:30																																																			
10.20	10	10	1	4/13	11:30																																																			
10.21	10	10	1	4/13	11:30																																																			
10.22	10	10	1	4/13	11:30																																																			
10.23	10	10	1	4/13	11:30																																																			
10.24	10	10	1	4/13	11:30																																																			
10.25	10	10	1	4/13	11:30																																																			
10.26	10	10	1	4/13	11:30																																																			
10.27	10	10	1	4/13	11:30																																																			
10.28	10	10	1	4/13	11:30																																																			
10.29	10	10	1	4/13	11:30																																																			
10.30	10	10	1	4/13	11:30																																																			
Relinquished By:	Date/Time:		Received By:				Date/Time:				Turnaround Time: (Check)																																													
LEVIN MILLER	4/13/13		DORIS RIVERO				4/13/13				same day _____ 72 hours _____																																													
Relinquished By:	Date/Time:		Received By:				Date/Time:				24 hours _____ 5 days _____																																													
											48 hours _____ normal <input checked="" type="checkbox"/>																																													
Relinquished By:	Date/Time:		Received in Lab By:				Date/Time:				Sample Integrity: (Check)																																													
			DORIS RIVERO				4/23/13 1430				intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>																																													

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

3.0°C

## Login Sample Receipt Checklist

Client: Cardno ATC

Job Number: 550-1303-1

Login Number: 1303

List Source: TestAmerica Phoenix

List Number: 1

Creator: Baker, Elizabeth

Question	Answer	Comment
Radioactivity wasn't checked or is $\neq$ 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.	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.