



6 Gellatly Drive  
 Wappingers Falls, NY 12590  
 (845) 223-9944

**LETTER OF TRANSMITTAL**

TO Mr. Brian Thiesse  
Head of US SHEQ Operations  
Linde North America, Inc.  
575 Mountain Avenue  
Murray Hill, New Jersey 07974

DATE: 10/31/09	JOB NO.: 150C265.1005
ATTENTION: Mr. Brian Thiesse	
RE: Bi-Annual 2009 Monitoring Event Letter	
Report, Site No. 932001, Airco Properties Inc.,	
Airco Parcel, Niagara Falls, New York	

**WE ARE SENDING YOU**     Attached     Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change order     \_\_\_\_\_

COPIES	DATE	DESCRIPTION
1	10/31/09	First Bi-Annual 2009 Monitoring Event Letter, Site No. 932001, Airco Properties Inc., Airco Parcel, Niagara Falls, New York

**THESE ARE TRANSMITTED** as checked below:

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**REMARKS** Greenstar is pleased to provide you with the above listed document. Should you have any questions or  
comments regarding this report, please do not hesitate to contact me at (845) 223-9944.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**COPY TO:** M. Hinton, NYSDEC (1 copy)  
M. Forcucci (NYSDOH) (1 copy)  
Town of Niagara Falls, Town Clerk (1 copy)

**SIGNED**   
 Charles E. McLeod, President



6 Gellatly Drive  
 Wappingers Falls, NY 12590  
 (845) 223-9944

**LETTER OF TRANSMITTAL**

TO Mr. Michael Hinton  
New York State Department of  
Environmental Conservation  
Region 9  
270 Michigan Avenue  
Buffalo, New York 14203

DATE: 10/31/09	JOB NO.: 150C265.1005
ATTENTION: Mr. Michael Hinton	
RE: Bi-Annual 2008 Monitoring Event Letter	
Report, Site No. 932001, Airco Properties Inc.,	
Airco Parcel, Niagara Falls, New York	

**WE ARE SENDING YOU**     Attached     Under separate cover via \_\_\_\_\_ the following items:  
 Shop drawings     Prints     Plans     Samples     Specifications  
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**COPY TO:** M. Resh, Linde (1 copy)  
M. Forcucci (NYSDOH) (1 copy)  
Town of Niagara Falls, Town Clerk (1 copy)

**SIGNED**   
 Charles E. McLeod, President

**Bi-Annual 2009 Monitoring Event  
Letter Report for Site No. 932001  
Airco Properties, Inc., Airco Parcel  
Niagara Falls, New York**

*Prepared for*

Linde, Inc.  
575 Mountain Avenue  
Murray Hill, New Jersey 07974

*Prepared by*

**GREENSTAR**  
*Engineering, P.C.*

Greenstar Engineering, PC  
6 Gellatly Drive  
Wappingers Falls, New York 12590  
(845) 223-9944

October 2009  
Revision: 0  
Project No.: 150C265.1005

31 October 2009

Mr. Brian Thiesse  
Head of US SHEQ Operations  
Linde North America, Inc.  
575 Mountain Avenue  
Murray Hill, New Jersey 07974

RE: Bi-Annual 2009 Monitoring Event Letter Report, Site No. 932001, Airco Properties Inc., Airco Parcel, Niagara Falls, New York  
Greenstar Project No.: 150C265.1005

Dear Mr. Thiesse:

Greenstar Engineering, P.C. (Greenstar) is pleased to provide the first 2009 Bi-Annual Monitoring Event Letter Report summarizing the operation and maintenance activities at the above referenced site for the period 1 January 2009 to 30 June 2009. The post-closure monitoring and facility maintenance program was initiated at the Airco Parcel located in Niagara Falls, New York, during December 2000. Post-closure monitoring and facility maintenance is required by New York State Solid Waste Management Facilities Regulations (6 NYCRR Part 360-2.15[k][4]) and stipulated in Order on Consent No. B9-0470-94-12. The purpose of this Bi-Annual Monitoring Event Letter Report is to summarize the analytical results of the first bi-annual 2009 groundwater monitoring event that was conducted in May 2009, and to summarize operations and maintenance activities conducted at the Site from January through June 2009.

## **OBJECTIVES**

In accordance with the Revised Final Post-Closure Monitoring and Facility Maintenance Plan for the Airco Parcel, prepared by EA Engineering, PC and its affiliate EA Science and Technology (EA 2004)<sup>1</sup>, environmental monitoring points will be maintained and sampled during the post-closure monitoring period, including the collection of appropriate groundwater, surface water, and groundwater collection treatment system (GCTS) samples. The Post-Closure Monitoring and Facility Maintenance Plan documents sampling locations, sampling parameters and analytical methods, in addition to other required maintenance activities, such as landfill cap inspections and the operations and maintenance plan for the GCTS. Following completion of the first five years of post-closure monitoring, the original Revised Final Post-Closure Monitoring and Facility Maintenance Plan, which was included as Appendix A in the Interim Remedial Measure Report (EA 2001a)<sup>2</sup>, was re-evaluated and revised based on the data collected at the site so that the monitoring plan is more focused to address site-specific issues that were identified during the first five years of post-closure monitoring.

In accordance with the Revised Post-Closure Monitoring and Facility Maintenance Program the following activities are being completed:

- 
1. EA Engineering, P.C. and its Affiliate EA Science and Technology. 2004. Revised Final Post-Closure Monitoring and Facility Maintenance Plan for the Airco Parcel, Niagara Falls, New York. September.
  2. EA Engineering, P.C. and its Affiliate EA Science and Technology. 2001a. Interim Remedial Measure Report Documenting Closure of the Witmer Road Landfill, Niagara Falls, New York. Appendix A – Revised Final Post-Closure Monitoring and Facility Maintenance Plan. January.

- Environmental monitoring points are being maintained and sampled during the post-closure period.
- Bi-annual summary reports are submitted to the New York State Department of Environmental Conservation (NYSDEC) Division of Solid and Hazardous Materials, Region 9; the State of New York State Department of Health in Albany, New York; Linde, Inc.; and the document repository located at the Town of Niagara Town's Clerk's Office.
- Routine inspections of the sediment ponds and the engineered wetlands are conducted to assess the presence of mosquito larvae.
- Drainage structures and ditches are maintained to prevent ponding of water and erosion of the landfill soil cap.
- Soil cover integrity, slopes, cover vegetation, drainage structures, and the perimeter road are maintained during the post-closure monitoring and maintenance period.
- A vegetative cover is maintained on all exposed final cover material, and adequate measures are taken to ensure the integrity of the final vegetated cover, topsoil layer, and underlying barrier protection layer.
- The GCTS is being operated and maintained to effectively mitigate the discharge of groundwater to surface water in the southwest corner of the Airco Parcel.
- Records are maintained of all sampling and analytical results.

## **BACKGROUND**

The Airco Parcel is part of the Vanadium Corporation of America site that is located in the Town of Niagara Falls, New York (Figure 1). The entire Vanadium site is approximately 150 acres in size, with the Airco Parcel encompassing approximately 25 acres. The 25-acre Airco parcel is the focus of this bi-annual sampling event letter report. The site contains waste material from the historic operations of onsite and nearby production facilities.

An Immediate Investigative Work Assignment (IIWA) investigation was conducted by NYSDEC for a portion of the 150-acre parcel in August 1997, and included investigation of the 70 acre parcel owned by Niagara Mohawk Power Corporation and New York Power Authority. During the investigation, NYSDEC determined that the site had been used by Vanadium Corporation of America (the owners of the site from 1924 to 1964) to dispose of wood, brick, ash, lime slag, ferrochromium silicon slag, and ferrochromium silicon dust. Based on results of the IIWA investigation NYSDEC determined that much of the surface material consisted of fill, including fly ash, dust, slag, and cinder materials.

Analytical results of groundwater samples collected at the site during the IIWA investigation indicated that surface water and groundwater standards were exceeded for hexavalent chromium and pH. The Vanadium site, including the Airco Parcel, has been listed as a Class 2 Hazardous Waste Site in the New York State Registry of Inactive Hazardous Waste Sites (Site No. 932001). A Class 2 listing indicates a significant threat to public health and the environment, and requires remedial action.

Remedial measures at the Airco Parcel were completed in 2000 when the landfill was capped as part of an Interim Remedial Measure (IRM) implemented at the Site. A complete description of the history of the site, and the construction details of the landfill capping system, can be found in the Interim Remedial Measure Report (EA 2001b)<sup>3</sup>. During construction of the capping system a

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3. EA Engineering, Science, and Technology. 2001b. Interim Remedial Measure Report Documenting Closure of the Witmer Road Landfill, Niagara Falls, New York. January.

relief pipe system was installed to allow perched water to exit from under the cap without causing slope instability. Flow monitoring and quarterly sampling were initiated as part of post-closure operations and facility maintenance. The data collected since December 2000 indicated that the leachate was actually shallow groundwater discharging to surface water, groundwater discharge was seasonal, and elevated hexavalent chromium ( $\text{Cr}^{6+}$ ) concentrations and pH in groundwater remained in excess of the ambient water quality criteria after mixing with surface water.

The IRM was augmented in 2003 with the design and implementation of the GCTS, which was determined to be necessary to meet the goals of the interim remedial measures program. The GCTS was designed to prevent the uncontrolled discharge of impacted groundwater from the Airco Parcel and includes pH adjustment via carbon dioxide aeration, settling for precipitate removal, oxidation/reduction via zero valence iron, and final clarification via an engineered wetland. The main portion of the GCTS is located at the northwest corner of the site and contains the main control panel, carbon dioxide storage tank, carbon dioxide aeration system, sedimentation tanks, pump stations, zero valence iron reaction tanks, and an engineered wetland. An influent pump station is located at the southwest corner of the site.

## MONITORING EVENT FIELD ACTIVITIES

The Bi-Annual Monitoring Event was completed between 18 and 19 May 2009. The sections below provide a summary of data collected as part of this sampling event.

### Monitoring Well Gauging

The site monitoring wells, Figure 2, were gauged on 18 May 2009 prior to sampling. Gauging data are summarized in the table below:

Monitoring Well	Depth to Water (ft btoc)	Well Elevation (ft AMSL)	Water Elevation (ft AMSL)
MW-1B	10.05	617.77	607.72
MW-2B	11.82	615.88	604.06
MW-3B	8.32	611.22	602.90
MW-4B	6.85	606.68	599.83
MW-5B	5.24	605.48	600.24
MW-6B	3.22	603.47	600.25
MW-7B	9.30	609.48	600.18
MW-8B	4.49	611.62	607.13

NOTE: btoc = Below top of casing.  
AMSL = Above mean sea level.

Figure 3 show the inferred groundwater flow direction at the site.

### Groundwater Sampling Procedures

Monitoring wells were sampled on 19 May 2009. Eight groundwater samples were collected from the site monitoring wells. Monitoring wells MW-3B, MW-4B, MW-5B and MW-8B were purged using dedicated bailers due to slow recharge and limited well volume. Consistent with previous sampling, these wells yield very little groundwater and were bailed dry and allowed to recharge prior to sample collection. Monitoring wells MW-1B, MW-2B, MW-6B, and MW-7B have adequate groundwater yield for low flow sampling utilizing a peristaltic pump. Water quality readings were

allowed to stabilize prior to sample collection. Surface water samples were collected from the drainage swales in the southwest corner. These samples were collected from the eastern swale approximately 80 feet east of the pump station (SS-02); the confluence of the two swales where they discharge from the property (SS-01); and upstream of the confluence (SS-03). The surface water sample locations are shown on Figure 2. Samples were submitted to TestAmerica Laboratories of Amherst, New York for analysis of phenolics by U.S. Environmental Protection Agency (EPA) Method 420.2, sulfate by EPA Method 375.3, ammonia (expressed as nitrogen) by EPA Method 350.2, and Target Analyte List metals by EPA Series 6010/6020, including hexavalent chromium.

Groundwater sampling results were compared to NYSDEC Ambient Water Quality Standards (AWQS) (NYSDEC 1999) and guidance values for Class GA waters. Class GA groundwater is used as a source of drinking water. Surface water samples were compared to NYSDEC AWQS for Class D surface waters. Class D waters are used for fishing but are not conducive to fish propagation. If no Class D standards were applicable for a particular compound, analytical results were compared to the more stringent Class C standards. Class C waters are suitable for fishing and fish propagation. Analytical results for groundwater and surface water are summarized on the table provided in Attachment A. Copies of the well gauging, purging, and sampling forms are provided in Attachment B. Laboratory chain-of-custody records are provided in Attachment C. Laboratory analytical results for groundwater and surface water sampling are included in Attachment D.

## **ANALYTICAL RESULTS**

Summary tables listing analytical results compared to applicable NYSDEC AWQS are included in Attachment A, and a tag map illustrating analytical results is provided as Figure 4.

### **Metals**

Unfiltered metals samples were collected from the 8 monitoring wells. Notable results included the following:

- Chromium, hexavalent chromium, iron, magnesium, manganese, selenium and sodium were detected in one or more of the groundwater samples at concentrations in excess of NYSDEC AWQS.
- Chromium was detected in excess of the NYSDEC AWQS in MW-2B, MW-4B and MW-8B at concentrations ranging from 0.179 mg/L to 0.563 mg/L.
- Hexavalent chromium was detected in excess of the NYSDEC AWQS in MW-2B, MW-4B and MW-8B at concentrations ranging from 0.144 mg/L and 0.229 mg/L, respectively.
- Iron was detected in excess of the NYSDEC AWQS in MW-2B, MW-3B, MW-5B, MW-7B and MW-8B at concentrations ranging from 0.329 mg/L (MW-7B) to 2.19 mg/L (MW-4B).
- Magnesium was detected in excess of the NYSDEC AWQS in MW-1B, MW-4B, MW-5B, MW-6B and MW-8B at concentrations ranging from 44.7 mg/L (MW-4B) to 84.7 mg/L (MW-5B).
- Manganese was detected in excess of the NYSDEC AWQS in MW-1B at a concentration of 0.675 mg/L.

- Selenium was detected in excess of the NYSDEC AWQS in MW-8B at a concentration of 0.04443 mg/L.
- Sodium was detected in excess of the NYSDEC AWQS in all 8 monitoring wells at concentrations ranging from 31.4 mg/L (MW-5B) to 120 mg/L (MW-1B).

Unfiltered metals samples were collected from 3 surface water locations. No metals were detected at concentration above the NYSDEC AWQS for Class D surface waters

### **Water Quality Parameters**

Water quality parameters, including pH, temperature, conductivity, dissolved oxygen, turbidity, and salinity, were collected in the field. In addition, water quality parameters, including ammonia (expressed as N), phenolics, and sulfate, were analyzed by the laboratory. Notable results included the following:

- Phenolics were detected in excess of NYSDEC AWQS in MW-2B at a concentration of 0.0096 mg/L.
- Sulfate was detected in excess of the NYSDEC AWQS in MW-1B and MW-6B at a concentration of 260 mg/L in both monitoring wells.
- pH measurements were measured outside the NYSDEC AWQS of 6.5-8.5 standard pH units in monitoring wells MW-1B (6.42), MW-2B (11.92) and MW-3B (9.38).

### **LANDFILL INSPECTION**

Quarterly landfill cap inspections were conducted on 19 March and 14 June 2009. The Landfill Cap Inspection Checklists are provided as Attachment E. No deterioration, damage, or erosion to the landfill cap was noted during the engineering inspections. The following was observed during the two inspections:

- Ponded Water was noted at the access gate near Witmer Road and on the access road adjacent to the GCTS. It is recommended that crushed gravel be added to these two areas and re-graded to avoid additional degradation of the access roads.
- Weeds have begun to grow up around the GCTS tanks and around the solar panels. It is recommended that geo-textile and stone be placed over this area to reduce/eliminate maintenance costs.
- Monitoring wells protective casings are rusting and should be painted to prevent deterioration.
- The concrete pad under the backup generator has settled. The service tech for the generator noted that it needed to be level to avoid potential damage to the generator.
- Stressed vegetation was observed in the southwest corner where surface water has been diverted away during the collection system upgrades. Additional topsoil should be added and the area re-seeded.

- The swale in the southwest corner has an area approximately 50 feet long that has sloughed into the swale and needs to be repaired.

## **GCTS OPERATIONS AND MAINTENANCE MONITORING ACTIVITIES**

Routine operations and maintenance of the GCTS is performed during site visits twice per month. Activities performed include data collection, cleaning and calibration of pH probes, cleaning of pressure transmitters, operational parameter adjustments based on observed site conditions, and general housekeeping tasks. The replacement of system components, including pumps, pressure transmitters, and pH probes is also scheduled and performed during the routine visits when practicable.

### **System Operations and Maintenance (January – June 2009)**

The GCTS was operated throughout the 6-month period of 1 January – 30 June 2009. System monitoring was conducted throughout the operation period. Attachment G provides details of the problems encountered, and the implemented solutions.

During the reporting period, the GCTS operated for 4,344 hours (100 percent) at an average flow rate of 16.2 gallons per minute (gpm). The GCTS sampling occurred bi-weekly during the operation period. Samples were collected at various locations within the system to evaluate treatment system performance and compliance with discharge criteria. Bi-weekly samples were collected from the system at T3B after CO<sub>2</sub> aeration; T6B after treatment via the zero valence iron tank; after the engineered wetland (EWE); and at the point where the drainage swale exits the site in the southwest corner, when accessible. The samples were analyzed in the field for total chromium and hexavalent chromium using a HACH DR4000<sup>®</sup> spectrophotometer. The HACH DR4000<sup>®</sup> spectrophotometer field method is EPA approved for reporting water and wastewater analyses within a detection limit of 0.006 and 0.005 mg/L for hexavalent chromium, and 0.003 mg/L for total chromium. The engineered wetland discharge samples were analyzed in the field, and separate quarterly samples were also collected for off-site laboratory analysis at Test America Laboratories of Amherst, New York for a full list of discharge criteria. During the report period, two separate occasions noted elevated levels of hexavalent chromium in the surface water where it exits the site in the southwest corner. In both instances, additional grab samples were collected and sent to Test America in Amherst, NY to confirm the presence of hexavalent chromium. In both cases, the laboratory results were non-detect.

Field sampling results for total and hexavalent chromium can be found in Table 1, and results of the quarterly engineered wetland discharge samples can be found in Table 2. Analytical results for the quarterly discharge sampling noted that no constituents exceeded the NYSDEC discharge guidance values for the March or May 2009 discharge sampling. The full set of laboratory analytical data for the GCTS discharge sampling can be found in Attachment F.

### **GCTS Modifications (January – June 2009)**

No major modifications to the GCTS were performed during the report period. Site activities were limited to routine operations and maintenance, including repairs to pumps, VFDs, and pH probes. Attachment G summarizes monthly operation and maintenance details for the period January through June 2009, as well as provides proposed operation and maintenance projects and modification improvements to be implemented in the near future.

If you have any questions regarding the results of this Bi-Annual 2009 Monitoring Event Letter Report, please do not hesitate to contact Charles McLeod at (845) 223-9944.

Sincerely,

GREENSTAR ENGINEERING, P.C.



Charles E. McLeod, Jr., P.E.  
President

CEM/cl  
Attachments

cc: M. Hinton (NYSDEC)  
M. Forcucci (NYSDOH)  
Town of Niagara Falls (Town Clerk)

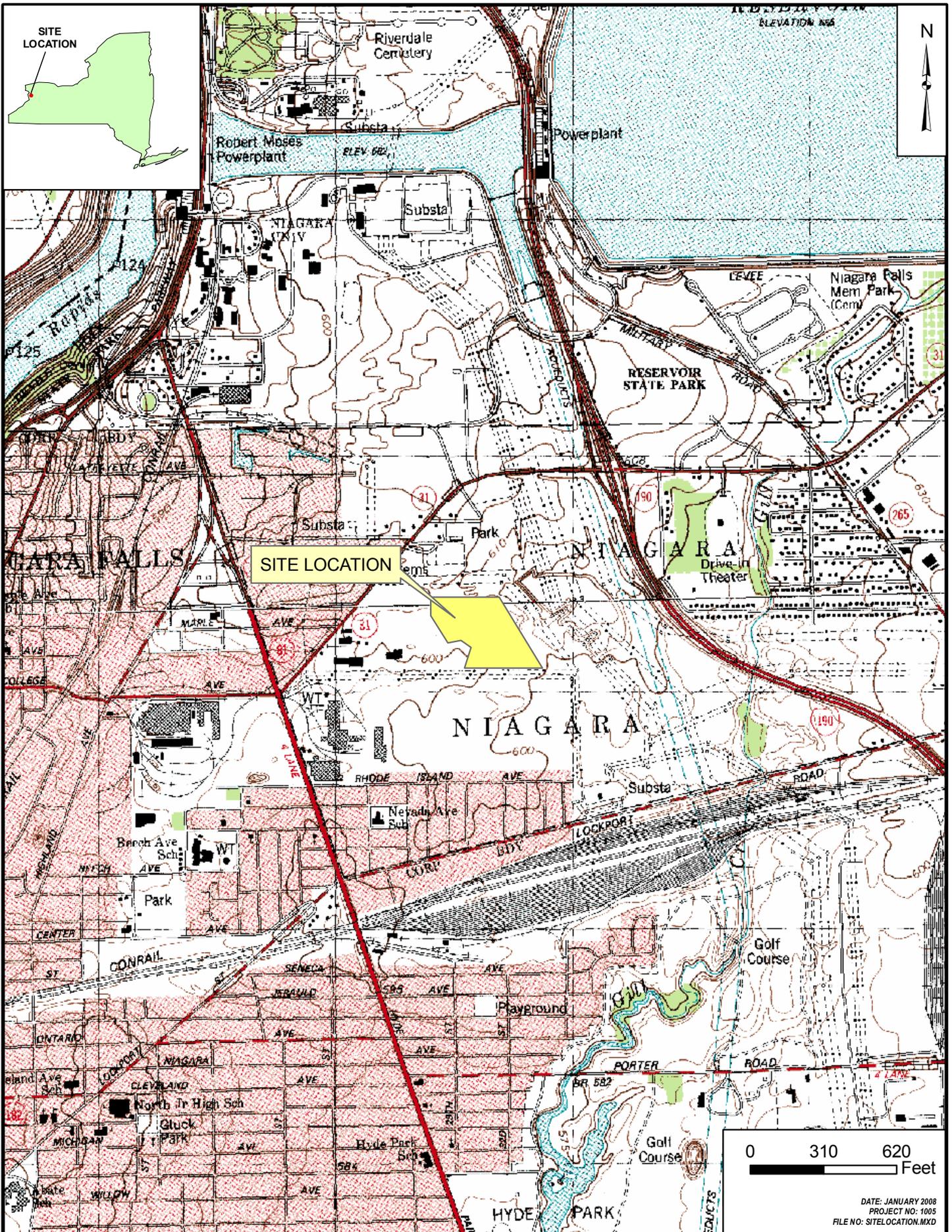
**TABLE 1 SUMMARY OF GCTS FIELD SAMPLING RESULTS  
1 JANUARY – 30 JUNE 2009, AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

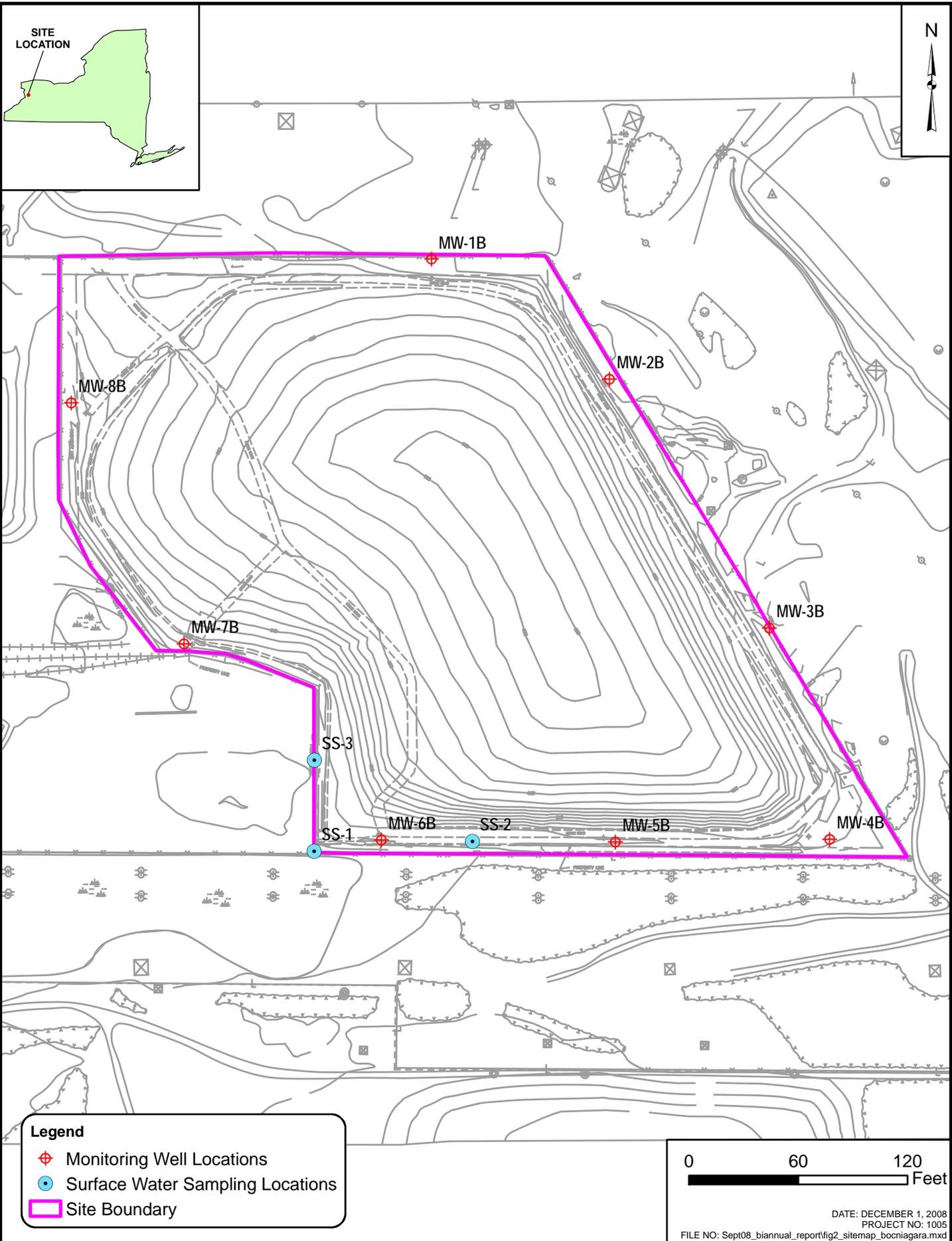
Date	Chromium Tank 3B		Iron Tank 6B		Engineered Wetland		Southwest Corner	
	Total Chromium	Hexavalent Chromium	Total Chromium	Hexavalent Chromium	Total Chromium	Hexavalent Chromium	Total Chromium	Hexavalent Chromium
1/14/09	159 µg/L	64 µg/L	34 µg/L	<3U µg/L	13µg/L	2 µg/L	NS - Ice	NS - Ice
1/27/09	123 µg/L	99 µg/L	41 µg/L	<3U µg/L	31 µg/L	<3U µg/L	NS - Ice	NS - Ice
2/17/09	64 µg/L	14 µg/L	19 µg/L	7 µg/L	17 µg/L	5 µg/L	12 µg/L	8 µg/L
2/24/09	62 µg/L	33 µg/L	<6U µg/L	<3U µg/L	<6U µg/L	<3U µg/L	12 µg/L	<3U µg/L
3/3/09	74 µg/L	63 µg/L	17 µg/L	<3U µg/L	15 µg/L	<3U µg/L	27 µg/L	8 µg/L
3/19/09	152 µg/L	8 µg/L	3 µg/L	<3U µg/L	<6U µg/L	<3U µg/L	12 µg/L	<b>18 µg/L</b>
3/19/09*	NS	NS	NS	NS	NS	NS	<100U µg/L	<11U µg/L
4/7/09	168 µg/L	99 µg/L	29 µg/L	<3U µg/L	10 µg/L	<3U µg/L	13 µg/L	8 µg/L
4/27/09	166 µg/L	107 µg/L	32 µg/L	<3U µg/L	<6U µg/L	<3U µg/L	23 µg/L	<b>23 µg/L</b>
4/27/09*	NS	NS	NS	NS	NS	NS	NS	<11U µg/L
5/5/09	154 µg/L	137 µg/L	48 µg/L	<3U µg/L	<6U µg/L	<3U µg/L	16 µg/L	5 µg/L
5/18/09	93 µg/L	55 µg/L	36 µg/L	<3U µg/L	<6U µg/L	<3U µg/L	14 µg/L	9 µg/L
6/16/09	149 µg/L	106 µg/L	51 µg/L	<3U µg/L	7 µg/L	<3U µg/L	19 µg/L	4 µg/L
6/30/09	113 µg/L	109 µg/L	49 µg/L	<3U µg/L	<6U µg/L	<3U µg/L	24 µg/L	10 µg/L

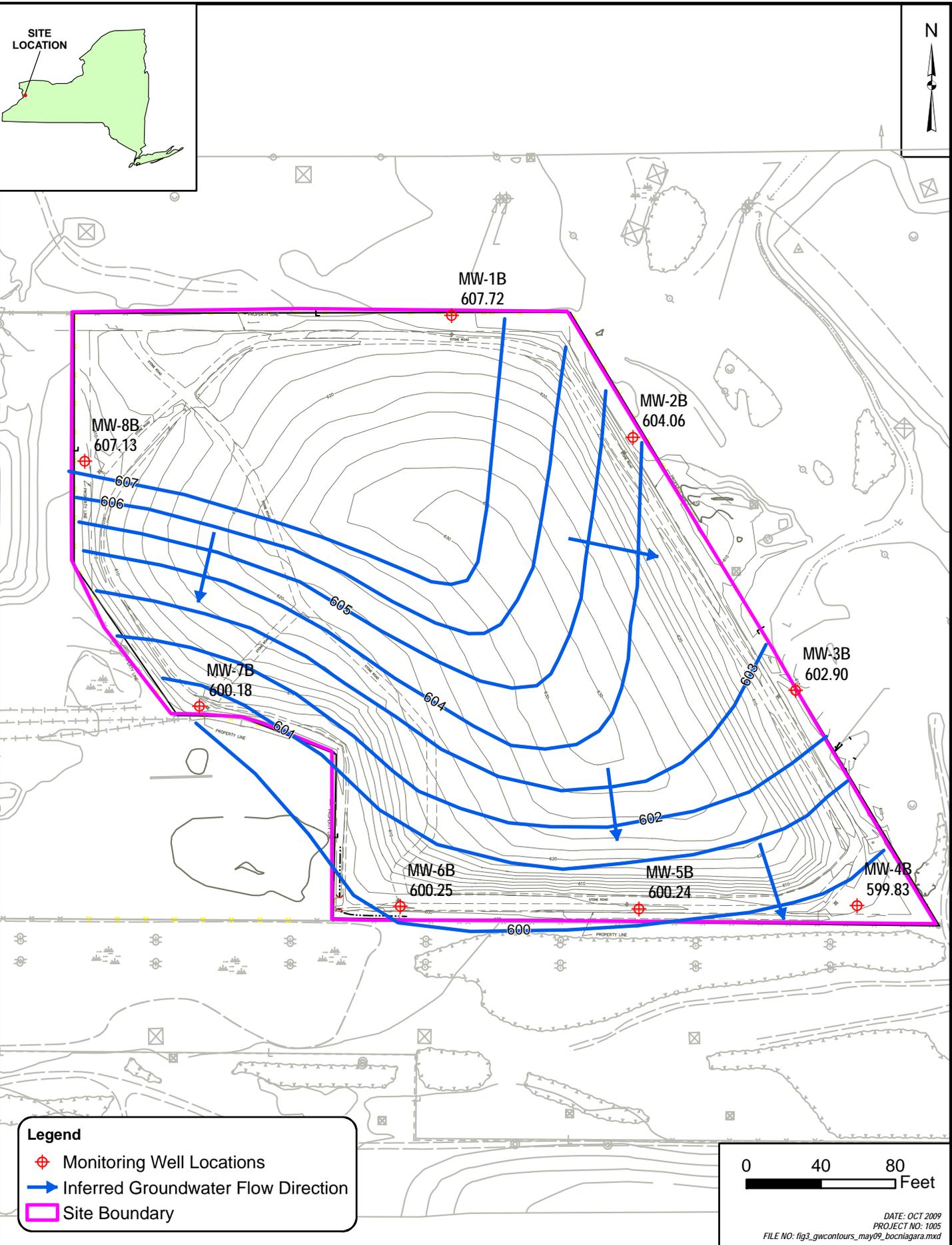
NOTE: NS = Not Sampled  
NS – Ice = Not Sampled due to winter weather conditions.  
**BOLD** field sample results were in excess of SPDES discharge guidance values.  
\*Confirmation sample collected and analyzed by Test America, Buffalo, NY. Both confirmation samples indicated compliance with SPDES discharge values.  
Field samples analyzed using a HACH DR4000® Spectrophotometer.  
Hach Methods 8023 for Hexavalent Chromium and Hach Method 8084 for Total Chromium.

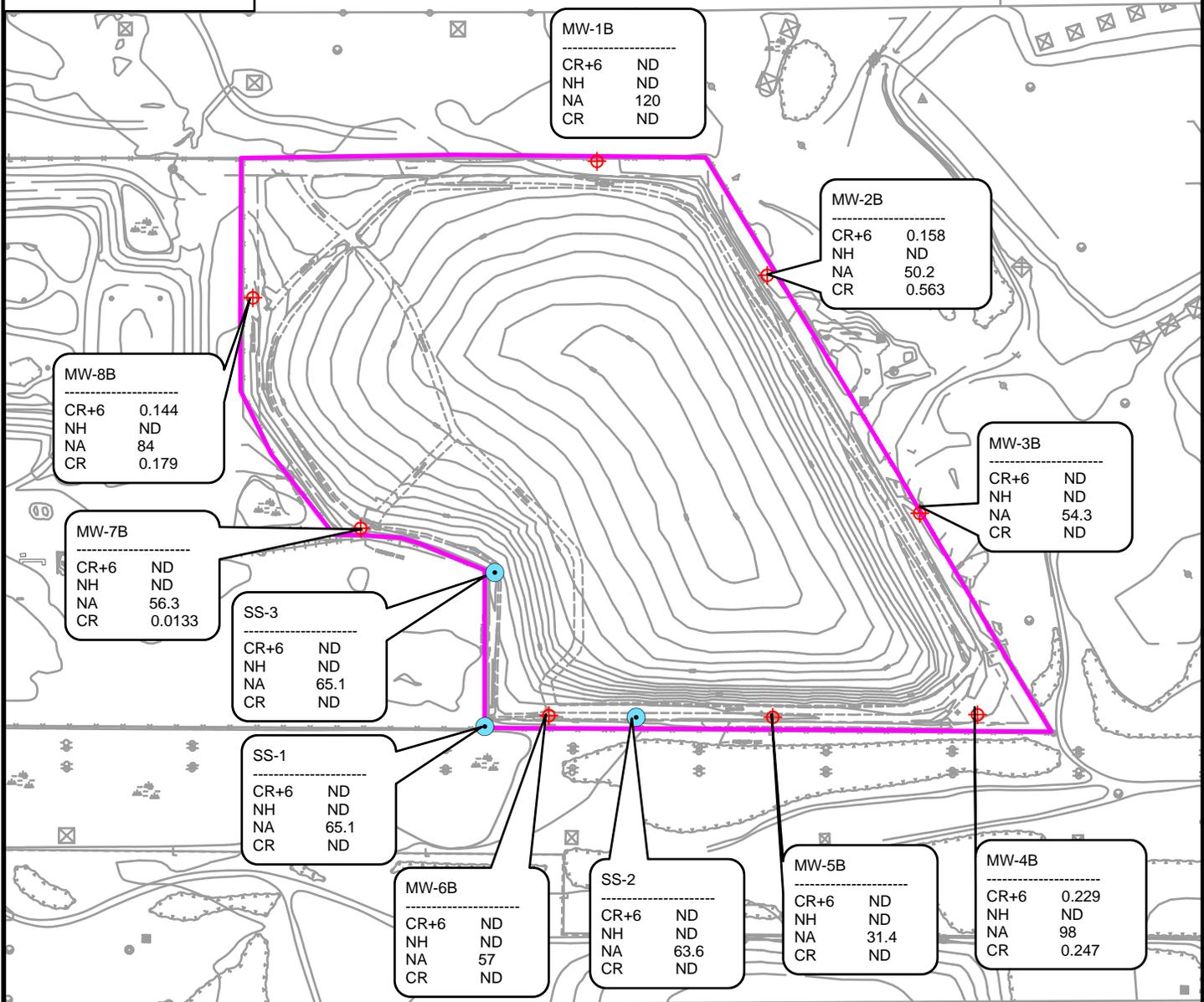
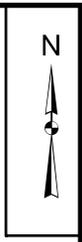
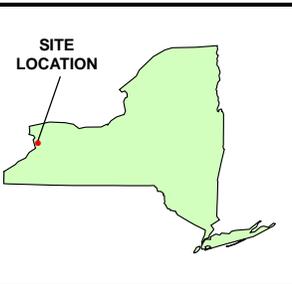
**TABLE 2 SUMMARY OF QUARTERLY GCTS DISCHARGE SAMPLING  
19 MARCH AND 19 MAY 2009,  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

Parameter	19 March 2009	19 May 2009	New York State Department of Environmental Conservation Discharge Criteria
pH	7.80	7.88	6-8 s.u.
Total suspended solids	<10U	<10U	10 mg/L
Dissolved Oxygen	10.4	8.72	7 mg/L
Ammonia as N	<9.2U	<9.2U	9.2 mg/L
Total Kjeldahl nitrogen	<1.0U	<1.0U	Monitor (mg/L)
Total Recoverable Phenolics	<0.008U	<0.008U	.008 mg/L
Biochemical oxygen demand	<5U	<5U	5.0 mg/L
1,1-Dichloroethane	<5U	<5U	5.0 µg/L
Trichloroethene	<5U	<5U	5.0 µg/L
Nickel	<0.07U	<0.07U	0.07 mg/L
Copper	<0.0147U	<0.0147U	0.0147 mg/L
Barium	<2U	<2U	2 mg/L
Total chromium	<0.1U	<0.1U	0.1 mg/L
Hexavalent chromium	<0.011U	<0.011U	0.011 mg/L
Iron	<0.3U	<0.3U	0.3 mg/L
Selenium	<0.0046U	<0.0046U	0.0046 mg/L
Thallium	<0.004U	<0.004U	0.004 mg/L
Zinc	<0.115U	<0.115U	0.115 mg/L
Nitrate as N	1.17	<0.05U	Monitor (mg/L-N)
Nitrite as N	<0.05U	2.30	Monitor (mg/L-N)
Chemical oxygen demand	<40U	<40U	40 mg/L
Total dissolved solids	591	657	Monitor (mg/L)



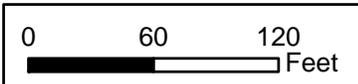






**Legend**

- Monitoring Well Locations
- Surface Water Sampling Locations
- Site Boundary



DATE: AUGUST 2009  
 PROJECT NO: 1005  
 FILE NO: fig4samplereults\_may09\_bocniagara.mxd

## **Attachment A**

# **Summary of Analytical Results Groundwater and Surface Water Samples May 2009**

ATTACHMENT A  
SUMMARY OF ANALYTICAL RESULTS OF SURFACE WATER AND GROUNDWATER SAMPLES COLLECTED  
IN MAY 2009,  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK

**Groundwater**

**Baseline Metals by EPA Method 200.7 (mg/L)**

**Total (Unfiltered)**

		MW-1B	MW-2B	MW-3B	MW-4B	MW-5B	MW-6B	MW-6B (Dup)	MW-7B	MW-8B
<b>Analyte</b>	<b>AWQS</b>									
Cadmium	0.005	(<0.001U)	(<0.001U)	(<0.001U)	(<0.001U)	(<0.001U)	(<0.001U)	(<0.001U)	(<0.001U)	(<0.001U)
Chromium	0.05	(<0.004U)	<b>0.563</b>	(<0.004U)	<b>0.247</b>	(<0.004U)	(<0.004U)	(<0.004U)	0.0133	<b>0.179</b>
Chromium, Hexavalent	0.05	(<0.011U)	<b>0.158</b>	(<0.011U)	<b>0.229</b>	(<0.011U)	(<0.011U)	(<0.011U)	(<0.011U)	<b>0.144</b>
Iron	0.3	0.0899	0.151	0.122	<b>2.19</b>	<b>0.347</b>	<b>0.478</b>	<b>0.474</b>	<b>0.329</b>	<b>0.787</b>
Lead	0.025	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)	(<0.005U)
Magnesium	35*	<b>64.8</b>	(<0.2U)	7.88	<b>44.7</b>	<b>84.7</b>	<b>82.6</b>	<b>89.3</b>	10.7	<b>71.2</b>
Manganese	0.3	<b>0.675</b>	0.0097	0.0126	0.0387	0.0123	0.163	0.174	0.0582	0.125
Selenium	0.01	(<0.015U)	(<0.015U)	(<0.015U)	(<0.015U)	(<0.015U)	(<0.015U)	(<0.015U)	(<0.015U)	<b>0.0444</b>
Silica	---	6.77	1.12	6.34	8.41	7.98	5.92	6.05	4.69	7.59
Sodium	20	<b>120</b>	<b>50.2</b>	<b>54.3</b>	<b>98</b>	<b>31.4</b>	<b>57</b>	<b>61.1</b>	<b>56.3</b>	<b>84</b>
Thallium	0.0005*	(<0.02U)	(<0.02U)	(<0.02U)	(<0.02U)	(<0.02U)	(<0.02U)	(<0.02U)	(<0.02U)	(<0.02U)
Zinc	2*	0.518	(<0.01U)	0.0184	0.0474	0.063	(<0.01U)	(<0.01U)	(<0.01U)	0.115

**Water Quality Parameters (mg/L)**

		MW-1B	MW-2B	MW-3B	MW-4B	MW-5B	MW-6B	MW-6B (Dup)	MW-7B	MW-8B
<b>Analyte</b>	<b>AWQS</b>									
Ammonia (expressed as N)	2	(<9.2U)	(<9.2U)	(<9.2U)	(<9.2U)	(<9.2U)	(<9.2U)	(<9.2U)	(<9.2U)	(<9.2U)
Phenolics	0.001	(<0.008U)	<b>0.0096</b>	(<0.008U)	(<0.008U)	(<0.008U)	(<0.008U)	(<0.008U)	(<0.008U)	(<0.008U)
Sulfate	250	<b>260</b>	(<10U)	66	160	160	<b>260</b>	<b>320</b>	36	230

ATTACHMENT A (CONTINUED)

**Surface Water**

**Baseline Metals by EPA Method 200.7 (mg/L)**

**Total (Unfiltered)**

		SS-01	SS-02	SS-03
<b>Analyte</b>	<b>AWQS</b>			
Cadmium	---	(<0.001U)	(<0.001U)	(<0.001U)
Chromium	---	(<0.004U)	(<0.004U)	(<0.004U)
Chromium, Hexavalent	0.016	(<0.011U)	(<0.011U)	(<0.011U)
Iron	0.3	0.0975	(<0.05U)	(<0.05U)
Lead	---	(<0.005U)	(<0.005U)	(<0.005U)
Magnesium	---	1.37	4.95	1.24
Manganese	---	0.0055	(<0.003U)	0.0067
Selenium	0.0046	(<0.015U)	(<0.015U)	(<0.015U)
Silica	---	0.832	1.48	0.673
Sodium	---	65.1	63.6	65.1
Thallium	0.02	(<0.02U)	(<0.02U)	(<0.02U)
Zinc	---	(<0.01U)	(<0.01U)	(<0.01U)

**Water Quality Parameters (mg/L)**

		SS-01	SS-02	SS-03
<b>Analyte</b>	<b>AWQS</b>			
Ammonia (expressed as N)	---	(<9.2U)	(<9.2U)	(<9.2U)
Phenolics	---	(<0.008U)	(<0.008U)	(<0.008U)
Sulfate	---	11	12	11

**QA/QC**

**Baseline Metals by EPA Method 200.7 (mg/L)**

**Total (Unfiltered)**

		Rinse Blank	Source Water Blank
<b>Analyte</b>	<b>AWQS</b>		
Cadmium	---	(<0.001U)	(<0.001U)
Chromium	---	(<0.004U)	(<0.004U)
Chromium, Hexavalent	---	(<0.011U)	(<0.011U)
Iron	---	(<0.05U)	(<0.05U)
Lead	---	(<0.005U)	(<0.005U)
Magnesium	---	3.42	3.53
Manganese	---	(<0.003U)	(<0.003U)
Selenium	---	(<0.015U)	(<0.015U)
Silica	---	(<0.05U)	(<0.05U)
Sodium	---	8.3	8.4
Thallium	---	(<0.02U)	(<0.02U)
Zinc	---	(<0.01U)	(<0.01U)

**Water Quality Parameters (mg/L)**

		Rinse Blank	Source Water Blank
<b>Analyte</b>	<b>AWQS</b>		
Ammonia (expressed as N)	---	(<9.2U)	(<9.2U)
Phenolics	---	(<0.008U)	(<0.008U)
Sulfate	---	11	12

**TABLE NOTES**

- AWQS = New York State Ambient Water Quality Standards and Guidance Values from Water Quality Regulations, Title 6, Chapter X Parts 700-706 August 1999.
- \* = Indicates guidance value.
- U = Not detected. Sample quantitation limits shown as (<\_\_U).

Only those analytes detected in at least one of the samples is shown on this table. Results shaded and in boldface indicate concentrations in excess of New York State Ambient Water Quality Standards or Guidance Values.

**Analytical Methods for Water Quality Parameters**

Ammonia (expressed as Nitrogen)	=	EPA 350.2
Phenolics	=	EPA 420.2
Silica	=	EPA 6010
Sulfate	=	EPA 375.3

## **Attachment B**

# **Well Gauging, Purging, and Sampling Forms May 2009**

**WELL GAUGING, PURGING AND SAMPLING FORM**

<b>Well I.D.:</b> AP-MW1B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 16:30	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/19/2009	<b>Purge Time:</b> 8:15
<b>Purge Method:</b> Low-Flow	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 27.83	<b>D. Well Volume (ft3):</b> 0.39	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 10.05	<b>E. Well Volume (L)</b> 10.98	<b>Pump Type:</b> Peristaltic
<b>C. Liquid Depth (ft) (A-B):</b> 17.78		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
8:23	10.61	1	0.25	6.73	2.65	9.9	3.53	9.54	172
8:27	10.62	2	0.25	6.65	2.69	7.9	2.70	9.54	146
8:32	10.63	3	0.25	6.56	2.70	9.3	1.24	9.71	65
8:35	10.64	4	0.25	6.51	2.71	9.8	0.73	9.76	61
8:39	10.67	5	0.25	6.47	2.70	9.1	0.15	9.95	57
8:43	10.71	6	0.25	6.43	2.70	10.5	0.00	10.02	53
8:47	10.72	7	0.25	6.42	2.69	18.6	0.00	10.13	51
8:51	10.73	8	0.25	6.42	2.69	18.1	0.00	10.16	49
8:55	10.74	9	0.25	6.42	2.70	18.2	0.00	10.17	47

<b>Total Quantity of Water Removed:</b>	<u>9 L</u>	<b>Sampling Time:</b>	<u>8:55</u>
<b>Samplers:</b>	<u>SB</u>	<b>Split Sample With:</b>	<u>N/A</u>
<b>Sampling Date:</b>	<u>19-May-09</u>	<b>Sample Type:</b>	<u>Grab</u>

**COMMENTS AND OBSERVATIONS:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## WELL GAUGING, PURGING AND SAMPLING FORM

<b>Well I.D.:</b> AP-MW2B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 16:40	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/19/2009	<b>Purge Time:</b> 9:30
<b>Purge Method:</b> Low-Flow	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 27.31	<b>D. Well Volume (ft3):</b> 0.34	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 11.82	<b>E. Well Volume (L):</b> 9.56	<b>Pump Type:</b> Peristaltic
<b>C. Liquid Depth (ft) (A-B):</b> 15.49		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
9:34	12.45	1	0.25	11.51	11.80	46.0	1.77	10.69	-111
9:38	12.52	2	0.25	11.74	11.90	44.8	1.47	10.48	-124
9:42	12.52	3	0.25	11.82	11.80	38.6	1.40	10.21	-126
9:46	12.55	4	0.25	11.88	11.90	38.4	1.35	10.00	-126
9:50	12.56	5	0.25	11.92	11.90	40.2	1.33	10.01	-126
9:54	12.56	6	0.25	11.92	11.90	41.6	1.35	10.02	-126

<b>Total Quantity of Water Removed:</b> _____ 6 L	<b>Sampling Time:</b> _____ 9:54
<b>Samplers:</b> _____ SB	<b>Split Sample With:</b> _____ N/A
<b>Sampling Date:</b> _____ 19-May-09	<b>Sample Type:</b> _____ Grab

**COMMENTS AND OBSERVATIONS:** \_\_\_\_\_ Kink in well casing; consider repairing.

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**WELL GAUGING, PURGING AND SAMPLING FORM**

<b>Well I.D.:</b> AP-MW3B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 16:50	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/18/2009	<b>Purge Time:</b> 16:55
<b>Purge Method:</b> Hand Bail	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 18.41	<b>D. Well Volume (ft3):</b> 0.22	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 8.32	<b>E. Well Volume (L):</b> 6.23	<b>Pump Type:</b> Poly Bailer
<b>C. Liquid Depth (ft) (A-B):</b> 10.09		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
16:55	8.32	0.5	N/A	7.21	0.421	19.0	11.12	10.84	108
17:09	Dry	8	N/A	7.52	0.411	54.8	10.48	11.98	67
10:35	8.52	N/A	N/A	9.48	0.42	36.2	10.98	10.85	131

**Total Quantity of Water Removed:** 8 L      **Sampling Time:** 10:35  
**Samplers:** SB      **Split Sample With:** N/A  
**Sampling Date:** 19-May-09      **Sample Type:** Grab

**COMMENTS AND OBSERVATIONS:** Well purged dry and sampled the following day.  
Replace bailer for fall event.

**WELL GAUGING, PURGING AND SAMPLING FORM**

<b>Well I.D.:</b> AP-MW4B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 17:20	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/18/2009	<b>Purge Time:</b> 17:25
<b>Purge Method:</b> Hand Bail	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 15.08	<b>D. Well Volume (ft3):</b> 0.18	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 6.85	<b>E. Well Volume (L):</b> 5.08	<b>Pump Type:</b> Poly Bailer
<b>C. Liquid Depth (ft) (A-B):</b> 8.23		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
17:25	6.85	0.5	N/A	6.98	0.847	37.9	10.51	10.72	185
17:33	Dry	8	N/A	7.08	0.843	> 999	10.79	9.68	186
10:50	6.80	N/A	N/A	8.18	0.837	96.1	10.06	12.10	186

**Total Quantity of Water Removed:** 8 L                      **Sampling Time:** 10:50  
**Samplers:** SB    **Split Sample With:** N/A  
**Sampling Date:** 19-May-09                                      **Sample Type:** Grab

**COMMENTS AND OBSERVATIONS:** Well purged dry and sampled the following day.  
Replace bailer for fall event.

**WELL GAUGING, PURGING AND SAMPLING FORM**

<b>Well I.D.:</b> AP-MW5B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 17:42	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/18/2009	<b>Purge Time:</b> 17:44
<b>Purge Method:</b> Hand Bail	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 14.22	<b>D. Well Volume (ft3):</b> 0.20	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 5.24	<b>E. Well Volume (L):</b> 5.54	<b>Pump Type:</b> Poly Bailer
<b>C. Liquid Depth (ft) (A-B):</b> 8.98		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
17:44	5.24	0.5	N/A	6.86	1.630	34.5	9.30	13.88	221
17:51	Dry	8	N/A	6.90	1.770	649.0	10.32	10.72	242
11:30	5.40	N/A	N/A	7.60	0.912	36.0	9.27	14.73	210

**Total Quantity of Water Removed:** 8 L      **Sampling Time:** 11:30  
**Samplers:** SB      **Split Sample With:** N/A  
**Sampling Date:** 19-May-09      **Sample Type:** Grab

**COMMENTS AND OBSERVATIONS:** Well purged dry and sampled the following day.  
Replace bailer for fall event.

**WELL GAUGING, PURGING AND SAMPLING FORM**

<b>Well I.D.:</b> AP-MW6B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 18:00	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/19/2009	<b>Purge Time:</b> 11:55
<b>Purge Method:</b> Low-Flow	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 23.02	<b>D. Well Volume (ft3):</b> 0.43	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 3.22	<b>E. Well Volume (L):</b> 12.22	<b>Pump Type:</b> Peristaltic
<b>C. Liquid Depth (ft) (A-B):</b> 19.80		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
12:00	5.42	1	0.25	7.23	1.92	232.0	0.52	12.32	-79
12:04	6.50	2	0.25	7.08	1.89	24.3	0.00	12.91	-83
12:08	7.76	3	0.25	6.98	1.90	12.8	0.00	12.75	-82
12:12	8.74	4	0.25	6.95	1.90	9.4	0.00	12.71	-82
12:16	9.81	5	0.25	6.91	1.90	9.1	0.00	12.67	-81
12:20	10.21	6	0.25	6.88	1.91	9.6	0.00	12.57	-81
12:24	11.27	7	0.25	6.86	1.92	9.3	0.00	12.49	-80

**Total Quantity of Water Removed:** 7 L                      **Sampling Time:** 12:24  
**Samplers:** SB    **Split Sample With:** AP-DUP-01  
**Sampling Date:** 19-May-09                                      **Sample Type:** Grab

**COMMENTS AND OBSERVATIONS:** AP-DUP-01 collected from AP-MW-6B

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## WELL GAUGING, PURGING AND SAMPLING FORM

<b>Well I.D.:</b> AP-MW7B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 18:10	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/19/2009	<b>Purge Time:</b> 13:32
<b>Purge Method:</b> Low-Flow	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 21.79	<b>D. Well Volume (ft3):</b> 0.27	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 9.30	<b>E. Well Volume (L):</b> 7.71	<b>Pump Type:</b> Peristaltic
<b>C. Liquid Depth (ft) (A-B):</b> 12.49		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
13:36	11.82	1	0.25	7.52	0.333	31.0	0.00	11.91	-19
13:40	12.66	2	0.25	7.52	0.332	30.5	0.00	11.75	-40
13:44	13.52	3	0.25	7.53	0.332	25.1	0.00	11.78	-69
13:48	14.48	4	0.25	7.53	0.333	29.9	0.00	11.74	-81
13:52	15.68	5	0.25	7.53	0.333	34.8	0.00	11.89	91
13:56	16.27	6	0.25	7.52	0.334	36.4	0.00	11.98	-97
14:00	17.00	7	0.25	7.52	0.333	36.3	0.00	12.03	-100

<b>Total Quantity of Water Removed:</b> _____	<b>Sampling Time:</b> _____
<b>Samplers:</b> _____	<b>Split Sample With:</b> _____
<b>Sampling Date:</b> _____	<b>Sample Type:</b> _____

**COMMENTS AND OBSERVATIONS:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**WELL GAUGING, PURGING AND SAMPLING FORM**

<b>Well I.D.:</b> AP-MW8B	<b>Personnel:</b> Steve Bazilus	<b>Client:</b> Linde, Inc.
<b>Location:</b> Niagara Falls	<b>Well Condition:</b> Locked	<b>Weather:</b> Mostly Sunny, 63°
<b>Sounding Method:</b> WLI	<b>Gauge Date:</b> 5/18/2009	<b>Measurement Ref:</b> TOC
<b>Stick Up/Down (ft):</b> UP	<b>Gauge Time:</b> 18:14	<b>Well Diameter (in):</b> 2"

<b>Purge Date:</b> 5/18/2009	<b>Purge Time:</b> 18:15
<b>Purge Method:</b> Hand Bail	<b>Greenstar Personnel:</b> SB

Well Volume		
<b>A. Well Depth (ft):</b> 15.51	<b>D. Well Volume (ft3):</b> 0.24	<b>Depth/Height of Top of PVC:</b> N/A
<b>B. Depth to Water (ft):</b> 4.49	<b>E. Well Volume (L):</b> 6.80	<b>Pump Type:</b> Poly Bailer
<b>C. Liquid Depth (ft) (A-B):</b> 11.02		<b>Pump Designation:</b> N/A

Water Quality Parameters									
Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	Conduct. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp. (° C)	ORP (mv)
18:15	4.49	0.5	N/A	6.79	1.930	4.5	9.21	11.79	285
18:23	Dry	8	N/A	6.87	2.040	> 999	10.33	9.71	265
14:40	4.50	N/A	N/A	7.04	2.05	63.9	9.37	13.84	182

**Total Quantity of Water Removed:** 8 L                      **Sampling Time:** 14:40  
**Samplers:** SB    **Split Sample With:** N/A  
**Sampling Date:** 19-May-09                                      **Sample Type:** Grab

**COMMENTS AND OBSERVATIONS:** Well purged dry and sampled the following day.  
Replace bailer for fall event.

## **Attachment C**

### **Chain-of-Custody Records**



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_  
 Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1/007)  
 Client: GREENSTAR ENG. Project Manager: Chip McLeod Chain of Custody Number: 111882  
 Address: 6 Gallyally Drive Telephone Number (Area Code)/Fax Number: 845-223-9944/9955 Lab Number: 05/19/09 Page 1 of 2  
 City: Wappingers Falls State: NY Zip Code: 12590 Site Contact: JRK Carrier/Waybill Number: \_\_\_\_\_  
 Project Name and Location (State): AIRCO SEMI-ANNUAL GW MON: MAY-09 (NY)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives				Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Soil	Water	Sludge	Other	Soil	Water	Sludge	Other				
AP-MW-1B	05/19/09	0855	X											
AP-MW-2B		0954												
AP-MW-3B		1035												
AP-MW-4B		1050												
AP-MW-5B		1130												
AP-MW-6B		1224												
AP-MW-7B		1400												
AP-MW-8B		1440												
AP-DUP-01		N/A												
AP-SWB-01		1500												
AP-RB-01		1510												
AP-SS-01		1025												

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Other \_\_\_\_\_  
 Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_  
 Sample Disposal:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)  
 OC Requirements (Specify): \_\_\_\_\_  
 1. Requisitioned By: [Signature] Date: 05/19/09 Time: 1550  
 2. Requisitioned By: [Signature] Date: 05/19/09 Time: 1550  
 3. Requisitioned By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Comments: \* CR+6 ANALYSIS - STORED HOLD # 3020  
 DISTRIBUTION: WHITE - Returned to Client with Report. CANNARY - Stays with the Sample. PINK - Field Copy





**Attachment D**

**Laboratory Analytical Results for  
Groundwater and Surface Water Sampling  
May 2009**

## Analytical Report

Work Order: RSE0685

Project Description  
Semi-Annual GW Monitoring

For:

Charles E. McLeod, Jr.

**Greenstar Environmental Solutions, LLC**

6 Gellatly Drive

Wappinger Falls, NY 12590



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Jason Kacalski

Project Manager

[jason.kacalski@testamericainc.com](mailto:jason.kacalski@testamericainc.com)

Wednesday, June 10, 2009

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception 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. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

## TestAmerica Buffalo Current Certifications

As of 1/27/2009

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>Arkansas</b>	CWA, RCRA, SOIL	88-0686
<b>California*</b>	NELAP CWA, RCRA	01169CA
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida*</b>	NELAP CWA, RCRA	E87672
<b>Georgia*</b>	SDWA, NELAP CWA, RCRA	956
<b>Illinois*</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas*</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana*</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY0044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	SDWA, CWA, RCRA	036-999-337
<b>New Hampshire*</b>	NELAP SDWA, CWA	233701
<b>New Jersey*</b>	NELAP, SDWA, CWA, RCRA,	NY455
<b>New York*</b>	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania*</b>	NELAP CWA, RCRA	68-00281
<b>Tennessee</b>	SDWA	02970
<b>Texas*</b>	NELAP CWA, RCRA	T104704412-08-TX
<b>USDA</b>	FOREIGN SOIL PERMIT	S-41579
<b>USDOE</b>	Department of Energy	DOECAP-STB
<b>Virginia</b>	SDWA	278
<b>Washington*</b>	NELAP CWA, RCRA	C1677
<b>Wisconsin</b>	CWA, RCRA	998310390
<b>West Virginia</b>	CWA, RCRA	252

\*As required under the indicated accreditation, 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.

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685

Project: Semi-Annual GW Monitoring

Project Number: GES

Received: 05/19/09

Reported: 06/10/09 15:02

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## Case Narrative

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

There are pertinent documents appended to this report, 33 pages, are included and are an integral part of this report. Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
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The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to the lab MDL. It must be noted that results reported below lab standard quantitation limits (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

<u>SpecificMethod</u>	<u>Analyte</u>	<u>Units</u>	<u>Client RL</u>	<u>Lab PQL</u>
200.7	Lead	mg/L	0.0050	0.0060

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## DATA QUALIFIERS AND DEFINITIONS

- D08** Dilution required due to high concentration of target analyte(s)  
**R4** Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.  
**NR** Any inclusion of NR indicates that the project specific requirements do not require reporting to method detection limit (MDL)

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685  
Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-01 (AP-MW-1B - Water)</b>					<b>Sampled: 05/19/09 08:55</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	260	D08	20	NR	mg/L	10.0	06/03/09 14:36	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Iron	0.0899		0.0500	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Magnesium	64.8		0.200	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Manganese	0.675		0.0030	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Sodium	120		1.0	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Zinc	0.518		0.0100	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	6770		2500	250	ug/L	5.00	06/01/09 14:52	NP	27533	6010B
<b>Sample ID: RSE0685-02 (AP-MW-2B - Water)</b>					<b>Sampled: 05/19/09 09:54</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>General Chemistry Parameters</u></b>										
Chromium, Hexavalent	158		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	9.6		8.0	NR	ug/L	1.00	05/26/09 18:34	RLG	9E22019	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Chromium	0.563		0.0040	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Iron	0.151		0.0500	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Manganese	0.0097		0.0030	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Sodium	50.2		1.0	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	1120		500	50.0	ug/L	1.00	06/01/09 16:37	NP	27533	6010B
<b>Sample ID: RSE0685-03 (AP-MW-3B - Water)</b>					<b>Sampled: 05/19/09 10:35</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	66		10	NR	mg/L	1.00	06/03/09 14:56	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Iron	0.122		0.0500	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Magnesium	7.88		0.200	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Manganese	0.0126		0.0030	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Sodium	54.3		1.0	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Zinc	0.0184		0.0100	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	6340		2500	250	ug/L	5.00	06/01/09 15:03	NP	27533	6010B
<b>Sample ID: RSE0685-04 (AP-MW-4B - Water)</b>					<b>Sampled: 05/19/09 10:50</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	160	D08	10	NR	mg/L	5.00	06/03/09 15:06	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685  
Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-04 (AP-MW-4B - Water) - cont.</b>					<b>Sampled: 05/19/09 10:50</b>			<b>Recvd: 05/19/09 15:50</b>		
<b>General Chemistry Parameters - cont.</b>										
Chromium, Hexavalent	229		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
<b>Total Metals by EPA 200 Series Methods</b>										
Chromium	0.247		0.0040	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Iron	2.19		0.0500	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Magnesium	44.7		0.200	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Manganese	0.0387		0.0030	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Sodium	98.0		1.0	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Zinc	0.0474		0.0100	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
<b>Metals (ICP)</b>										
Si	8410		2500	250	ug/L	5.00	06/01/09 15:09	NP	27533	6010B
<b>Sample ID: RSE0685-05 (AP-MW-5B - Water)</b>					<b>Sampled: 05/19/09 11:30</b>			<b>Recvd: 05/19/09 15:50</b>		
<b>Anions by EPA Method 300.0</b>										
Sulfate	160	D08	10	NR	mg/L	5.00	06/03/09 15:17	TCH	9F05015	300
<b>Total Metals by EPA 200 Series Methods</b>										
Iron	0.347		0.0500	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Magnesium	84.7		0.200	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Manganese	0.0123		0.0030	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Sodium	31.4		1.0	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Zinc	0.0630		0.0100	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
<b>Metals (ICP)</b>										
Si	7980		2500	250	ug/L	5.00	06/01/09 15:15	NP	27533	6010B
<b>Sample ID: RSE0685-06 (AP-MW-6B - Water)</b>					<b>Sampled: 05/19/09 12:24</b>			<b>Recvd: 05/19/09 15:50</b>		
<b>Anions by EPA Method 300.0</b>										
Sulfate	260	D08	10	NR	mg/L	5.00	06/03/09 15:27	TCH	9F05015	300
<b>Total Metals by EPA 200 Series Methods</b>										
Iron	0.478		0.0500	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Magnesium	82.6		0.200	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Manganese	0.163		0.0030	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Sodium	57.0		1.0	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
<b>Metals (ICP)</b>										
Si	5920		2500	250	ug/L	5.00	06/01/09 15:21	NP	27533	6010B
<b>Sample ID: RSE0685-07 (AP-MW-7B - Water)</b>					<b>Sampled: 05/19/09 14:00</b>			<b>Recvd: 05/19/09 15:50</b>		
<b>Anions by EPA Method 300.0</b>										
Sulfate	36		10	NR	mg/L	1.00	06/03/09 15:37	TCH	9F05015	300
<b>Total Metals by EPA 200 Series Methods</b>										
Chromium	0.0133		0.0040	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685  
Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-07 (AP-MW-7B - Water) - cont.</b>					<b>Sampled: 05/19/09 14:00</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Total Metals by EPA 200 Series Methods - cont.</u></b>										
Iron	0.329		0.0500	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Magnesium	10.7		0.200	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Manganese	0.0582		0.0030	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Sodium	56.3		1.0	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	4690		2500	250	ug/L	5.00	06/01/09 15:26	NP	27533	6010B
<b>Sample ID: RSE0685-08 (AP-MW-8B - Water)</b>					<b>Sampled: 05/19/09 14:40</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	230	D08	10	NR	mg/L	5.00	06/08/09 17:36	TCH	9F09009	300
<b><u>General Chemistry Parameters</u></b>										
Chromium, Hexavalent	144		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Chromium	0.179		0.0040	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Iron	0.787		0.0500	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Magnesium	71.2		0.200	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Manganese	0.125		0.0030	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Selenium	0.0444		0.0150	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Sodium	84.0		1.0	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Zinc	0.115		0.0100	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	7590		2500	250	ug/L	5.00	06/01/09 15:32	NP	27533	6010B
<b>Sample ID: RSE0685-09 (AP-DUP-01 - Water)</b>					<b>Sampled: 05/19/09</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	320	D08	40	NR	mg/L	20.0	06/03/09 16:07	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Iron	0.474		0.0500	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Magnesium	89.3		0.200	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Manganese	0.174		0.0030	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Sodium	61.1		1.0	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	6050		2500	250	ug/L	5.00	06/01/09 15:38	NP	27533	6010B
<b>Sample ID: RSE0685-10 (AP-SWB-01 - Water)</b>					<b>Sampled: 05/19/09 15:00</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	14		10	NR	mg/L	1.00	06/03/09 16:38	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Magnesium	3.53		0.200	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685  
Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-10 (AP-SWB-01 - Water) - cont.</b>					<b>Sampled: 05/19/09 15:00</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Total Metals by EPA 200 Series Methods - cont.</u></b>										
Sodium	8.4		1.0	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
<b>Sample ID: RSE0685-10RE1 (AP-SWB-01 - Water)</b>					<b>Sampled: 05/19/09 15:00</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	12		10	NR	mg/L	1.00	06/08/09 17:46	TCH	9F09009	300
<b>Sample ID: RSE0685-11 (AP-RB-01 - Water)</b>					<b>Sampled: 05/19/09 15:10</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	15		10	NR	mg/L	1.00	06/03/09 16:48	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Magnesium	3.42		0.200	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Sodium	8.3		1.0	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
<b>Sample ID: RSE0685-11RE1 (AP-RB-01 - Water)</b>					<b>Sampled: 05/19/09 15:10</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	11		10	NR	mg/L	1.00	06/08/09 17:57	TCH	9F09009	300
<b>Sample ID: RSE0685-12 (AP-SS-01 - Water)</b>					<b>Sampled: 05/19/09 10:25</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	11		10	NR	mg/L	1.00	06/03/09 16:58	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Iron	0.0975		0.0500	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Magnesium	1.37		0.200	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Manganese	0.0055		0.0030	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Sodium	65.1		1.0	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	832		500	50.0	ug/L	1.00	06/01/09 16:55	NP	27533	6010B
<b>Sample ID: RSE0685-13 (AP-SS-02 - Water)</b>					<b>Sampled: 05/19/09 11:20</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	15		10	NR	mg/L	1.00	06/03/09 17:08	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Magnesium	4.95		0.200	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Sodium	63.6		1.0	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	1480		500	50.0	ug/L	1.00	06/01/09 16:14	NP	27533	6010B
<b>Sample ID: RSE0685-13RE1 (AP-SS-02 - Water)</b>					<b>Sampled: 05/19/09 11:20</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	12		10	NR	mg/L	1.00	06/08/09 18:07	TCH	9F09009	300

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Work Order: RSE0685  
 Project: Semi-Annual GW Monitoring  
 Project Number: GES

Received: 05/19/09  
 Reported: 06/10/09 15:02

## Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-14 (AP-SS-03 - Water)</b>					<b>Sampled: 05/19/09 13:00</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	11		10	NR	mg/L	1.00	06/03/09 17:18	TCH	9F05015	300
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Magnesium	1.24		0.200	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Manganese	0.0067		0.0030	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Sodium	65.1		1.0	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	673		500	50.0	ug/L	1.00	06/01/09 16:20	NP	27533	6010B

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Received: 05/19/09  
 Reported: 06/10/09 15:02

## Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
AP-MW-1B	RSE0685-01	Water	05/19/09 08:55	05/19/09 15:50	
AP-MW-2B	RSE0685-02	Water	05/19/09 09:54	05/19/09 15:50	
AP-MW-3B	RSE0685-03	Water	05/19/09 10:35	05/19/09 15:50	
AP-MW-4B	RSE0685-04	Water	05/19/09 10:50	05/19/09 15:50	
AP-MW-5B	RSE0685-05	Water	05/19/09 11:30	05/19/09 15:50	
AP-MW-6B	RSE0685-06	Water	05/19/09 12:24	05/19/09 15:50	
AP-MW-7B	RSE0685-07	Water	05/19/09 14:00	05/19/09 15:50	
AP-MW-8B	RSE0685-08	Water	05/19/09 14:40	05/19/09 15:50	
AP-DUP-01	RSE0685-09	Water	05/19/09	05/19/09 15:50	
AP-SWB-01	RSE0685-10	Water	05/19/09 15:00	05/19/09 15:50	
AP-RB-01	RSE0685-11	Water	05/19/09 15:10	05/19/09 15:50	
AP-SS-01	RSE0685-12	Water	05/19/09 10:25	05/19/09 15:50	
AP-SS-02	RSE0685-13	Water	05/19/09 11:20	05/19/09 15:50	
AP-SS-03	RSE0685-14	Water	05/19/09 13:00	05/19/09 15:50	

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Work Order: RSE0685  
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Received: 05/19/09  
Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-01 (AP-MW-1B - Water)</b>							<b>Sampled: 05/19/09 08:55</b>		<b>Recvd: 05/19/09 15:50</b>	
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	260	D08	20	NR	mg/L	10.0	06/03/09 14:36	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:31	RMM	9E20032	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/22/09 19:38	JMM	9E21099	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Iron	0.0899		0.0500	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Magnesium	64.8		0.200	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Manganese	0.675		0.0030	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Sodium	120		1.0	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
Zinc	0.518		0.0100	NR	mg/L	1.00	05/22/09 02:12	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	6770		2500	250	ug/L	5.00	06/01/09 14:52	NP	27533	6010B

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Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-02 (AP-MW-2B - Water)</b>						<b>Sampled: 05/19/09 09:54</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	ND		10	NR	mg/L	1.00	06/03/09 14:46	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:32	RMM	9E20032	350.1
Chromium, Hexavalent	<b>158</b>		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	<b>9.6</b>		8.0	NR	ug/L	1.00	05/26/09 18:34	RLG	9E22019	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Chromium	<b>0.563</b>		0.0040	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Iron	<b>0.151</b>		0.0500	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Magnesium	ND		0.200	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Manganese	<b>0.0097</b>		0.0030	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Sodium	<b>50.2</b>		1.0	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 02:17	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	<b>1120</b>		500	50.0	ug/L	1.00	06/01/09 16:37	NP	27533	6010B

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Received: 05/19/09  
Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-02RE1 (AP-MW-2B - Water)</b>						<b>Sampled: 05/19/09 09:54</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	ND		10	NR	mg/L	1.00	06/08/09 17:26	TCH	9F09009	300

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## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-03 (AP-MW-3B - Water)</b>							<b>Sampled: 05/19/09 10:35</b>		<b>Recvd: 05/19/09 15:50</b>	
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	66		10	NR	mg/L	1.00	06/03/09 14:56	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:35	RMM	9E20032	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:34	RLG	9E22019	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Iron	0.122		0.0500	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Magnesium	7.88		0.200	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Manganese	0.0126		0.0030	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Sodium	54.3		1.0	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
Zinc	0.0184		0.0100	NR	mg/L	1.00	05/22/09 02:22	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	6340		2500	250	ug/L	5.00	06/01/09 15:03	NP	27533	6010B

Greenstar Environmental Solutions, LLC  
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Wappinger Falls, NY 12590

Work Order: RSE0685  
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Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-04 (AP-MW-4B - Water)</b>						<b>Sampled: 05/19/09 10:50</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	160	D08	10	NR	mg/L	5.00	06/03/09 15:06	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:36	RMM	9E20032	350.1
Chromium, Hexavalent	229		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:34	RLG	9E22019	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Chromium	0.247		0.0040	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Iron	2.19		0.0500	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Magnesium	44.7		0.200	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Manganese	0.0387		0.0030	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Sodium	98.0		1.0	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
Zinc	0.0474		0.0100	NR	mg/L	1.00	05/22/09 02:47	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	8410		2500	250	ug/L	5.00	06/01/09 15:09	NP	27533	6010B

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## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-05 (AP-MW-5B - Water)</b>						<b>Sampled: 05/19/09 11:30</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	160	D08	10	NR	mg/L	5.00	06/03/09 15:17	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:39	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:34	RLG	9E22019	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Iron	0.347		0.0500	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Magnesium	84.7		0.200	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Manganese	0.0123		0.0030	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Sodium	31.4		1.0	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
Zinc	0.0630		0.0100	NR	mg/L	1.00	05/22/09 02:52	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	7980		2500	250	ug/L	5.00	06/01/09 15:15	NP	27533	6010B

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## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-06 (AP-MW-6B - Water)</b>							<b>Sampled: 05/19/09 12:24</b>		<b>Recvd: 05/19/09 15:50</b>	
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	260	D08	10	NR	mg/L	5.00	06/03/09 15:27	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:40	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:34	RLG	9E22019	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Iron	0.478		0.0500	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Magnesium	82.6		0.200	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Manganese	0.163		0.0030	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Sodium	57.0		1.0	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 04:23	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	5920		2500	250	ug/L	5.00	06/01/09 15:21	NP	27533	6010B

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## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-07 (AP-MW-7B - Water)</b>							<b>Sampled: 05/19/09 14:00</b>		<b>Recvd: 05/19/09 15:50</b>	
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	36		10	NR	mg/L	1.00	06/03/09 15:37	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:41	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 19:05	RLG	9E22019	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Chromium	0.0133		0.0040	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Iron	0.329		0.0500	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Magnesium	10.7		0.200	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Manganese	0.0582		0.0030	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Sodium	56.3		1.0	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 04:28	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	4690		2500	250	ug/L	5.00	06/01/09 15:26	NP	27533	6010B

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685  
Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-08 (AP-MW-8B - Water)</b>							<b>Sampled: 05/19/09 14:40</b>		<b>Recvd: 05/19/09 15:50</b>	
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	230	D08	10	NR	mg/L	5.00	06/08/09 17:36	TCH	9F09009	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:42	RMM	9E20033	350.1
Chromium, Hexavalent	144		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:43	RLG	9E22026	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Chromium	0.179		0.0040	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Iron	0.787		0.0500	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Magnesium	71.2		0.200	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Manganese	0.125		0.0030	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Selenium	0.0444		0.0150	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Sodium	84.0		1.0	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
Zinc	0.115		0.0100	NR	mg/L	1.00	05/22/09 04:33	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	7590		2500	250	ug/L	5.00	06/01/09 15:32	NP	27533	6010B

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Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-09 (AP-DUP-01 - Water)</b>							<b>Sampled: 05/19/09</b>		<b>Recvd: 05/19/09 15:50</b>	
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	320	D08	40	NR	mg/L	20.0	06/03/09 16:07	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:43	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:43	RLG	9E22026	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Iron	0.474		0.0500	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Magnesium	89.3		0.200	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Manganese	0.174		0.0030	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Sodium	61.1		1.0	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 04:38	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	6050		2500	250	ug/L	5.00	06/01/09 15:38	NP	27533	6010B

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Received: 05/19/09  
Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-10 (AP-SWB-01 - Water)</b>							<b>Sampled: 05/19/09 15:00</b>		<b>Recvd: 05/19/09 15:50</b>	
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	14		10	NR	mg/L	1.00	06/03/09 16:38	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:44	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:43	RLG	9E22026	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Iron	ND		0.0500	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Magnesium	3.53		0.200	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Manganese	ND		0.0030	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Sodium	8.4		1.0	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 04:43	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	ND		500	50.0	ug/L	1.00	06/01/09 16:43	NP	27533	6010B

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 Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-10RE1 (AP-SWB-01 - Water)</b>						<b>Sampled: 05/19/09 15:00</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	12		10	NR	mg/L	1.00	06/08/09 17:46	TCH	9F09009	300

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Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-11 (AP-RB-01 - Water)</b>						<b>Sampled: 05/19/09 15:10</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	15		10	NR	mg/L	1.00	06/03/09 16:48	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:47	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:43	RLG	9E22026	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Iron	ND		0.0500	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Magnesium	3.42		0.200	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Manganese	ND		0.0030	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Sodium	8.3		1.0	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 04:48	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	ND		500	50.0	ug/L	1.00	06/01/09 16:49	NP	27533	6010B

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Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-11RE1 (AP-RB-01 - Water)</b>					<b>Sampled: 05/19/09 15:10</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	11		10	NR	mg/L	1.00	06/08/09 17:57	TCH	9F09009	300

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Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-12 (AP-SS-01 - Water)</b>						<b>Sampled: 05/19/09 10:25</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	11		10	NR	mg/L	1.00	06/03/09 16:58	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:48	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	06/02/09 12:45	JMM	9E28064	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Iron	<b>0.0975</b>		0.0500	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Magnesium	<b>1.37</b>		0.200	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Manganese	<b>0.0055</b>		0.0030	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Sodium	<b>65.1</b>		1.0	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 04:53	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	<b>832</b>		500	50.0	ug/L	1.00	06/01/09 16:55	NP	27533	6010B

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Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-13 (AP-SS-02 - Water)</b>						<b>Sampled: 05/19/09 11:20</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	15		10	NR	mg/L	1.00	06/03/09 17:08	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:49	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:43	RLG	9E22026	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Iron	ND		0.0500	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Magnesium	4.95		0.200	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Manganese	ND		0.0030	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Sodium	63.6		1.0	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 04:58	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	1480		500	50.0	ug/L	1.00	06/01/09 16:14	NP	27533	6010B

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Reported: 06/10/09 15:02

## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-13RE1 (AP-SS-02 - Water)</b>					<b>Sampled: 05/19/09 11:20</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	12		10	NR	mg/L	1.00	06/08/09 18:07	TCH	9F09009	300

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## Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
<b>Sample ID: RSE0685-14 (AP-SS-03 - Water)</b>						<b>Sampled: 05/19/09 13:00</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>Anions by EPA Method 300.0</u></b>										
Sulfate	11		10	NR	mg/L	1.00	06/03/09 17:18	TCH	9F05015	300
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:50	RMM	9E20033	350.1
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 18:43	RLG	9E22026	420.4
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Cadmium	ND		0.0010	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Chromium	ND		0.0040	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Iron	ND		0.0500	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Lead	ND		0.0050	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Magnesium	1.24		0.200	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Manganese	0.0067		0.0030	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Selenium	ND		0.0150	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Sodium	65.1		1.0	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Thallium	ND		0.0200	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
Zinc	ND		0.0100	NR	mg/L	1.00	05/22/09 05:03	TWS	9E20059	200.7
<b><u>Metals (ICP)</u></b>										
Si	673		500	50.0	ug/L	1.00	06/01/09 16:20	NP	27533	6010B

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### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Anions by EPA Method 300.0									
300	9F05015	RSE0685-01	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-02	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-03	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-04	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-05	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-06	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-07	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-09	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-10	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-11	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-12	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-13	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F05015	RSE0685-14	5.00	mL	5.00	mL	06/03/09 14:16	BWM	Direct Injection - Anions
300	9F09009	RSE0685-02RE	5.00	mL	5.00	mL	06/08/09 17:06	BWM	Direct Injection - Anions
300	9F09009	RSE0685-08	5.00	mL	5.00	mL	06/08/09 17:06	BWM	Direct Injection - Anions
300	9F09009	RSE0685-10RE	5.00	mL	5.00	mL	06/08/09 17:06	BWM	Direct Injection - Anions
300	9F09009	RSE0685-11RE	5.00	mL	5.00	mL	06/08/09 17:06	BWM	Direct Injection - Anions
300	9F09009	RSE0685-13RE	5.00	mL	5.00	mL	06/08/09 17:06	BWM	Direct Injection - Anions
General Chemistry Parameters									
350.1	9E20032	RSE0685-01	5.00	mL	5.00	mL	05/20/09 09:09	RMM	Ammonia
350.1	9E20032	RSE0685-02	5.00	mL	5.00	mL	05/20/09 09:09	RMM	Ammonia
350.1	9E20032	RSE0685-03	5.00	mL	5.00	mL	05/20/09 09:09	RMM	Ammonia
350.1	9E20032	RSE0685-04	5.00	mL	5.00	mL	05/20/09 09:09	RMM	Ammonia
350.1	9E20033	RSE0685-05	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-06	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-07	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-08	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-09	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-10	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-11	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-12	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-13	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
350.1	9E20033	RSE0685-14	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
420.4	9E21099	RSE0685-01	50.00	mL	50.00	mL	05/21/09 17:04	MDM	TRP Distillation
420.4	9E28064	RSE0685-12	50.00	mL	50.00	mL	05/28/09 13:57	RJK	TRP Distillation
420.4	9E22019	RSE0685-02	50.00	mL	50.00	mL	05/22/09 10:07	RMM	TRP Distillation

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685

Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
420.4	9E22019	RSE0685-03	50.00	mL	50.00	mL	05/22/09 10:07	RMM	TRP Distillation
420.4	9E22019	RSE0685-04	50.00	mL	50.00	mL	05/22/09 10:07	RMM	TRP Distillation
420.4	9E22019	RSE0685-05	50.00	mL	50.00	mL	05/22/09 10:07	RMM	TRP Distillation
420.4	9E22019	RSE0685-06	50.00	mL	50.00	mL	05/22/09 10:07	RMM	TRP Distillation
420.4	9E22019	RSE0685-07	50.00	mL	50.00	mL	05/22/09 10:07	RMM	TRP Distillation
420.4	9E22026	RSE0685-08	50.00	mL	50.00	mL	05/22/09 10:47	RMM	TRP Distillation
420.4	9E22026	RSE0685-09	50.00	mL	50.00	mL	05/22/09 10:47	RMM	TRP Distillation
420.4	9E22026	RSE0685-10	50.00	mL	50.00	mL	05/22/09 10:47	RMM	TRP Distillation
420.4	9E22026	RSE0685-11	50.00	mL	50.00	mL	05/22/09 10:47	RMM	TRP Distillation
420.4	9E22026	RSE0685-13	50.00	mL	50.00	mL	05/22/09 10:47	RMM	TRP Distillation
420.4	9E22026	RSE0685-14	50.00	mL	50.00	mL	05/22/09 10:47	RMM	TRP Distillation
7196A	9E19120	RSE0685-01	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-02	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-03	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-04	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-05	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-06	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-07	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-08	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-09	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-10	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-11	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-12	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-13	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
7196A	9E19120	RSE0685-14	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
Total Metals by EPA 200 Series Methods									
200.7	9E20059	RSE0685-01	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-02	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-03	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-04	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-05	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-06	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-07	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-08	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-09	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-10	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-11	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A

TestAmerica Buffalo

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Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0685

Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
200.7	9E20059	RSE0685-12	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-13	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A
200.7	9E20059	RSE0685-14	50.00	mL	50.00	mL	05/21/09 09:30	MLD	3005A

Greenstar Environmental Solutions, LLC  
 6 Gellatly Drive  
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Project: Semi-Annual GW Monitoring  
 Project Number: GES

## LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<b><u>Anions by EPA Method 300.0</u></b>											
<b>Blank Analyzed: 06/03/09 (Lab Number:9F05015-BLK1, Batch: 9F05015)</b>											
Sulfate			2.0	NR	mg/L	ND					
<b>LCS Analyzed: 06/03/09 (Lab Number:9F05015-BS1, Batch: 9F05015)</b>											
Sulfate		20	2.0	NR	mg/L	21.0	105	90-110			
<b><u>Anions by EPA Method 300.0</u></b>											
<b>Blank Analyzed: 06/08/09 (Lab Number:9F09009-BLK1, Batch: 9F09009)</b>											
Sulfate			2.0	NR	mg/L	ND					
<b>LCS Analyzed: 06/08/09 (Lab Number:9F09009-BS1, Batch: 9F09009)</b>											
Sulfate		20	2.0	NR	mg/L	18.1	91	90-110			

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Reported: 06/10/09 15:02

## LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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### General Chemistry Parameters

#### Blank Analyzed: 05/19/09 (Lab Number:9E19120-BLK1, Batch: 9E19120)

Chromium, Hexavalent			10.0	NR	ug/L	ND					
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#### LCS Analyzed: 05/19/09 (Lab Number:9E19120-BS1, Batch: 9E19120)

Chromium, Hexavalent		50.0	10.0	NR	ug/L	51.5	103	85-115			
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### General Chemistry Parameters

#### Blank Analyzed: 05/20/09 (Lab Number:9E20032-BLK1, Batch: 9E20032)

Ammonia as N			0.020	NR	mg/L as N	ND					
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#### LCS Analyzed: 05/20/09 (Lab Number:9E20032-BS1, Batch: 9E20032)

Ammonia as N		0.750	0.020	NR	mg/L as N	0.736	98	90-110			
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#### Duplicate Analyzed: 05/20/09 (Lab Number:9E20032-DUP1, Batch: 9E20032)

QC Source Sample: RSE0685-04

Ammonia as N	0.0113		0.020	NR	mg/L as N	0.0180			46	20	R4
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#### Matrix Spike Analyzed: 05/20/09 (Lab Number:9E20032-MS1, Batch: 9E20032)

QC Source Sample: RSE0685-04

Ammonia as N	0.0113	0.200	0.020	NR	mg/L as N	0.204	96	54-150			
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### General Chemistry Parameters

#### Blank Analyzed: 05/20/09 (Lab Number:9E20033-BLK1, Batch: 9E20033)

Ammonia as N			9.20	NR	mg/L as N	ND					
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#### LCS Analyzed: 05/20/09 (Lab Number:9E20033-BS1, Batch: 9E20033)

Ammonia as N		0.750	0.020	NR	mg/L as N	0.744	99	90-110			
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### General Chemistry Parameters

#### Blank Analyzed: 05/22/09 (Lab Number:9E21099-BLK1, Batch: 9E21099)

Phenolics, Total Recoverable			10.0	NR	ug/L	ND					
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#### LCS Analyzed: 05/22/09 (Lab Number:9E21099-BS1, Batch: 9E21099)

Phenolics, Total Recoverable		115	10.0	NR	ug/L	116	101	75-125			
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#### Matrix Spike Analyzed: 05/22/09 (Lab Number:9E21099-MS1, Batch: 9E21099)

QC Source Sample: RSE0685-01

Phenolics, Total Recoverable	ND	100	10.0	NR	ug/L	99.9	100	60-143			
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### General Chemistry Parameters

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Greenstar Environmental Solutions, LLC  
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Wappinger Falls, NY 12590

Work Order: RSE0685  
Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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### General Chemistry Parameters

#### Blank Analyzed: 05/26/09 (Lab Number:9E22019-BLK1, Batch: 9E22019)

Phenolics, Total Recoverable			10.0	NR	ug/L	ND					
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#### LCS Analyzed: 05/26/09 (Lab Number:9E22019-BS1, Batch: 9E22019)

Phenolics, Total Recoverable		115	10.0	NR	ug/L	95.1	83	75-125			
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#### Duplicate Analyzed: 05/26/09 (Lab Number:9E22019-DUP1, Batch: 9E22019)

QC Source Sample: RSE0685-07

Phenolics, Total Recoverable	ND		10.0	NR	ug/L	ND				20	
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#### Matrix Spike Analyzed: 05/26/09 (Lab Number:9E22019-MS1, Batch: 9E22019)

QC Source Sample: RSE0685-07

Phenolics, Total Recoverable	ND	100	10.0	NR	ug/L	62.5	62	60-143			
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### General Chemistry Parameters

#### Blank Analyzed: 05/26/09 (Lab Number:9E22026-BLK1, Batch: 9E22026)

Phenolics, Total Recoverable			10.0	NR	ug/L	ND					
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#### LCS Analyzed: 05/26/09 (Lab Number:9E22026-BS1, Batch: 9E22026)

Phenolics, Total Recoverable		115	10.0	NR	ug/L	96.8	84	75-125			
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### General Chemistry Parameters

#### Blank Analyzed: 06/02/09 (Lab Number:9E28064-BLK1, Batch: 9E28064)

Phenolics, Total Recoverable			10.0	NR	ug/L	ND					
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#### LCS Analyzed: 06/02/09 (Lab Number:9E28064-BS1, Batch: 9E28064)

Phenolics, Total Recoverable		115	10.0	NR	ug/L	106	92	75-125			
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Wappinger Falls, NY 12590

Work Order: RSE0685  
Project: Semi-Annual GW Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/10/09 15:02

## LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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### Total Metals by EPA 200 Series Methods

#### Blank Analyzed: 05/22/09 (Lab Number:9E20059-BLK1, Batch: 9E20059)

Cadmium			0.0010	NR	mg/L	ND					
Chromium			0.0040	NR	mg/L	ND					
Iron			0.0500	NR	mg/L	ND					
Lead			0.0050	NR	mg/L	ND					
Magnesium			0.200	NR	mg/L	ND					
Manganese			0.0030	NR	mg/L	ND					
Selenium			0.0150	NR	mg/L	ND					
Sodium			1.0	NR	mg/L	ND					
Thallium			0.0200	NR	mg/L	ND					
Zinc			0.0100	NR	mg/L	ND					

#### LCS Analyzed: 05/22/09 (Lab Number:9E20059-BS1, Batch: 9E20059)

Cadmium	0.200	0.0010	NR	mg/L	0.201	101	85-115
Chromium	0.200	0.0040	NR	mg/L	0.207	104	85-115
Iron	10.0	0.0500	NR	mg/L	10.1	101	85-115
Lead	0.200	0.0050	NR	mg/L	0.201	101	85-115
Magnesium	10.0	0.200	NR	mg/L	10.2	102	85-115
Manganese	0.200	0.0030	NR	mg/L	0.200	100	85-115
Selenium	0.200	0.0150	NR	mg/L	0.196	98	85-115
Sodium	10.0	1.0	NR	mg/L	10.3	103	85-115
Thallium	0.200	0.0200	NR	mg/L	0.201	101	85-115
Zinc	0.200	0.0100	NR	mg/L	0.202	101	85-115

#### Matrix Spike Analyzed: 05/22/09 (Lab Number:9E20059-MS1, Batch: 9E20059)

QC Source Sample: RSE0685-03

Cadmium	0.000490	0.200	0.0010	NR	mg/L	0.205	102	70-130
Chromium	ND	0.200	0.0040	NR	mg/L	0.211	106	70-130
Iron	0.122	10.0	0.0500	NR	mg/L	10.5	103	70-130
Lead	ND	0.200	0.0050	NR	mg/L	0.204	102	70-130
Magnesium	7.88	10.0	0.200	NR	mg/L	18.1	102	70-130
Manganese	0.0126	0.200	0.0030	NR	mg/L	0.218	103	70-130
Selenium	ND	0.200	0.0150	NR	mg/L	0.204	102	70-130
Sodium	54.3	10.0	1.0	NR	mg/L	63.5	91	70-130
Thallium	ND	0.200	0.0200	NR	mg/L	0.207	104	70-130
Zinc	0.0184	0.200	0.0100	NR	mg/L	0.222	102	70-130

#### Matrix Spike Dup Analyzed: 05/22/09 (Lab Number:9E20059-MSD1, Batch: 9E20059)

QC Source Sample: RSE0685-03

Cadmium	0.000490	0.200	0.0010	NR	mg/L	0.206	103	70-130	0	20
Chromium	ND	0.200	0.0040	NR	mg/L	0.212	106	70-130	0	20

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Work Order: RSE0685

Received: 05/19/09  
 Reported: 06/10/09 15:02

Project: Semi-Annual GW Monitoring  
 Project Number: GES

## LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<b>Total Metals by EPA 200 Series Methods</b>											
<b>Matrix Spike Dup Analyzed: 05/22/09 (Lab Number:9E20059-MSD1, Batch: 9E20059)</b>											
QC Source Sample: RSE0685-03											
Iron	0.122	10.0	0.0500	NR	mg/L	10.5	103	70-130	0	20	
Lead	ND	0.200	0.0050	NR	mg/L	0.205	102	70-130	0	20	
Magnesium	7.88	10.0	0.200	NR	mg/L	18.0	101	70-130	1	20	
Manganese	0.0126	0.200	0.0030	NR	mg/L	0.218	103	70-130	0	20	
Selenium	ND	0.200	0.0150	NR	mg/L	0.205	102	70-130	1	20	
Sodium	54.3	10.0	1.0	NR	mg/L	62.3	80	70-130	2	20	
Thallium	ND	0.200	0.0200	NR	mg/L	0.200	100	70-130	3	20	
Zinc	0.0184	0.200	0.0100	NR	mg/L	0.221	101	70-130	0	20	

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Received: 05/19/09  
Reported: 06/10/09 15:02

## LABORATORY QC DATA

Analyte	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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**Blank Analyzed: 06/01/09 (Lab Number:220-27603-10, Batch: 27533)**

Si			500	50.0	ug/L	ND		-			
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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_  
 Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1/007)  
 Client: GREENSTAR ENG.  
 Address: 6 Gallyally Drive State: NY Zip Code: 12590  
 City: Wappingers Falls  
 Project Name and Location (State): AIRCO SEMI-ANNUAL GW MON: MAY-09 (NY)  
 Contract/Purchase Order/Quote No.: \_\_\_\_\_  
 Project Manager: Chip McLeod  
 Telephone Number (Area Code)/Fax Number: 845-223-9944/9955  
 Site Contact: JRK Lab Contact: \_\_\_\_\_  
 Carrier/Waybill Number: \_\_\_\_\_  
 Date: 05/19/09 Lab Number: \_\_\_\_\_  
 Chain of Custody Number: 111882 Page 1 of 2

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives				Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Soil	Water	Sludge	Other	Can	Box	Bag	Other				
AP-MW-1B	05/19/09	0855	X											
AP-MW-2B		0954												
AP-MW-3B		1035												
AP-MW-4B		1050												
AP-MW-5B		1130												
AP-MW-6B		1224												
AP-MW-7B		1400												
AP-MW-8B		1440												
AP-DUP-01		N/A												
AP-SWB-01		1500												
AP-RB-01		1510												
AP-SS-01		1025												

Possible Hazard Identification:  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Other \_\_\_\_\_  
 Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_  
 Sample Disposal:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)  
 OC Requirements (Specify): \_\_\_\_\_  
 1. Requisitioned By: [Signature] Date: 05/19/09 Time: 1550  
 2. Requisitioned By: [Signature] Date: 05/19/09 Time: 1550  
 3. Requisitioned By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Comments: \* CR+6 ANALYSIS - STORED HOLD # 3020  
 DISTRIBUTION: WHITE - Returned to Client with Report. CANNARY - Stays with the Sample. PINK - Field Copy



## ANALYTICAL REPORT

Job Number: 220-9110-1

Job Description: Airco Niagara Falls - RSE0685

For:

TestAmerica Laboratories, Inc.  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Attention: Mr. Jason Kacalski



Approved for release.  
Cheryl Cascella  
6/4/2009 11:51 AM

---

Designee for  
Johanna Dubauskas  
Project Manager I  
johanna.dubauskas@testamericainc.com  
06/04/2009

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Project Manager.

TestAmerica Connecticut Certifications and Approvals: CTDOH PH-047, MADEP CT023, RIDOH A43, NYDOH 10602, NY NELAP 10602, NHDES 2528, NJDEP CT410, ME DOH CT023, UT DOH 2032614458

**TestAmerica Laboratories, Inc.**

TestAmerica Connecticut 128 Long Hill Cross Road, Shelton, CT 06484  
Tel (203) 929-8140 Fax (203) 929-8142 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**220-J9110-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**Metals**

No analytical or quality issues were noted.

## METHOD SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix: Water</b>			
Metals (ICP)	TAL CT	SW846 6010B	
Preparation, Total Metals	TAL CT		SW846 3010A

### Lab References:

TAL CT = TestAmerica Connecticut

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID</b>
SW846 6010B	Petronchak, Nestor	NP

## SAMPLE SUMMARY

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
220-9110-1	RSE0685-01	Water	05/19/2009 0855	05/20/2009 0935
220-9110-2	RSE0685-02	Water	05/19/2009 0954	05/20/2009 0935
220-9110-3	RSE0685-03	Water	05/19/2009 1035	05/20/2009 0935
220-9110-4	RSE0685-04	Water	05/19/2009 1050	05/20/2009 0935
220-9110-5	RSE0685-05	Water	05/19/2009 1130	05/20/2009 0935
220-9110-6	RSE0685-06	Water	05/19/2009 1224	05/20/2009 0935
220-9110-7	RSE0685-07	Water	05/19/2009 1400	05/20/2009 0935
220-9110-8	RSE0685-08	Water	05/19/2009 1440	05/20/2009 0935
220-9110-9	RSE0685-09	Water	05/19/2009 0000	05/20/2009 0935
220-9110-10	RSE0685-10	Water	05/19/2009 1500	05/20/2009 0935
220-9110-11	RSE0685-11	Water	05/19/2009 1510	05/20/2009 0935
220-9110-12	RSE0685-12	Water	05/19/2009 1025	05/20/2009 0935
220-9110-13	RSE0685-13	Water	05/19/2009 1120	05/20/2009 0935
220-9110-14	RSE0685-14	Water	05/19/2009 1300	05/20/2009 0935

# **SAMPLE RESULTS**

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-01**

Lab Sample ID: 220-9110-1

Client Matrix: Water

Date Sampled: 05/19/2009 0855

Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1452  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	6770		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-02**

Lab Sample ID: 220-9110-2  
Client Matrix: Water

Date Sampled: 05/19/2009 0954  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1637  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	1120		50.0	500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-03**

Lab Sample ID: 220-9110-3  
Client Matrix: Water

Date Sampled: 05/19/2009 1035  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1503  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	6340		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-04**

Lab Sample ID: 220-9110-4  
Client Matrix: Water

Date Sampled: 05/19/2009 1050  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1509  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	8410		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-05**

Lab Sample ID: 220-9110-5  
Client Matrix: Water

Date Sampled: 05/19/2009 1130  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1515  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	7980		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-06**

Lab Sample ID: 220-9110-6  
Client Matrix: Water

Date Sampled: 05/19/2009 1224  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1521  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	5920		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-07**

Lab Sample ID: 220-9110-7  
Client Matrix: Water

Date Sampled: 05/19/2009 1400  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1526  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	4690		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-08**

Lab Sample ID: 220-9110-8  
Client Matrix: Water

Date Sampled: 05/19/2009 1440  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1532  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	7590		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-09**

Lab Sample ID: 220-9110-9  
Client Matrix: Water

Date Sampled: 05/19/2009 0000  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 5.0  
Date Analyzed: 06/01/2009 1538  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	6050		250	2500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-10**

Lab Sample ID: 220-9110-10  
Client Matrix: Water

Date Sampled: 05/19/2009 1500  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1643  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	500	U	50.0	500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-11**

Lab Sample ID: 220-9110-11  
Client Matrix: Water

Date Sampled: 05/19/2009 1510  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1649  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	500	U	50.0	500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-12**

Lab Sample ID: 220-9110-12  
Client Matrix: Water

Date Sampled: 05/19/2009 1025  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1655  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	832		50.0	500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-13**

Lab Sample ID: 220-9110-13  
Client Matrix: Water

Date Sampled: 05/19/2009 1120  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1614  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	1480		50.0	500

---

## Analytical Data

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Client Sample ID: RSE0685-14**

Lab Sample ID: 220-9110-14  
Client Matrix: Water

Date Sampled: 05/19/2009 1300  
Date Received: 05/20/2009 0935

---

### 6010B Metals (ICP)

Method: 6010B  
Preparation: 3010A  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1620  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533

Instrument ID: TJA Trace ICAP  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

---

Analyte	Result (ug/L)	Qualifier	MDL	RL
Si	673		50.0	500

---

## DATA REPORTING QUALIFIERS

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
Metals		
	U	Indicates analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

# QUALITY CONTROL RESULTS

## Quality Control Results

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 220-27533</b>					
LCS 220-27533/2-A	Lab Control Sample	T	Water	3010A	
MB 220-27533/1-A	Method Blank	T	Water	3010A	
220-9110-1	RSE0685-01	T	Water	3010A	
220-9110-2	RSE0685-02	T	Water	3010A	
220-9110-3	RSE0685-03	T	Water	3010A	
220-9110-4	RSE0685-04	T	Water	3010A	
220-9110-5	RSE0685-05	T	Water	3010A	
220-9110-6	RSE0685-06	T	Water	3010A	
220-9110-7	RSE0685-07	T	Water	3010A	
220-9110-8	RSE0685-08	T	Water	3010A	
220-9110-9	RSE0685-09	T	Water	3010A	
220-9110-10	RSE0685-10	T	Water	3010A	
220-9110-11	RSE0685-11	T	Water	3010A	
220-9110-12	RSE0685-12	T	Water	3010A	
220-9110-13	RSE0685-13	T	Water	3010A	
220-9110-14	RSE0685-14	T	Water	3010A	
220-9167-D-1-D DU	Duplicate	T	Water	3010A	
220-9167-D-1-E MS	Matrix Spike	T	Water	3010A	
<b>Analysis Batch:220-27603</b>					
LCS 220-27533/2-A	Lab Control Sample	T	Water	6010B	220-27533
MB 220-27533/1-A	Method Blank	T	Water	6010B	220-27533
220-9110-1	RSE0685-01	T	Water	6010B	220-27533
220-9110-2	RSE0685-02	T	Water	6010B	220-27533
220-9110-3	RSE0685-03	T	Water	6010B	220-27533
220-9110-4	RSE0685-04	T	Water	6010B	220-27533
220-9110-5	RSE0685-05	T	Water	6010B	220-27533
220-9110-6	RSE0685-06	T	Water	6010B	220-27533
220-9110-7	RSE0685-07	T	Water	6010B	220-27533
220-9110-8	RSE0685-08	T	Water	6010B	220-27533
220-9110-9	RSE0685-09	T	Water	6010B	220-27533
220-9110-10	RSE0685-10	T	Water	6010B	220-27533
220-9110-11	RSE0685-11	T	Water	6010B	220-27533
220-9110-12	RSE0685-12	T	Water	6010B	220-27533
220-9110-13	RSE0685-13	T	Water	6010B	220-27533
220-9110-14	RSE0685-14	T	Water	6010B	220-27533
220-9167-D-1-D DU	Duplicate	T	Water	6010B	220-27533
220-9167-D-1-E MS	Matrix Spike	T	Water	6010B	220-27533

**Report Basis**

T = Total

## Quality Control Results

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

### Method Blank - Batch: 220-27533

Lab Sample ID: MB 220-27533/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1343  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533  
Units: ug/L

### Method: 6010B Preparation: 3010A

Instrument ID: TJA Trace ICAP 61E2  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Si	500	U	50.0	500

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
---------	--------------------	--------------	--------	--------	-------	------

### Duplicate - Batch: 220-27533

Lab Sample ID: 220-9167-D-1-D DU  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 06/01/2009 1412  
Date Prepared: 05/29/2009 1051

Analysis Batch: 220-27603  
Prep Batch: 220-27533  
Units: ug/L

### Method: 6010B Preparation: 3010A

Instrument ID: TJA Trace ICAP 61E2  
Lab File ID: W060109  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Si	4990	5100	2	20	

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

# **MISCELLANEOUS DOCUMENTS**

SUBCONTRACT ORDER

9110

TestAmerica Buffalo

RSE0685

SENDING LABORATORY:

TestAmerica Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228  
Phone: 716-691-2600  
Fax: 716-691-7991  
Project Manager: Jason Kacalski

RECEIVING LABORATORY:

TestAmerica Connecticut  
128 Long Hill Cross Road  
Shelton, CT 06484  
Phone :(203) 944-1307  
Fax: -

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: RSE0685-01 <sup>①</sup>	Water	Sampled:05/19/09 08:55		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 08:55		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-02 <sup>②</sup>	Water	Sampled:05/19/09 09:54		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 09:54		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-03 <sup>③</sup>	Water	Sampled:05/19/09 10:35		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 10:35		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-04 <sup>④</sup>	Water	Sampled:05/19/09 10:50		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 10:50		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-05 <sup>⑤</sup>	Water	Sampled:05/19/09 11:30		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 11:30		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-06 <sup>⑥</sup>	Water	Sampled:05/19/09 12:24		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 12:24		NONE,
<i>Containers Supplied:</i>				

Released By  Date 5/19/09 1700 Received By  Date 5/20/09 935

17 200 passed rad Page 1 of 2

SUBCONTRACT ORDER

9110

TestAmerica Buffalo

RSE0685

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: RSE0685-07	Water	Sampled:05/19/09 14:00		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 14:00		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-08	Water	Sampled:05/19/09 14:40		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 14:40		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-09	Water	Sampled:05/19/09 00:00		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 00:00		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-10	Water	Sampled:05/19/09 15:00		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 15:00		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-11	Water	Sampled:05/19/09 15:10		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 15:10		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-12	Water	Sampled:05/19/09 10:25		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 10:25		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-13	Water	Sampled:05/19/09 11:20		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 11:20		NONE,
<i>Containers Supplied:</i>				
Sample ID: RSE0685-14	Water	Sampled:05/19/09 13:00		
SUB 6010B Tot - Silicon	06/03/09 12:00	11/15/09 13:00		NONE,
<i>Containers Supplied:</i>				

Released By: *[Signature]* Date: *5/19/09 1700* Received By: *[Signature]* Date: *5/20/09 935*

# ESTAMERICA CONNECTICUT RESERVATIVE RECORD

Job Number:  
Client:  
Client Project:

Lab Number	Preservative	pH	Adjustment (mLs)	pH after Adjustment	Preservative Lot Number	Initials	Date
9110-01	HNO3	6.2	WA	WA	WA	CB	5/20/09
02		6.2					
03		6.2					
04		6.2					
05		6.2					
06		6.2					
07		6.2					
08		6.2					
09		6.2					
10		6.2					
11		6.2					
12		6.2					
13		6.2					
14		6.2					

*Blank till 5/20/09*



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## TESTAMERICA CONNECTICUT - CHAIN OF CUSTODY ATOMIC SPECTROSCOPY DEPARTMENT

Job Number: 9110 Sample Numbers: 1-14

Prep Batch Number: 27533

WATER SOIL - SLUDGE - TCLP/SPLP

I confirm that I have performed the preparation below following SOP guidelines and authorize the transfer of these digestates to the metals instrument lab.:

Sample Prep:

[Signature]  
Analysts

5/29/09 ICP  
Date(s)

\_\_\_\_\_  
Analysts

\_\_\_\_\_  
Date(s) Mercury

I confirm that I have performed the analysis below following SOP guidelines:

Analysis:

[Signature]  
Analysts

6/3/09 ICP  
Date(s)

\_\_\_\_\_  
Chemist

\_\_\_\_\_  
Date(s) Mercury

I have reviewed and authorized the release of the job:

Complete:

[Signature]  
Supervisor

6/3/09  
Date

QAF02602.CT

# Login Sample Receipt Check List

Client: TestAmerica Laboratories, Inc.

Job Number: 220-9110-1

**Login Number: 9110**  
**Creator: Blocker, Kristina**  
**List Number: 1**

**List Source: TestAmerica Connecticut**

<b>Question</b>	<b>T / F / NA</b>	<b>Comment</b>
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	NOT ICED
Cooler Temperature is acceptable.	False	
Cooler Temperature is recorded.	True	17.2C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers 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	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## **Attachment E**

### **Landfill Cap Inspection Checklists March and June 2009**

**LANDFILL CAP INSPECTION CHECKLIST  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

Personnel: Bruce Vinal

Date: 1<sup>st</sup> Quarter Inspection (19 March 2009)

Weather: Sunny, 28 degrees

1. **Inspection of ground surface for exposure of geotextile cover (cap erosion):**  
None noted
2. **Inspection of ground surface for differential settlement resulting in soil cracking or ponded water:** Ponded Water was noted at access gate near Witmer Road and on the access road adjacent to the GCTS. It is recommended that crushed gravel be added and these two areas regarded to avoid additional degradation of the access roads.
3. **Identification of stressed vegetation:**  
Snow cover limits this inspection
4. **Identification of seeps, rooted vegetation (trees), and/or animal burrows:**  
None noted
5. **Identification of deteriorating equipment (i.e., monitoring wells, fencing, or drainage structures):**  
Monitoring wells still need to be painted safety blue
6. **Inspection of stormwater drainage swales for erosion, sloughing, or flow-through:**  
Snow cover somewhat limits this inspection however all look to be in good shape
7. **Inspection of east side of the landfill (Niagara Mohawk Power Corporation parcel) along the intermittent stream for the presence of erosion or sloughing:**  
None noted
8. **Inspection of access roads:**  
All access roads are in good shape with the exceptions noted in line 2

**LANDFILL CAP INSPECTION CHECKLIST  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

Personnel: Bruce Vinal - Greenstar Engineering, PC

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Date: 2<sup>nd</sup> Quarter Inspection (16 June 2009)

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Weather: Overcast, 65 degrees

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- 1. Inspection of ground surface for exposure of geotextile cover (cap erosion):**  
None noted.
- 2. Inspection of ground surface for differential settlement resulting in soil cracking or ponded water:** Ponded Water was noted at access gate near Witmer Road and on the access road adjacent to the GCTS. It is recommended that crushed gravel be added and these two areas regarded to avoid additional degradation of the access roads.
- 3. Identification of stressed vegetation:**  
Vegetation in the disturbed areas of the southwest corner are not doing well. This area should have topsoil added and be re-seeded
- 4. Identification of seeps, rooted vegetation (trees), and/or animal burrows:**  
Weeds have begun to grow up around the GCTS tanks and around the solar panels. Recommend placement of geo-textile and stone over this area to reduce/eliminate maintenance costs.
- 5. Identification of deteriorating equipment (i.e., monitoring wells, fencing, or drainage structures):**  
Wells need to be painted with safety blue paint. The concrete pad under the backup generator has begun to settle, met with service tech and Bob Broomfield about possible solutions
- 6. Inspection of stormwater drainage swales for erosion, sloughing, or flow-through:**  
Large amounts of algae has grown in the swale conveying the GCTS discharge. This growth does not appear to have any adverse effects but will be monitored. The swale in the southwest corner has an area about 50' long that has sloughed into the swale and needs to be repaired.
- 7. Inspection of east side of the landfill (Niagara Mohawk Power Corporation parcel) along the intermittent stream for the presence of erosion or sloughing:**  
None noted.
- 8. Inspection of access roads:**  
Roads are in good shape. Vegetation is taking over the roads, but no need to use herbicides. Roads are still usable. Roads will be mowed and scarified in October.

**Attachment F**

**Laboratory Analytical Results for  
GCTS Discharge Sampling  
March and May 2009**

## Analytical Report

Work Order: RSC0696

Project Description  
Airco - Niagara Falls

For:

Charles E. McLeod, Jr.

**Greenstar Environmental Solutions, LLC**

6 Gellatly Drive  
Wappinger Falls, NY 12590



---

Jason Kacalski

Project Manager

[jason.kacalski@testamericainc.com](mailto:jason.kacalski@testamericainc.com)

Wednesday, April 1, 2009

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception 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. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

## TestAmerica Buffalo Current Certifications

As of 1/27/2009

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>Arkansas</b>	CWA, RCRA, SOIL	88-0686
<b>California*</b>	NELAP CWA, RCRA	01169CA
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida*</b>	NELAP CWA, RCRA	E87672
<b>Georgia*</b>	SDWA, NELAP CWA, RCRA	956
<b>Illinois*</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas*</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana*</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY0044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	SDWA, CWA, RCRA	036-999-337
<b>New Hampshire*</b>	NELAP SDWA, CWA	233701
<b>New Jersey*</b>	NELAP, SDWA, CWA, RCRA,	NY455
<b>New York*</b>	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania*</b>	NELAP CWA, RCRA	68-00281
<b>Tennessee</b>	SDWA	02970
<b>Texas*</b>	NELAP CWA, RCRA	T10470441208-TX
<b>USDA</b>	FOREIGN SOIL PERMIT	S-41579
<b>USDOE</b>	Department of Energy	DOECAP-STB
<b>Virginia</b>	SDWA	278
<b>Washington*</b>	NELAP CWA, RCRA	C1677
<b>Wisconsin</b>	CWA, RCRA	998310390
<b>West Virginia</b>	CWA, RCRA	252

\*As required under the indicated accreditation, 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.

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSC0696

Project: Airco - Niagara Falls  
Project Number: NY5A9582

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Received: 03/19/09  
Reported: 04/01/09 14:19

### **Case Narrative**

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSC0696  
Project: Airco - Niagara Falls  
Project Number: NY5A9582

Received: 03/19/09  
Reported: 04/01/09 14:19

The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to the lab MDL. It must be noted that results reported below lab standard quantitation limits (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

<u>SpecificMethod</u>	<u>Analyte</u>	<u>Units</u>	<u>Client RL</u>	<u>Lab PQL</u>
2540C	Total Dissolved Solids	mg/L	4	10
420.4	Phenolics, Total Recoverable	ug/L	0.008	0.01

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSC0696

Project: Airco - Niagara Falls  
Project Number: NY5A9582

Received: 03/19/09  
Reported: 04/01/09 14:19

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## DATA QUALIFIERS AND DEFINITIONS

**D15** Sample weight / volume has been reduced to eliminate matrix interference. Reporting limits have been adjusted accordingly.  
**HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.  
**M8** The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

Greenstar Environmental Solutions, LLC  
 6 Gellatly Drive  
 Wappinger Falls, NY 12590

Work Order: RSC0696  
 Project: Airco - Niagara Falls  
 Project Number: NY5A9582

Received: 03/19/09  
 Reported: 04/01/09 14:19

## Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: RSC0696-01 (AP-EWE-01 - Water)</b>							<b>Sampled: 03/19/09 14:42</b>	<b>Recvd: 03/19/09 15:35</b>		
<b>General Chemistry Parameters</b>										
pH	7.8	HFT	0.1	NA	SU	1.00	03/19/09 20:29	JFR	9C19100	9040
Oxygen, Dissolved	10.4		7.00	NA	mg/L	1.00	03/19/09 22:35	RJK	9C19101	4500-O G
Nitrate	1.17		0.050	NA	mg/L as N	1.00	03/19/09 17:45	JFR	9C19094	353.2
Total Dissolved Solids	591		4.0	NA	mg/L	1.00	03/23/09 16:15	RJP	9C23072	2540C

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Wappinger Falls, NY 12590

Work Order: RSC0696

Project: Airco - Niagara Falls  
Project Number: NY5A9582

Received: 03/19/09  
Reported: 04/01/09 14:19

## Sample Summary

<b>SAMPLE IDENTIFICATION</b>	<b>LAB NUMBER</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
AP-EWE-01	RSC0696-01	Water	03/19/09 14:42	03/19/09 15:35
TRIP BLANK	RSC0696-02	Water	03/19/09	03/19/09 15:35

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Wappinger Falls, NY 12590

Work Order: RSC0696  
Project: Airco - Niagara Falls  
Project Number: NY5A9582

Received: 03/19/09  
Reported: 04/01/09 14:19

## Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: RSC0696-01 (AP-EWE-01 - Water)</b>						<b>Sampled: 03/19/09 14:42</b>		<b>Recvd: 03/19/09 15:35</b>		
<b>General Chemistry Parameters</b>										
Ammonia as N	ND		9.20	NA	mg/L as N	1.00	03/20/09 12:26	RMM	9C20016	350.1
Biochemical Oxygen Demand	ND		5.0	NA	mg/L	1.00	03/19/09 21:18	MDM	9C19092	5210B
Chromium, Hexavalent	ND		11.0	NA	ug/L	1.00	03/19/09 21:00	RLG	9C19090	7196A
Chemical Oxygen Demand	ND		40.0	NA	mg/L	1.00	03/23/09 13:25	MDM	9C23047	410.4
<b>pH</b>	<b>7.8</b>	HFT	0.1	NA	SU	1.00	03/19/09 20:29	JFR	9C19100	9040
<b>Oxygen, Dissolved</b>	<b>10.4</b>		7.00	NA	mg/L	1.00	03/19/09 22:35	RJK	9C19101	4500-O G
<b>Nitrate</b>	<b>1.17</b>		0.050	NA	mg/L as N	1.00	03/19/09 17:45	JFR	9C19094	353.2
Nitrite	ND		0.05	NA	mg/L as N	1.00	03/19/09 19:42	JFR	9C19095	353.2
Phenolics, Total Recoverable	ND		8.0	NA	ug/L	1.00	03/26/09 11:29	JMM	9C24017	420.4
<b>Total Dissolved Solids</b>	<b>591</b>		4.0	NA	mg/L	1.00	03/23/09 16:15	RJP	9C23072	2540C
Total Suspended Solids	ND		10.0	NA	mg/L	1.00	03/21/09 16:16	RJP	9C21012	2540D
Total Kjeldahl Nitrogen	ND		1.00	NA	mg/L as N	1.00	03/24/09 20:18	RLG	9C24011	351.2
<b>Total Metals by EPA 200 Series Methods</b>										
Barium	ND		2000	NA	ug/L	1.00	03/26/09 00:08	AH	9C23059	200.7
Chromium	ND		100	NA	ug/L	1.00	03/27/09 00:23	AH	9C23059	200.7
Copper	ND		14.7	NA	ug/L	1.00	03/26/09 00:08	AH	9C23059	200.7
Iron	ND		300	NA	ug/L	1.00	03/26/09 00:08	AH	9C23059	200.7
Nickel	ND		70.0	NA	ug/L	1.00	03/26/09 00:08	AH	9C23059	200.7
Zinc	ND		115	NA	ug/L	1.00	03/26/09 00:08	AH	9C23059	200.7
Selenium	ND		4.6	NA	ug/L	1.00	03/24/09 16:33	TWS	9C23065	200.8
Thallium	ND		4.0	NA	ug/L	1.00	03/24/09 16:33	TWS	9C23065	200.8
<b>Volatile Organic Compounds</b>										
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	03/20/09 20:31	TRB	9C20040	624
Trichloroethene	ND		5.0	0.60	ug/L	1.00	03/20/09 20:31	TRB	9C20040	624
<i>Surr: 1,2-Dichloroethane-d4 (88-132%)</i>	<i>110 %</i>						03/20/09 20:31	TRB	9C20040	624
<i>Surr: 4-Bromofluorobenzene (78-122%)</i>	<i>96 %</i>						03/20/09 20:31	TRB	9C20040	624
<i>Surr: Toluene-d8 (87-110%)</i>	<i>98 %</i>						03/20/09 20:31	TRB	9C20040	624

Greenstar Environmental Solutions, LLC  
 6 Gellatly Drive  
 Wappinger Falls, NY 12590

Work Order: RSC0696  
 Project: Airco - Niagara Falls  
 Project Number: NY5A9582

Received: 03/19/09  
 Reported: 04/01/09 14:19

## Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: RSC0696-02 (TRIP BLANK - Water)</b>						<b>Sampled: 03/19/09</b>		<b>Recvd: 03/19/09 15:35</b>		
<b><u>Volatile Organic Compounds</u></b>										
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	03/20/09 20:56	TRB	9C20040	624
Trichloroethene	ND		5.0	0.60	ug/L	1.00	03/20/09 20:56	TRB	9C20040	624
<i>Surr: 1,2-Dichloroethane-d4 (88-132%)</i>	<i>106 %</i>						03/20/09 20:56	TRB	9C20040	624
<i>Surr: 4-Bromofluorobenzene (78-122%)</i>	<i>96 %</i>						03/20/09 20:56	TRB	9C20040	624
<i>Surr: Toluene-d8 (87-110%)</i>	<i>97 %</i>						03/20/09 20:56	TRB	9C20040	624

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Project Number: NY5A9582

Received: 03/19/09  
Reported: 04/01/09 14:19

**SAMPLE EXTRACTION DATA**

Parameter	Batch	Lab Number	Wt/Vol Extracted	Units	Extract Volume	Units	Date	Analyst	Extraction Method
<b>General Chemistry Parameters</b>									
2540C	9C23072	RSC0696-01	100.00	mL	100.00	mL	03/23/09 16:15	KLD	No prep solids
2540D	9C21012	RSC0696-01	250.00	mL	250.00	mL	03/21/09 11:00	RJP	No prep solids
350.1	9C20016	RSC0696-01	5.00	mL	5.00	mL	03/20/09 07:37	RMM	Ammonia
351.2	9C24011	RSC0696-01	25.00	mL	25.00	mL	03/24/09 08:20	JMM	TKN Digestion
353.2	9C19095	RSC0696-01	5.00	mL	5.00	mL	03/19/09 16:44	JFR	Nitrate
353.2	9C19094	RSC0696-01	5.00	mL	5.00	mL	03/19/09 16:44	JFR	Nitrate
410.4	9C23047	RSC0696-01	2.00	mL	2.00	mL	03/23/09 13:25	MDM	Chemical Oxygen Demand
420.4	9C24017	RSC0696-01	50.00	mL	50.00	mL	03/24/09 07:56	RMM	TRP Distillation
4500-O G	9C19101	RSC0696-01	1.00	mL	1.00	mL	03/19/09 22:35	RJK	Direct
5210B	9C19092	RSC0696-01	300.00	mL	300.00	mL	03/19/09 21:18	RJK	Biochemical Oxygen Demand
7196A	9C19090	RSC0696-01	25.00	mL	25.00	mL	03/19/09 21:00	RLG	Hex Digestion
9040	9C19100	RSC0696-01	1.00	mL	1.00	mL	03/19/09 20:29	JFR	pH
<b>Total Metals by EPA 200 Series Methods</b>									
200.7	9C23059	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3005A
200.7	9C23059	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3005A
200.7	9C23059	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3005A
200.7	9C23059	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3005A
200.7	9C23059	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3005A
200.7	9C23059	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3005A
200.8	9C23065	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3020A
200.8	9C23065	RSC0696-01	50.00	mL	50.00	mL	03/24/09 08:30	DAN	3020A
<b>Volatile Organic Compounds</b>									
624	9C20040	RSC0696-01	5.00	mL	5.00	mL	03/20/09 12:47	TRB	5030B MS
624	9C20040	RSC0696-02	5.00	mL	5.00	mL	03/20/09 12:47	TRB	5030B MS

Greenstar Environmental Solutions, LLC  
 6 Gellatly Drive  
 Wappinger Falls, NY 12590

Work Order: RSC0696  
 Project: Airco - Niagara Falls  
 Project Number: NY5A9582

Received: 03/19/09  
 Reported: 04/01/09 14:19

## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/19/09 (9C19090-BLK1)</b>												
Chromium, Hexavalent	9C19090			10.0	NA	ug/L	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/19/09 (9C19090-BS1)</b>												
Chromium, Hexavalent	9C19090		50.0	10.0	NA	ug/L	50.3	101	85-115			

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 Wappinger Falls, NY 12590

Work Order: RSC0696  
 Project: Airco - Niagara Falls  
 Project Number: NY5A9582

Received: 03/19/09  
 Reported: 04/01/09 14:19

## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/19/09 (9C19092-BLK1)</b>												
Biochemical Oxygen Demand	9C19092			2.0	NA	mg/L	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/19/09 (9C19092-BS1)</b>												
Biochemical Oxygen Demand	9C19092		198	2.0	NA	mg/L	188	95	85-115			

Greenstar Environmental Solutions, LLC  
 6 Gellatly Drive  
 Wappinger Falls, NY 12590

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 Project: Airco - Niagara Falls  
 Project Number: NY5A9582

Received: 03/19/09  
 Reported: 04/01/09 14:19

## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/19/09 (9C19094-BLK1)</b>												
Nitrate	9C19094			0.050	NA	mg/L as N	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/19/09 (9C19094-BS1)</b>												
Nitrate	9C19094		1.50	0.050	NA	mg/L as N	1.55	104	90-110			

Greenstar Environmental Solutions, LLC  
 6 Gellatly Drive  
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Work Order: RSC0696  
 Project: Airco - Niagara Falls  
 Project Number: NY5A9582

Received: 03/19/09  
 Reported: 04/01/09 14:19

## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/19/09 (9C19095-BLK1)</b>												
Nitrite	9C19095			0.05	NA	mg/L as N	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/19/09 (9C19095-BS1)</b>												
Nitrite	9C19095		1.50	0.05	NA	mg/L as N	1.46	98	90-110			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/19/09 (9C19100-BS1)</b>												
pH	9C19100		7.00	N/A	NA	SU	7.02	100	99.3-100.8			

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**LABORATORY QC DATA**

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/20/09 (9C20016-BLK1)</b>												
Ammonia as N	9C20016			9.20	NA	mg/L as N	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/20/09 (9C20016-BS1)</b>												
Ammonia as N	9C20016		0.750	9.20	NA	mg/L as N	0.711	95	90-110			
<b>General Chemistry Parameters</b>												
<b>Duplicate Analyzed: 03/20/09 (9C20016-DUP1)</b>												
<b>QC Source Sample: RSC0696-01</b>												
Ammonia as N	9C20016	ND		9.20	NA	mg/L as N	ND				20	
<b>General Chemistry Parameters</b>												
<b>Matrix Spike Analyzed: 03/20/09 (9C20016-MS1)</b>												
<b>QC Source Sample: RSC0696-01</b>												
Ammonia as N	9C20016	ND	0.200	9.20	NA	mg/L as N	0.161	80	54-150			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b><u>Volatile Organic Compounds</u></b>												
<b>Blank Analyzed: 03/20/09 (9C20040-BLK1)</b>												
1,1-Dichloroethane	9C20040			5.0	0.59	ug/L	ND					
Trichloroethene	9C20040			5.0	0.60	ug/L	ND					
<i>Surrogate: 1,2-Dichloroethane-d4</i>						ug/L		104	88-132			
<i>Surrogate: 4-Bromofluorobenzene</i>						ug/L		99	78-122			
<i>Surrogate: Toluene-d8</i>						ug/L		97	87-110			
<b><u>Volatile Organic Compounds</u></b>												
<b>LCS Analyzed: 03/20/09 (9C20040-BS1)</b>												
1,1-Dichloroethane	9C20040		20	5.0	0.59	ug/L	21.5	107	72.5-127.5			
Trichloroethene	9C20040		20	5.0	0.60	ug/L	21.4	107	66.5-133.5			
<i>Surrogate: 1,2-Dichloroethane-d4</i>						ug/L		103	88-132			
<i>Surrogate: 4-Bromofluorobenzene</i>						ug/L		99	78-122			
<i>Surrogate: Toluene-d8</i>						ug/L		101	87-110			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/21/09 (9C21012-BLK1)</b>												
Total Suspended Solids	9C21012			4.0	NA	mg/L	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/21/09 (9C21012-BS1)</b>												
Total Suspended Solids	9C21012		891	4.0	NA	mg/L	842	95	88-110			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b><u>General Chemistry Parameters</u></b>												
<b>Blank Analyzed: 03/23/09 (9C23047-BLK1)</b>												
Chemical Oxygen Demand	9C23047			10.0	NA	mg/L	ND					
<b><u>General Chemistry Parameters</u></b>												
<b>LCS Analyzed: 03/23/09 (9C23047-BS1)</b>												
Chemical Oxygen Demand	9C23047		25.0	10.0	NA	mg/L	23.0	92	90-110			

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Reported: 04/01/09 14:19

**LABORATORY QC DATA**

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b><u>Total Metals by EPA 200 Series Methods</u></b>												
<b>Blank Analyzed: 03/25/09 (9C23059-BLK1)</b>												
Barium	9C23059			2.00	NA	ug/L	ND					
Chromium	9C23059			4.00	NA	ug/L	ND					
Copper	9C23059			10.0	NA	ug/L	ND					
Iron	9C23059			50.0	NA	ug/L	ND					
Nickel	9C23059			10.0	NA	ug/L	ND					
Zinc	9C23059			10.0	NA	ug/L	ND					
<b><u>Total Metals by EPA 200 Series Methods</u></b>												
<b>LCS Analyzed: 03/25/09 (9C23059-BS1)</b>												
Barium	9C23059		200	2.00	NA	ug/L	200	100	85-115			
Chromium	9C23059		200	4.00	NA	ug/L	212	106	85-115			
Copper	9C23059		200	10.0	NA	ug/L	202	101	85-115			
Iron	9C23059		10000	50.0	NA	ug/L	10200	102	85-115			
Nickel	9C23059		200	10.0	NA	ug/L	205	103	85-115			
Zinc	9C23059		200	10.0	NA	ug/L	205	103	85-115			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b><u>Total Metals by EPA 200 Series Methods</u></b>												
<b>Blank Analyzed: 03/24/09 (9C23065-BLK1)</b>												
Selenium	9C23065			1.0	NA	ug/L	ND					
Thallium	9C23065			0.2	NA	ug/L	ND					
<b><u>Total Metals by EPA 200 Series Methods</u></b>												
<b>LCS Analyzed: 03/24/09 (9C23065-BS1)</b>												
Selenium	9C23065		20.0	1.0	NA	ug/L	19.6	98	85-115			
Thallium	9C23065		20.0	0.2	NA	ug/L	20.6	103	85-115			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/23/09 (9C23072-BLK1)</b>												
Total Dissolved Solids	9C23072			4.0	NA	mg/L	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/23/09 (9C23072-BS1)</b>												
Total Dissolved Solids	9C23072		500	4.0	NA	mg/L	497	99				

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/24/09 (9C24011-BLK1)</b>												
Total Kjeldahl Nitrogen	9C24011			0.20	NA	mg/L as N	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/24/09 (9C24011-BS1)</b>												
Total Kjeldahl Nitrogen	9C24011		2.50	0.20	NA	mg/L as N	2.40	96	90-110			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifiers
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 03/26/09 (9C24017-BLK1)</b>												
Phenolics, Total Recoverable	9C24017			10.0	NA	ug/L	ND					
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 03/26/09 (9C24017-BS1)</b>												
Phenolics, Total Recoverable	9C24017		115	10.0	NA	ug/L	98.5	86	75-125			



## Analytical Report

Work Order: RSE0686

Project Description  
Quarterly Discharge Monitoring

For:

Charles E. McLeod, Jr.

**Greenstar Environmental Solutions, LLC**

6 Gellatly Drive

Wappinger Falls, NY 12590



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Jason Kacalski

Project Manager

[jason.kacalski@testamericainc.com](mailto:jason.kacalski@testamericainc.com)

Thursday, June 4, 2009

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception 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. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

## TestAmerica Buffalo Current Certifications

As of 1/27/2009

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>Arkansas</b>	CWA, RCRA, SOIL	88-0686
<b>California*</b>	NELAP CWA, RCRA	01169CA
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida*</b>	NELAP CWA, RCRA	E87672
<b>Georgia*</b>	SDWA, NELAP CWA, RCRA	956
<b>Illinois*</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas*</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana*</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY0044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	SDWA, CWA, RCRA	036-999-337
<b>New Hampshire*</b>	NELAP SDWA, CWA	233701
<b>New Jersey*</b>	NELAP, SDWA, CWA, RCRA,	NY455
<b>New York*</b>	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania*</b>	NELAP CWA, RCRA	68-00281
<b>Tennessee</b>	SDWA	02970
<b>Texas*</b>	NELAP CWA, RCRA	T104704412-08-TX
<b>USDA</b>	FOREIGN SOIL PERMIT	S-41579
<b>USDOE</b>	Department of Energy	DOECAP-STB
<b>Virginia</b>	SDWA	278
<b>Washington*</b>	NELAP CWA, RCRA	C1677
<b>Wisconsin</b>	CWA, RCRA	998310390
<b>West Virginia</b>	CWA, RCRA	252

\*As required under the indicated accreditation, 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.

Greenstar Environmental Solutions, LLC  
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Work Order: RSE0686

Project: Quarterly Discharge Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/04/09 14:21

## Case Narrative

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

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TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

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The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to the lab MDL. It must be noted that results reported below lab standard quantitation limits (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

<u>SpecificMethod</u>	<u>Analyte</u>	<u>Units</u>	<u>Client RL</u>	<u>Lab PQL</u>
2540C	Total Dissolved Solids	mg/L	4.0	10.0
420.4	Phenolics, Total Recoverable	ug/L	10.0	10.0

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## DATA QUALIFIERS AND DEFINITIONS

**HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.

Greenstar Environmental Solutions, LLC  
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Work Order: RSE0686  
 Project: Quarterly Discharge Monitoring  
 Project Number: GES

Received: 05/19/09  
 Reported: 06/04/09 14:21

## Executive Summary - Detections

Analyte	Sample Result	Data			Dilution		Date	Seq/			
		Qualifiers	Rpt Limit	MDL	Units	Factor	Analyzed	Analyst	Batch	Method	
<b>Sample ID: RSE0686-01 (AP-EWE-01 - Water)</b>							<b>Sampled: 05/19/09 10:30</b>		<b>Recvd: 05/19/09 15:50</b>		
<b>General Chemistry Parameters</b>											
pH	7.88	HFT	0.100	NR	SU	1.00	05/19/09 21:49	JME	9E19141	9040	
Oxygen, Dissolved	8.72		7.00	NR	mg/L	1.00	05/19/09 20:51	MDM	9E20002	4500-O G	
Nitrate	2.30		0.050	NR	mg/L as N	1.00	05/20/09 18:12	JFR	9E20118	353.2	
Total Dissolved Solids	657		4.0	NR	mg/L	1.00	05/20/09 21:55	MDM	9E20092	2540C	

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Reported: 06/04/09 14:21

## Sample Summary

<b>SAMPLE IDENTIFICATION</b>	<b>LAB NUMBER</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
AP-EWE-01	RSE0686-01	Water	05/19/09 10:30	05/19/09 15:50
trip blank	RSE0686-02	Water	05/19/09	05/19/09 15:50

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Work Order: RSE0686  
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Project Number: GES

Received: 05/19/09  
Reported: 06/04/09 14:21

## Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: RSE0686-01 (AP-EWE-01 - Water)</b>						<b>Sampled: 05/19/09 10:30</b>		<b>Recvd: 05/19/09 15:50</b>		
<b><u>General Chemistry Parameters</u></b>										
Ammonia as N	ND		9.20	NR	mg/L as N	1.00	05/20/09 11:51	RMM	9E20033	350.1
Biochemical Oxygen Demand	ND		5.0	NR	mg/L	1.00	05/19/09 17:13	JFR	9E20001	5210B
Chromium, Hexavalent	ND		11.0	NR	ug/L	1.00	05/19/09 22:05	MDM	9E19120	7196A
Chemical Oxygen Demand	ND		40.0	NR	mg/L	1.00	05/22/09 10:30	JMM	9E22049	410.4
pH	<b>7.88</b>	HFT	0.100	NR	SU	1.00	05/19/09 21:49	JME	9E19141	9040
Oxygen, Dissolved	<b>8.72</b>		7.00	NR	mg/L	1.00	05/19/09 20:51	MDM	9E20002	4500-O G
Nitrate	<b>2.30</b>		0.050	NR	mg/L as N	1.00	05/20/09 18:12	JFR	9E20118	353.2
Nitrite	ND		0.05	NR	mg/L as N	1.00	05/20/09 22:21	JFR	9E20117	353.2
Phenolics, Total Recoverable	ND		8.0	NR	ug/L	1.00	05/26/09 19:05	RLG	9E22026	420.4
Total Dissolved Solids	<b>657</b>		4.0	NR	mg/L	1.00	05/20/09 21:55	MDM	9E20092	2540C
Total Suspended Solids	ND		10.0	NR	mg/L	1.00	05/20/09 09:30	JMM	9E20018	2540D
Total Kjeldahl Nitrogen	ND		1.00	NR	mg/L as N	1.00	05/22/09 11:42	KLD	9E21082	351.2
<b><u>Total Metals by EPA 200 Series Methods</u></b>										
Barium	ND		2000	NR	ug/L	1.00	05/22/09 08:03	TWS	9E20057	200.7
Chromium	ND		100	NR	ug/L	1.00	05/22/09 08:03	TWS	9E20057	200.7
Copper	ND		14.7	NR	ug/L	1.00	05/22/09 08:03	TWS	9E20057	200.7
Iron	ND		300	NR	ug/L	1.00	05/22/09 08:03	TWS	9E20057	200.7
Nickel	ND		70.0	NR	ug/L	1.00	05/22/09 08:03	TWS	9E20057	200.7
Zinc	ND		115	NR	ug/L	1.00	05/22/09 08:03	TWS	9E20057	200.7
Selenium	ND		4.6	NR	ug/L	1.00	05/21/09 21:25	AMH	9E20066	200.8
Thallium	ND		4.0	NR	ug/L	1.00	05/21/09 21:25	AMH	9E20066	200.8
<b><u>Volatile Organic Compounds</u></b>										
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	05/23/09 00:30	TRB	9E22014	624
Trichloroethene	ND		5.0	0.60	ug/L	1.00	05/23/09 00:30	TRB	9E22014	624
<i>Surr: 1,2-Dichloroethane-d4 (88-132%)</i>	<i>106 %</i>						05/23/09 00:30	TRB	9E22014	624
<i>Surr: 4-Bromofluorobenzene (78-122%)</i>	<i>96 %</i>						05/23/09 00:30	TRB	9E22014	624
<i>Surr: Toluene-d8 (87-110%)</i>	<i>100 %</i>						05/23/09 00:30	TRB	9E22014	624

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Work Order: RSE0686  
 Project: Quarterly Discharge Monitoring  
 Project Number: GES

Received: 05/19/09  
 Reported: 06/04/09 14:21

## Analytical Report

Analyte	Sample Result	Data Qualifiers	Rpt Limit	MDL	Units	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: RSE0686-02 (trip blank - Water)</b>					<b>Sampled: 05/19/09</b>			<b>Recvd: 05/19/09 15:50</b>		
<b><u>Volatile Organic Compounds</u></b>										
1,1-Dichloroethane	ND		5.0	0.59	ug/L	1.00	05/23/09 00:56	TRB	9E22014	624
Trichloroethene	ND		5.0	0.60	ug/L	1.00	05/23/09 00:56	TRB	9E22014	624
<i>Surr: 1,2-Dichloroethane-d4 (88-132%)</i>	<i>110 %</i>						05/23/09 00:56	TRB	9E22014	624
<i>Surr: 4-Bromofluorobenzene (78-122%)</i>	<i>94 %</i>						05/23/09 00:56	TRB	9E22014	624
<i>Surr: Toluene-d8 (87-110%)</i>	<i>101 %</i>						05/23/09 00:56	TRB	9E22014	624

Greenstar Environmental Solutions, LLC  
6 Gellatly Drive  
Wappinger Falls, NY 12590

Work Order: RSE0686

Project: Quarterly Discharge Monitoring  
Project Number: GES

Received: 05/19/09  
Reported: 06/04/09 14:21

## SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Units	Extract Volume	Units	Date	Analyst	Extraction Method
<b>General Chemistry Parameters</b>									
2540C	9E20092	RSE0686-01	100.00	mL	100.00	mL	05/20/09 21:55	MDM	Solids
2540D	9E20018	RSE0686-01	250.00	mL	250.00	mL	05/20/09 09:30	JMM	No prep solids
350.1	9E20033	RSE0686-01	5.00	mL	5.00	mL	05/20/09 09:11	RMM	Ammonia
351.2	9E21082	RSE0686-01	25.00	mL	25.00	mL	05/21/09 14:31	RJP	TKN Digestion
353.2	9E20117	RSE0686-01	5.00	mL	5.00	mL	05/20/09 16:30	JFR	Nitrate
353.2	9E20118	RSE0686-01	5.00	mL	5.00	mL	05/20/09 16:30	JFR	Nitrate
410.4	9E22049	RSE0686-01	2.00	mL	2.00	mL	05/22/09 10:30	JMM	No prep Chemical Oxygen Demand
420.4	9E22026	RSE0686-01	50.00	mL	50.00	mL	05/22/09 10:47	RMM	TRP Distillation
4500-O G	9E20002	RSE0686-01	1.00	mL	1.00	mL	05/19/09 20:51	MDM	Direct
5210B	9E20001	RSE0686-01	300.00	mL	300.00	mL	05/19/09 17:13	MDM	Biochemical Oxygen Demand
7196A	9E19120	RSE0686-01	25.00	mL	25.00	mL	05/19/09 22:05	MDM	Hex Digestion
9040	9E19141	RSE0686-01	50.00	mL	50.00	mL	05/19/09 21:49	JME	No prep pH
<b>Total Metals by EPA 200 Series Methods</b>									
200.7	9E20057	RSE0686-01	50.00	mL	50.00	mL	05/21/09 09:00	MLD	3005A
200.8	9E20066	RSE0686-01	50.00	mL	50.00	mL	05/21/09 08:00	MLD	3020A
<b>Volatile Organic Compounds</b>									
624	9E22014	RSE0686-01	5.00	mL	5.00	mL	05/22/09 10:48	TRB	5030B MS
624	9E22014	RSE0686-02	5.00	mL	5.00	mL	05/22/09 10:48	TRB	5030B MS

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifier
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/19/09 (9E19120-BLK1)</b>												
Chromium, Hexavalent	9E19120			10.0	NR	ug/L	ND					
<b>LCS Analyzed: 05/19/09 (9E19120-BS1)</b>												
Chromium, Hexavalent	9E19120		50.0	10.0	NR	ug/L	51.5	103	85-115			
<b>Duplicate Analyzed: 05/19/09 (9E19120-DUP2)</b>												
<b>QC Source Sample: RSE0686-01</b>												
Chromium, Hexavalent	9E19120	ND		10.0	NR	ug/L	ND				20	
<b>Matrix Spike Analyzed: 05/19/09 (9E19120-MS2)</b>												
<b>QC Source Sample: RSE0686-01</b>												
Chromium, Hexavalent	9E19120	ND	50.0	10.0	NR	ug/L	51.5	103	75-120			
<b>General Chemistry Parameters</b>												
<b>LCS Analyzed: 05/19/09 (9E19141-BS1)</b>												
pH	9E19141		7.00	N/A	NR	SU	6.99	100	99.3-100.8			HFT
<b>Duplicate Analyzed: 05/19/09 (9E19141-DUP1)</b>												
<b>QC Source Sample: RSE0686-01</b>												
pH	9E19141	7.88		N/A	NR	SU	7.89			0		HFT
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/19/09 (9E20001-BLK1)</b>												
Biochemical Oxygen Demand	9E20001			2.0	NR	mg/L	ND					
<b>LCS Analyzed: 05/19/09 (9E20001-BS1)</b>												
Biochemical Oxygen Demand	9E20001		198	2.0	NR	mg/L	227	115	85-115			
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/20/09 (9E20018-BLK1)</b>												
Total Suspended Solids	9E20018			4.0	NR	mg/L	ND					
<b>LCS Analyzed: 05/20/09 (9E20018-BS1)</b>												
Total Suspended Solids	9E20018		761	4.0	NR	mg/L	713	94	88-110			
<b>Duplicate Analyzed: 05/20/09 (9E20018-DUP1)</b>												
<b>QC Source Sample: RSE0686-01</b>												
Total Suspended Solids	9E20018	ND		4.0	NR	mg/L	ND					
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/20/09 (9E20033-BLK1)</b>												
Ammonia as N	9E20033			9.20	NR	mg/L as N	ND					
<b>LCS Analyzed: 05/20/09 (9E20033-BS1)</b>												
Ammonia as N	9E20033		0.750	0.020	NR	mg/L as N	0.744	99	90-110			
<b>Duplicate Analyzed: 05/20/09 (9E20033-DUP1)</b>												
<b>QC Source Sample: RSE0686-01</b>												
Ammonia as N	9E20033	0.0111		0.020	NR	mg/L as N	ND				20	
<b>Matrix Spike Analyzed: 05/20/09 (9E20033-MS1)</b>												
<b>QC Source Sample: RSE0686-01</b>												

TestAmerica Buffalo

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifier
<b>General Chemistry Parameters</b>												
<b>Matrix Spike Analyzed: 05/20/09 (9E20033-MS1)</b>												
QC Source Sample: RSE0686-01												
Ammonia as N	9E20033	0.0111	0.200	0.020	NR	mg/L as N	0.193	91	54-150			
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/20/09 (9E20092-BLK1)</b>												
Total Dissolved Solids	9E20092			4.0	NR	mg/L	ND					
<b>LCS Analyzed: 05/20/09 (9E20092-BS1)</b>												
Total Dissolved Solids	9E20092		500	4.0	NR	mg/L	517	103				
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/20/09 (9E20117-BLK1)</b>												
Nitrite	9E20117			0.05	NR	mg/L as N	ND					
<b>LCS Analyzed: 05/20/09 (9E20117-BS1)</b>												
Nitrite	9E20117		1.50	0.05	NR	mg/L as N	1.43	96	90-110			
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/20/09 (9E20118-BLK1)</b>												
Nitrate	9E20118			0.050	NR	mg/L as N	ND					
<b>LCS Analyzed: 05/20/09 (9E20118-BS1)</b>												
Nitrate	9E20118		1.50	0.050	NR	mg/L as N	1.45	97	90-110			
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/22/09 (9E21082-BLK1)</b>												
Total Kjeldahl Nitrogen	9E21082			0.20	NR	mg/L as N	ND					
<b>LCS Analyzed: 05/22/09 (9E21082-BS1)</b>												
Total Kjeldahl Nitrogen	9E21082		2.50	0.20	NR	mg/L as N	2.32	93	90-110			
<b>Duplicate Analyzed: 05/22/09 (9E21082-DUP1)</b>												
QC Source Sample: RSE0686-01												
Total Kjeldahl Nitrogen	9E21082	0.347		0.20	NR	mg/L as N	0.333			4	20	
<b>Matrix Spike Analyzed: 05/22/09 (9E21082-MS1)</b>												
QC Source Sample: RSE0686-01												
Total Kjeldahl Nitrogen	9E21082	0.347	1.00	0.20	NR	mg/L as N	1.35	100	72-127			
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/26/09 (9E22026-BLK1)</b>												
Phenolics, Total Recoverable	9E22026			10.0	NR	ug/L	ND					
<b>LCS Analyzed: 05/26/09 (9E22026-BS1)</b>												
Phenolics, Total Recoverable	9E22026		115	10.0	NR	ug/L	96.8	84	75-125			
<b>General Chemistry Parameters</b>												
<b>Blank Analyzed: 05/22/09 (9E22049-BLK1)</b>												
Chemical Oxygen Demand	9E22049			10.0	NR	mg/L	ND					

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD RPD Limit	RPD Qualifier
<b>General Chemistry Parameters</b>											
<b>LCS Analyzed: 05/22/09 (9E22049-BS1)</b>											
Chemical Oxygen Demand	9E22049		50.0	20.0	NR	mg/L	53.8	108	90-110		

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifier
<b><u>Total Metals by EPA 200 Series Methods</u></b>												
<b>Blank Analyzed: 05/22/09 (9E20057-BLK1)</b>												
Barium	9E20057			2.00	NR	ug/L	ND					
Chromium	9E20057			4.00	NR	ug/L	ND					
Copper	9E20057			10.0	NR	ug/L	ND					
Iron	9E20057			50.0	NR	ug/L	ND					
Nickel	9E20057			10.0	NR	ug/L	ND					
Zinc	9E20057			10.0	NR	ug/L	ND					
<b>LCS Analyzed: 05/22/09 (9E20057-BS1)</b>												
Barium	9E20057		200	2.00	NR	ug/L	209	105	85-115			
Chromium	9E20057		200	4.00	NR	ug/L	212	106	85-115			
Copper	9E20057		200	10.0	NR	ug/L	200	100	85-115			
Iron	9E20057		10000	50.0	NR	ug/L	10300	103	85-115			
Nickel	9E20057		200	10.0	NR	ug/L	205	102	85-115			
Zinc	9E20057		200	10.0	NR	ug/L	205	102	85-115			
<b><u>Total Metals by EPA 200 Series Methods</u></b>												
<b>Blank Analyzed: 05/21/09 (9E20066-BLK1)</b>												
Selenium	9E20066			1.0	NR	ug/L	ND					
Thallium	9E20066			0.2	NR	ug/L	ND					
<b>LCS Analyzed: 05/21/09 (9E20066-BS1)</b>												
Selenium	9E20066		20.0	1.0	NR	ug/L	19.4	97	85-115			
Thallium	9E20066		20.0	0.2	NR	ug/L	22.1	111	85-115			

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## LABORATORY QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	MRL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Qualifier
<b><u>Volatile Organic Compounds</u></b>												
<b>Blank Analyzed: 05/22/09 (9E22014-BLK1)</b>												
1,1-Dichloroethane	9E22014			5.0	0.59	ug/L	ND					
Trichloroethene	9E22014			5.0	0.60	ug/L	ND					
<i>Surrogate: 1,2-Dichloroethane-d4</i>						ug/L		103	88-132			
<i>Surrogate: 4-Bromofluorobenzene</i>						ug/L		97	78-122			
<i>Surrogate: Toluene-d8</i>						ug/L		99	87-110			
<b>LCS Analyzed: 05/22/09 (9E22014-BS1)</b>												
1,1-Dichloroethane	9E22014		20	5.0	0.59	ug/L	21.6	108	73-128			
Trichloroethene	9E22014		20	5.0	0.60	ug/L	21.0	105	67-134			
<i>Surrogate: 1,2-Dichloroethane-d4</i>						ug/L		100	88-132			
<i>Surrogate: 4-Bromofluorobenzene</i>						ug/L		98	78-122			
<i>Surrogate: Toluene-d8</i>						ug/L		100	87-110			

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_  
 Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client <b>Greenstar Eng.</b>		Project Manager <b>Chip McLeod</b>		Date <b>05/19/09</b>		Chain of Custody Number <b>0993376</b>	
Address <b>G. Gellatly Drive</b>		Telephone Number (Area Code)/Fax Number <b>845-223-9944/9955</b>		Lab Number		Page <b>1</b> of <b>1</b>	
City <b>Wappingers Falls, NY</b>		State <b>NY</b>		Zip Code <b>12590</b>		Analysis (Attach list if more space is needed)	
Project Name and Location (State) <b>AIRCO - QUARTERLY DISCHARGE (NY)</b>		Site Contact <b>JRK</b>		Lab Contact		Special Instructions/ Conditions of Receipt	
Contract/Purchase Order/Quote No.		Carrier/Waybill Number <b>MAY</b>		Lab Contact			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/ Conditions of Receipt				
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc NaOH					
AP-EWE-01	05/19/09	1030	X					4	2	1					X	CR+6 WP	
TRIP BLANK	05/08/09	N/A	X													X	D.O./PH
																X	T.D.S./T.S.S.
																X	BOD
																X	NITRATE
																X	CD
																X	AMMONIA
																X	TKL
																X	PPVDS
																X	200.8
																X	dme

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Turn Around Time Required  
 24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

Sample Disposal  
 Disposal By Lab  Return To Client  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify)

1. Relinquished By <i>S. Quinn</i>	Date <b>05/19/08</b>	Time <b>1530</b>
2. Relinquished By	Date	Time
3. Relinquished By	Date	Time

1. Received By <i>Stiglos</i>	Date <b>05/19/08</b>	Time <b>1530</b>
2. Received By	Date	Time
3. Received By	Date	Time

Comments  
**CR+6 ANALYSIS - SHORT HOLD**

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Slays with the Sample; PINK - Field Copy

## **Attachment G**

### **Monthly Operation and Maintenance Details January – June 2009**

## 1. INTRODUCTION

This report presents a summary of the ongoing operation and maintenance activities for the Airco Parcel site from 1 January to 30 June 2009. It includes a summary of ongoing operations, system repairs, corrective actions, improvements, and an evaluation of the groundwater collection and treatment system (GCTS) performance.

## 2. ROUTINE OPERATION AND MAINTENANCE

The 21,600 gallons per day (gpd) discharge limit was exceeded during the reporting period. The number of days per month the limit was exceeded was as follows: January (24), February (14), March (12), April (30), and May (31). These exceedances were due to excessive influent flow into T1. The influent flow rate at T1 is routinely adjusted to prevent excess flow into the treatment system. Although the system can be programmed to automatically adjust the influent control valve to maintain a certain flow rate, it results in significant and constant actuation of the valve as it "Hunts and Pecks" to maintain the desired flow rate. Therefore, it is recommended that the effluent discharge rate be raised from 21,600 gpd to 28,800 gpd, or an average flow rate of 20 gpm. During this report period, the overall system average flow rate was 16.2 gallons per minute (gpm).

Table 2 of the Bi-Annual 2009 Monitoring Event Letter Report provides a summary of the quarterly effluent analytical data from the March and May 2009 sampling events. Routine operation and maintenance was completed throughout the monitoring period. Field tasks included system checks, data collection, and field analysis of treatment water at various stages of the treatment process, transducer cleanings, and general site maintenance.

## 3. SYSTEM OPERATIONS AND EFFICIENCY

During this monitoring period, 4,208,376 gal of groundwater were treated and discharged to the stormwater swale adjacent to the engineered wetlands. The system average flow rate was 16.2 gpm during the reporting period, with no influence observed due to heavy rain events. The treatment system was operational for 100 percent of the reporting period. The emergency overflow pond (T8) was utilized at various points during the reporting period during routine system maintenance and cleaning activities, and six times due to high levels in T-8. No releases to the environment occurred during the reporting period.

The completed System Monitoring Checklists are provided in Attachment G.1. Monthly GCTS flow calculations are provided in Attachment G.2. During the reporting period, an estimated 3.7 pounds (lb) of total chromium was treated by the GCTS, of which an estimated 2.4 lb was hexavalent chromium. These values are based on the total gallons treated and the average influent and effluent concentrations observed from the bi-weekly field sampling.

### 3.1 SYNOPSIS OF THE BI-ANNUAL ACTIVITIES

#### *January 2009*

The system was operational for all 31 days in January. No alarm conditions were reported. No scheduled or unscheduled shut downs or system bypasses occurred. The following details the activities which were performed during January.

- 14 January 2009 – Routine site visit. Cleaned and calibrated pH probes in T3B and T6B. Opened air valve on aerator in T6A to limit load on blower to prevent blower from tripping the thermal overload protection.
- 27 January 2009 – Routine site visit. Adjusting valve aperture has prevented the aeration blower from tripping the thermal overload. Cleaned and calibrated the pH probes in T3B and T6B. Snow and ice prevented collection of SW corner samples.

#### *February 2009*

The system was operational for all 28 days in February. Alarm conditions were reported four times during February. The alarm conditions were due to high water levels in T-8. No unscheduled shut downs occurred. The following details the activities which were performed during February.

- 7 February 2009 – Remote monitoring response to high level in T-8. Pumped T8 down to acceptable limits.
- 11 February 2009 – Remote monitoring response to high level in T-8. Pumped T8 down to acceptable limits.
- 17 February 2009 – Routine site visit. Calibrated pH probes in T3 and T6. Water observed entering T1 shed through electrical conduit. Removed ice/water from trough box. The water was found to be entering from in ground splice box east of T1 4-inch PVC line which was full of ice. No inherent hazard. This will be addressed in warmer weather.
- 24 February 2009 – Routine site visit. Found pump P1B to be leaking heavily from shaft seals. Removed pump, rebuilt seal assembly and re-installed pump. Ordered seal kit #1640-167-96 & 2 replacement shaft sleeves #1472-000-00. Calibrated T3 and T6 pH probes. Took inventory of shelf stock.
- 27 February 2009 – Remote monitoring response to high level in T-8. Pumped T8 down to acceptable limits.
- 28 February 2009 – Remote monitoring response to high level in T-8. Pumped T8 down to acceptable limits.

### ***March 2009***

The system was operational for all 31 days in March. Alarm conditions were reported once during March. The alarm condition was due to high water levels in T-8. No unscheduled shut downs occurred. The following details the activities which were performed during March.

- 3 March 2009 – Routine site visit. Replaced P1B. Jet line from T3/6A to T3 to increase T1 pump performance. Diagnose pH probe issues as a faulty cable in T6. Ordered new cable. P8 discharge line found to be frozen. Thawed P8 line. Calibrated pH field meter. Replaced computer work group switch, need new modem. The existing one is functioning, but the exterior case was damaged due to high heat in shed caused but malfunctioning thermocouple.
- 7 March 2009 – Remote monitoring response to high level in T-6B caused by pumping from T-8 due to elevated water level. Manually operated pumps to obtain water levels within acceptable limits.
- 19 March 2009 – Routine site visit. Pumped water from under T-8 liner. Hosed down T8 slopes. Quarterly GCTS Sampling was performed. Completed engineer's inspection. Replaced defective internet router. Pulled 3-inch tree from T7 slope. Noted high groundwater around T-1. Water noted entering overflow catch basin and T-1. T-1 pumps were ramped up to 100% for half an hour to drop levels and reset at 15% (18-20 GPM) to maintain acceptable levels. Installed updates to computer.

### ***April 2009***

The system was operational for 30 days in April. No alarm conditions were reported. No scheduled or unscheduled shut downs or system bypasses occurred. The following details the activities which were performed to during April.

- 7 April 2009 – Routine site visit. Replaced pH probe and cable to T-6. Calibrated pH probes in T-3, T-6, and T-7. Raised T-5 manhole cover 3 inches to avoid stones entering T-5 which were jamming the effluent check valve. Replaced padlocks on monitoring wells. Existing locks could not be opened and required replacement.
- 27 April 2009 – Routine site visit. Install new SCADA computer. Take GCTS effluent sample to lab to confirm/deny high chromium levels. Lab data indicated no hexavalent chromium in the effluent.

### ***May 2009***

The system was operational for 31 days in May. No alarm conditions were reported. No scheduled or unscheduled shut downs or system bypasses occurred. The following details the activities which were performed during May.

- 5 May 2009 – Routine site visit. Cut grass around T7. Replaced P6. Contractor onsite to jet line between T6 and T7. Pump water from T-3/6A vault.

- 18 May 2009 – Routine site visit. Cut grass around T7. Pumped water from under T8 liner. Calibrated pH probes in T7 and T3. Placed boulders around front gate to keep ATV's out. Groundwater sampling and GCTS sampling. Noticed pad under backup generator has settled and is now ½" per 1' out of level.

### ***June 2009***

The system was operational for 30 days in June. Alarm conditions were reported once during June. The alarm condition was due to high water levels in T-8. No unscheduled shut downs occurred. The following details the activities which were performed during June.

- 16 June 2009 – Routine site visit. Cut grass around T-7. Site walk with local contractor to go over repairs needed to obtain pricing. Pump groundwater from under T-8 liner.
- 25 June 2009 – Remote monitoring response to high level in T-8. Pumped T8 down to acceptable levels.
- 30 June 2009 - Calibrated pH probes and cleaned pressure transducer in T-3. Cut grass around T-7 and removed Cattails from T-7 outlet. Block up floor system in T-1 shed to keep out rodents. Repair pressure transmitter cable chewed by rodents. Called local contractor to set have-a- heart traps.

## **4. MODIFICATIONS/IMPROVEMENTS AND RECOMMENDATIONS**

### **4.1 SYSTEM MODIFICATION/IMPROVEMENTS**

One modification to the GCTS was performed during the report period. A new SCADA computer and upgraded software was installed to replace the existing computer system. In addition, routine operations and maintenance activities were performed, including repairs to pumps, VFDs, pH probes, etc.

## **5. PROJECTED OPERATION AND MAINTENANCE**

### **5.1 JULY – DECEMBER 2009**

During the second bi-annual report period of 2009, Greenstar anticipates performing routine operation and maintenance activities and completion of the SCADA system upgrades. Routine activities during the second report period will include cleaning of tanks, lines, ponds and the engineered wetland.

## **6. SYSTEM MONITORING**

### **6.1 ENVIRONMENTAL SAMPLING**

Routine system sampling with field analysis will continue on a bi-monthly basis to ensure chromium removal efficiency is maintained and no short circuiting is occurring in the zero valence iron beds. Quarterly discharge samples are anticipated to be collected in August and October 2009 from the GCTS to monitor the New York State Department of Environmental Conservation discharge permit guidelines. The second bi-annual groundwater monitoring event for 2009 is anticipated to occur in August 2009.

## **Attachment G.1**

### **Airco Parcel Bi-Weekly System Monitoring Checklists January – June 2009**

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 1/14/09</b>	<b>Project No.: 1005</b>	<b>Greenstar Personnel: Chip Mcleod</b>
<b>Weather: Very cold, 7 Degrees, Snow</b>		
<i>READING</i>	<i>ITEM</i>	
234	Carbon Dioxide Storage Tank Pressure (220-235 psi)	
5,503	Carbon Dioxide Tank Liquid Level	
3.0	T1 Water Level	
AUTO/CYCLING	Pump P1A Running Status ON/OFF	
AUTO/CYCLING	Pump P1BA Running Status ON/OFF	
616.1	T3A Water Elevation	
6.4	T3B pH Reading	
614.5	T3B Water Level	
AUTO/CYCLING	Pump 3B Operational Status ON/OFF	
611.0	T5 Water Level	
AUTO/CYCLING	Pump 5 Operational Status ON/OFF	
616.1	T6A Water Elevation	
6.3	T6B pH	
613.9	T6B Water Level	
AUTO/CYCLING	Pump 6B Operational Status ON/OFF	
616.2	T7 Water Level Reading	
6.0	T7 pH	
2.7	T8 Water Elevation	
14,108,017	Flow Meter Reading	
15 GPM	Average System Flow	
14.4	Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>
0.064	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium
0.159	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium
ND	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium
0.034	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium
0.002	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium
0.013	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium
NS – Snow/Ice	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium
NS – Snow/Ice	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium
<i>pH READING</i>	<i>SAMPLE LOCATION</i>	
6.34	Calcium Settling Pond Effluent (T3)	
6.31	Iron Settling Pond Effluent (T6)	
6.48	Engineered Wetland Effluent (T7)	
NS – Snow was too deep to safely get to SW corner	Southwest Corner Effluent (SS-1)	
Notes: Cleaned and calibrated pH probes in T3B and T6B. Opened air valve on aerator in T6A to limit load on blower to prevent blower from tripping the thermal overload protection.		

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 1/27/09</b>		<b>Project No.: 1005</b>	<b>Greenstar Personnel: Chip McLeod</b>
<b>Weather: Cold, 10 Degrees, Sunny</b>			
<i>READING</i>		<i>ITEM</i>	
234		Carbon Dioxide Storage Tank Pressure (220-235 psi)	
11,006		Carbon Dioxide Tank Liquid Level	
3.2		T1 Water Level	
AUTO/CYCLING		Pump P1A Running Status ON/OFF	
AUTO/CYCLING		Pump P1BA Running Status ON/OFF	
616.1		T3A Water Elevation	
6.5		T3B pH Reading	
613.3		T3B Water Level	
AUTO/CYCLING		Pump 3B Operational Status ON/OFF	
613.0		T5 Water Level	
AUTO/CYCLING		Pump 5 Operational Status ON/OFF	
616.0		T6A Water Elevation	
6.3		T6B pH	
613.6		T6B Water Level	
AUTO/CYCLING		Pump 6B Operational Status ON/OFF	
616.3		T7 Water Level Reading	
6.0		T7 pH	
3.8		T8 Water Elevation	
14,423,451		Flow Meter Reading	
17		Average System Flow	
14.7		Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>	
0.099	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.123	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium	
ND	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.041	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium	
ND	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium	
0.031	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium	
NS – Ice/Snow	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium	
NS – Ice/Snow	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>		<i>SAMPLE LOCATION</i>	
6.37		Calcium Settling Pond Effluent (T3)	
6.29		Iron Settling Pond Effluent (T6)	
6.39		Engineered Wetland Effluent (T7)	
NS – Snow was too deep to safely get to SW corner		Southwest Corner Effluent (SS-1)	
Notes: Adjusting valve aperture has prevented the aeration blower from tripping the thermal overload. Cleaned and calibrated the pH probes in T3B and T6B. Snow and ice prevented collection of SW corner samples.			

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 2/17/09</b>		<b>Project No.: 1005</b>	<b>Greenstar Personnel: Bruce Vinal</b>
<b>Weather: Sun/30 degrees</b>			
<i>READING</i>		<i>ITEM</i>	
234		Carbon Dioxide Storage Tank Pressure (220-235 psi)	
11,951		Carbon Dioxide Tank Liquid Level	
3.3		T1 Water Level	
AUTO/CYCLING		Pump P1A Running Status ON/OFF	
AUTO/CYCLING		Pump P1BA Running Status ON/OFF	
616.1		T3A Water Elevation	
6.5		T3B pH Reading	
613.8		T3B Water Level	
AUTO/CYCLING		Pump 3B Operational Status ON/OFF	
612.9		T5 Water Level	
AUTO/CYCLING		Pump 5 Operational Status ON/OFF	
616.0		T6A Water Elevation	
6.4		T6B pH	
612.7		T6B Water Level	
AUTO/CYCLING		Pump 6B Operational Status ON/OFF	
616.3		T7 Water Level Reading	
6.1		T7 pH	
3.8		T8 Water Elevation	
14,885,574		Flow Meter Reading	
10 gpm		Average System Flow	
15.3		Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>	
0.014	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.064	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium	
0.007	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.019	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium	
0.005	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium	
0.017	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium	
0.008	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.012	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>		<i>SAMPLE LOCATION</i>	
6.43		Calcium Settling Pond Effluent (T3)	
6.22		Iron Settling Pond Effluent (T6)	
6.4		Engineered Wetland Effluent (T7)	
7.10		Southwest Corner Effluent (SS-1)	
Notes: Calibrated pH probes in T3 and T6. Water observed entering T1 shed through elec. Conduit. Removed ice/water from trough box. Water found to be entering from in ground splice box east of T1 4" PVC full of ice. No inherent hazard. This will be addressed in warmer weather.			

**GCTS DATA RECORDING SHEET**  
**AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 2/24/09</b>		<b>Project No.: 1005</b>	<b>Greenstar Personnel: Bruce Vinal</b>
<b>Weather: Sun/20 degrees</b>			
<i>READING</i>		<i>ITEM</i>	
234		Carbon Dioxide Storage Tank Pressure (220-235 psi)	
8,041		Carbon Dioxide Tank Liquid Level	
3.3		T1 Water Level	
AUTO/CYCLING		Pump P1A Running Status ON/OFF	
AUTO/CYCLING		Pump P1BA Running Status ON/OFF	
616.1		T3A Water Elevation	
5.2		T3B pH Reading	
614.5		T3B Water Level	
AUTO/CYCLING		Pump 3B Operational Status ON/OFF	
611.0		T5 Water Level	
AUTO/CYCLING		Pump 5 Operational Status ON/OFF	
616.0		T6A Water Elevation	
6.3		T6B pH	
613.7		T6B Water Level	
AUTO/CYCLING		Pump 6B Operational Status ON/OFF	
616.3		T7 Water Level Reading	
6.1		T7 pH	
3.9		T8 Water Elevation	
15,010,859		Flow Meter Reading	
12		Average System Flow	
15.4		Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>	
0.033	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.062	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium	
-0.018	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium	
-0.005	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium	
ND	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium	
ND	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium	
0.000	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.012	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>		<i>SAMPLE LOCATION</i>	
6.50		Calcium Settling Pond Effluent (T3)	
6.61		Iron Settling Pond Effluent (T6)	
6.71		Engineered Wetland Effluent (T7)	
7.12		Southwest Corner Effluent (SS-1)	
Notes: Found pump P1B to be leaking heavily from shaft seals. Removed pump, rebuilt seal assembly and re-installed pump. Ordered seal kit #1640-167-96 & 2 replacement shaft sleeves #1472-000-00. Calibrate T3 and T6 pH probes. Took inventory of shelf stock.			

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 3/3/09</b>		<b>Project No.: 1005</b>		<b>Greenstar Personnel: Bruce Vinal</b>	
<b>Weather: Clear-15 degrees</b>					
<i>READING</i>			<i>ITEM</i>		
234			Carbon Dioxide Storage Tank Pressure (220-235 psi)		
4238			Carbon Dioxide Tank Liquid Level		
3.1			T1 Water Level		
AUTO/CYCLING			Pump P1A Running Status ON/OFF		
AUTO/CYCLING			Pump P1BA Running Status ON/OFF		
616.2			T3A Water Elevation		
6.15			T3B pH Reading		
613.4			T3B Water Level		
AUTO/CYCLING			Pump 3B Operational Status ON/OFF		
611.9			T5 Water Level		
AUTO/CYCLING			Pump 5 Operational Status ON/OFF		
615.9			T6A Water Elevation		
6.31			T6B pH		
612.3			T6B Water Level		
AUTO/CYCLING			Pump 6B Operational Status ON/OFF		
616.2			T7 Water Level Reading		
6.1			T7 pH		
2.5			T8 Water Elevation		
15,148,051			Flow Meter Reading		
14			Average System Flow		
15.6			Generator Run Hours		
<i>READING</i>		<i>Standard</i>		<i>LOCATION/PARAMETER</i>	
0.063		0.011 mg/L		Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.074		0.050 mg/L		Calcium Settling Pond Effluent (T3) Total Chromium	
-0.010		0.011 mg/L		Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.017		0.050 mg/L		Iron Settling Pond Effluent (T6) Total Chromium	
-0.011		0.011 mg/L		Engineered Wetland Effluent (T7) Hexavalent Chromium	
0.015		0.050 mg/L		Engineered Wetland Effluent (T7) Total Chromium	
0.008		0.011 mg/L		Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.027		0.050 mg/L		Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>			<i>SAMPLE LOCATION</i>		
6.16			Calcium Settling Pond Effluent (T3)		
6.49			Iron Settling Pond Effluent (T6)		
6.59			Engineered Wetland Effluent (T7)		
6.73			Southwest Corner Effluent (SS-1)		
Notes: Replace P1B. Jet line from T3/6A to T3 to increase T1 pump performance. Diagnose pH probe issues-faulty cable in T6 (on order. Thaw P8 line. Calibrate pH field meter. Replaced computer work group switch, need new modem. The existing one is functioning, but damaged exterior case to to high heat in shed.					

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 3/19/09</b>		<b>Project No.: 1005</b>		<b>Greenstar Personnel: Bruce Vinal</b>	
<b>Weather: overcast 35 degrees</b>					
<i>READING</i>			<i>ITEM</i>		
232			Carbon Dioxide Storage Tank Pressure (220-235 psi)		
11,434			Carbon Dioxide Tank Liquid Level		
2.5			T1 Water Level		
AUTO/CYCLING			Pump P1A Running Status ON/OFF		
AUTO/CYCLING			Pump P1BA Running Status ON/OFF		
616.1			T3A Water Elevation		
6.0			T3B pH Reading		
612.9			T3B Water Level		
AUTO/CYCLING			Pump 3B Operational Status ON/OFF		
611.8			T5 Water Level		
AUTO/CYCLING			Pump 5 Operational Status ON/OFF		
616.0			T6A Water Elevation		
N/A Sensor on order			T6B pH		
613.2			T6B Water Level		
AUTO/CYCLING			Pump 6B Operational Status ON/OFF		
616.3			T7 Water Level Reading		
6.1			T7 pH		
1.3			T8 Water Elevation		
15,404,170			Flow Meter Reading		
13			Average System Flow		
16.1			Generator Run Hours		
<i>READING</i>		<i>Standard</i>		<i>LOCATION/PARAMETER</i>	
0.008		0.011 mg/L		Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.152		0.050 mg/L		Calcium Settling Pond Effluent (T3) Total Chromium	
-0.014		0.011 mg/L		Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.003		0.050 mg/L		Iron Settling Pond Effluent (T6) Total Chromium	
-0.001		0.011 mg/L		Engineered Wetland Effluent (T7) Hexavalent Chromium	
ND		0.050 mg/L		Engineered Wetland Effluent (T7) Total Chromium	
0.018		0.011 mg/L		Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.012		0.050 mg/L		Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>			<i>SAMPLE LOCATION</i>		
6.33			Calcium Settling Pond Effluent (T3)		
6.44			Iron Settling Pond Effluent (T6)		
6.70			Engineered Wetland Effluent (T7)		
7.44			Southwest Corner Effluent (SS-1)		
Notes: Pumped water from under T-8 liner. Hosed down T8 slopes. Quarterly GCTS Sampling. Completed engineer's inspection. Replaced defectives internet router. Pulled 3" tree from T7 slope. Noted high groundwater around T-1. Water noted entering overflow catch basin and T-1. T-1 pumps were ramped up to 100% for half an hour to drop levels and are now set at 15% (18-20 GPM) to maintain acceptable levels. Installed updates to computer.					

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 4/7/09</b>		<b>Project No.: 1005</b>		<b>Greenstar Personnel: Bruce Vinal</b>	
<b>Weather: 27 degrees Snow</b>					
<i>READING</i>			<i>ITEM</i>		
234			Carbon Dioxide Storage Tank Pressure (220-235 psi)		
9,280			Carbon Dioxide Tank Liquid Level		
3.4			T1 Water Level		
AUTO/CYCLING			Pump P1A Running Status ON/OFF		
AUTO/CYCLING			Pump P1BA Running Status ON/OFF		
616.1			T3A Water Elevation		
6.2			T3B pH Reading		
614.1			T3B Water Level		
AUTO/CYCLING			Pump 3B Operational Status ON/OFF		
613.5			T5 Water Level		
AUTO/CYCLING			Pump 5 Operational Status ON/OFF		
616.0			T6A Water Elevation		
6.66			T6B pH		
613.1			T6B Water Level		
AUTO/CYCLING			Pump 6B Operational Status ON/OFF		
616.3			T7 Water Level Reading		
6.2			T7 pH		
2.6			T8 Water Elevation		
15,911,495			Flow Meter Reading		
18			Average System Flow		
16.5			Generator Run Hours		
<i>READING</i>		<i>Standard</i>		<i>LOCATION/PARAMETER</i>	
0.099		0.011 mg/L		Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.168		0.050 mg/L		Calcium Settling Pond Effluent (T3) Total Chromium	
-0.013		0.011 mg/L		Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.029		0.050 mg/L		Iron Settling Pond Effluent (T6) Total Chromium	
0.000		0.011 mg/L		Engineered Wetland Effluent (T7) Hexavalent Chromium	
0.010		0.050 mg/L		Engineered Wetland Effluent (T7) Total Chromium	
0.008		0.011 mg/L		Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.013		0.050 mg/L		Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>			<i>SAMPLE LOCATION</i>		
6.23			Calcium Settling Pond Effluent (T3)		
6.40			Iron Settling Pond Effluent (T6)		
6.69			Engineered Wetland Effluent (T7)		
7.37			Southwest Corner Effluent (SS-1)		
Notes: Replaced pH probe and cable to T-6. Calibrated pH probes in T-3, T-6, and T-7. Raised manhole cover to T-5 3" to avoid stones entering T-5 which was jamming the effluent check valve open. Replaced padlocks on monitoring wells. Existing locks could not be opened and required replacement.					

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 4/27/09</b>		<b>Project No.: 1005</b>	<b>Greenstar Personnel: Bruce Vinal</b>
<b>Weather: 60 degrees overcast</b>			
<i>READING</i>		<i>ITEM</i>	
228		Carbon Dioxide Storage Tank Pressure (220-235 psi)	
5,577		Carbon Dioxide Tank Liquid Level	
2.4		T1 Water Level	
AUTO/CYCLING		Pump P1A Running Status ON/OFF	
AUTO/CYCLING		Pump P1BA Running Status ON/OFF	
616.1		T3A Water Elevation	
6.51		T3B pH Reading	
613.3		T3B Water Level	
AUTO/CYCLING		Pump 3B Operational Status ON/OFF	
613.1		T5 Water Level	
AUTO/CYCLING		Pump 5 Operational Status ON/OFF	
616.0		T6A Water Elevation	
6.5		T6B pH	
613.8		T6B Water Level	
AUTO/CYCLING		Pump 6B Operational Status ON/OFF	
616.5		T7 Water Level Reading	
6.0		T7 pH	
2.9		T8 Water Elevation	
16,390,116		Flow Meter Reading	
17 gpm		Average System Flow	
17.0		Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>	
0.107	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.166	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium	
-0.009	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.032	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium	
-0.020 ND	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium	
-0.010 ND	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium	
0.023	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.023	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>		<i>SAMPLE LOCATION</i>	
6.57		Calcium Settling Pond Effluent (T3)	
6.55		Iron Settling Pond Effluent (T6)	
6.88		Engineered Wetland Effluent (T7)	
7.42		Southwest Corner Effluent (SS-1)	
Notes: O&M – Install new computer. Take GCTS effluent sample to lab to confirm/deny high chrome levels. Lab data indicated no hexavalent chromium in the effluent.			

**GCTS DATA RECORDING SHEET**

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 5/5/09</b>		<b>Project No.: 1005</b>	<b>Greenstar Personnel: Bruce Vinal</b>
<b>Weather: 65 degrees overcast</b>			
<i>READING</i>		<i>ITEM</i>	
230		Carbon Dioxide Storage Tank Pressure (220-235 psi)	
8,970		Carbon Dioxide Tank Liquid Level	
3.4		T1 Water Level	
AUTO/CYCLING		Pump P1A Running Status ON/OFF	
AUTO/CYCLING		Pump P1BA Running Status ON/OFF	
616.1		T3A Water Elevation	
6.3		T3B pH Reading	
613.8		T3B Water Level	
AUTO/CYCLING		Pump 3B Operational Status ON/OFF	
611.2		T5 Water Level	
AUTO/CYCLING		Pump 5 Operational Status ON/OFF	
616.0		T6A Water Elevation	
6.5		T6B pH	
614.8		T6B Water Level	
AUTO/CYCLING		Pump 6B Operational Status ON/OFF	
616.5		T7 Water Level Reading	
6.0		T7 pH	
2.7		T8 Water Elevation	
16,604,390		Flow Meter Reading	
15 gpm		Average System Flow	
17.2		Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>	
0.137	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.154	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium	
-0.005	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.048	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium	
-0.012	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium	
-0.009 ND	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium	
0.005	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.016	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>		<i>SAMPLE LOCATION</i>	
6.55		Calcium Settling Pond Effluent (T3)	
6.53		Iron Settling Pond Effluent (T6)	
6.76		Engineered Wetland Effluent (T7)	
7.32		Southwest Corner Effluent (SS-1)	
Notes: Cut grass around T7. Replaces P6. Contractor onsite to jet line between T6 and T7. Pump water from T-3/6A vault.			

**GCTS DATA RECORDING SHEET  
 AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 5/18/09</b>	<b>Project No.: 1005</b>	<b>Greenstar Personnel: Bruce Vinal</b>
<b>Weather: Sunny 60 degrees</b>		
<i>READING</i>	<i>ITEM</i>	
233	Carbon Dioxide Storage Tank Pressure (220-235 psi)	
8,690	Carbon Dioxide Tank Liquid Level	
2.7	T1 Water Level	
AUTO/CYCLING	Pump P1A Running Status ON/OFF	
AUTO/CYCLING	Pump P1BA Running Status ON/OFF	
616.2	T3A Water Elevation	
6.3	T3B pH Reading	
614.5	T3B Water Level	
AUTO/CYCLING	Pump 3B Operational Status ON/OFF	
613.3	T5 Water Level	
AUTO/CYCLING	Pump 5 Operational Status ON/OFF	
616.0	T6A Water Elevation	
6.5	T6B pH	
613.8	T6B Water Level	
AUTO/CYCLING	Pump 6B Operational Status ON/OFF	
616.5	T7 Water Level Reading	
6.0	T7 pH	
0.9	T8 Water Elevation	
16,954,786	Flow Meter Reading	
17gpm	Average System Flow	
17.5	Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>
0.055	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium
0.093	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium
-0.015	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium
0.036	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium
ND	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium
ND	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium
0.009	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium
0.014	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium
<i>pH READING</i>	<i>SAMPLE LOCATION</i>	
6.52	Calcium Settling Pond Effluent (T3)	
6.54	Iron Settling Pond Effluent (T6)	
6.84	Engineered Wetland Effluent (T7)	
7.34	Southwest Corner Effluent (SS-1)	
Notes: Cut grass around T7. Pumped water from under T8 liner. Calibrated pH probes in T7 and T3. Placed boulders around front gate to keep ATV's out. Groundwater sampling and GCTS sampling. Noticed pad under backup generator has settled and is now ½" per 1' out of level.		

**GCTS DATA RECORDING SHEET  
AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 6/16/09</b>		<b>Project No.: 1005</b>	<b>Greenstar Personnel: Bruce Vinal</b>
<b>Weather:</b>			
<i>READING</i>		<i>ITEM</i>	
232		Carbon Dioxide Storage Tank Pressure (220-235 psi)	
8764		Carbon Dioxide Tank Liquid Level	
3.5		T1 Water Level	
AUTO/CYCLING		Pump P1A Running Status ON/OFF	
AUTO/CYCLING		Pump P1BA Running Status ON/OFF	
616.2		T3A Water Elevation	
5.7		T3B pH Reading	
613.1		T3B Water Level	
AUTO/CYCLING		Pump 3B Operational Status ON/OFF	
613.4		T5 Water Level	
AUTO/CYCLING		Pump 5 Operational Status ON/OFF	
616.0		T6A Water Elevation	
6.5		T6B pH	
613.8		T6B Water Level	
AUTO/CYCLING		Pump 6B Operational Status ON/OFF	
616.7		T7 Water Level Reading	
6.2		T7 pH	
0.9		T8 Water Elevation	
17,631,314		Flow Meter Reading	
15		Average System Flow	
18.6		Generator Run Hours	
<i>READING</i>	<i>Standard</i>	<i>LOCATION/PARAMETER</i>	
0.106	0.011 mg/L	Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.149	0.050 mg/L	Calcium Settling Pond Effluent (T3) Total Chromium	
-0.013	0.011 mg/L	Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.051	0.050 mg/L	Iron Settling Pond Effluent (T6) Total Chromium	
ND	0.011 mg/L	Engineered Wetland Effluent (T7) Hexavalent Chromium	
0.007	0.050 mg/L	Engineered Wetland Effluent (T7) Total Chromium	
0.004	0.011 mg/L	Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.019	0.050 mg/L	Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>		<i>SAMPLE LOCATION</i>	
6.72		Calcium Settling Pond Effluent (T3)	
6.70		Iron Settling Pond Effluent (T6)	
6.86		Engineered Wetland Effluent (T7)	
7.59		Southwest Corner Effluent (SS-1)	
Notes: Cut grass around T-7. Site walk with local contractor to go over repairs needed to obtain pricing. Pump groundwater from under T-8 liner.			

**GCTS DATA RECORDING SHEET  
 AIRCO PARCEL, NIAGARA FALLS, NEW YORK**

<b>Date: 6/30/09</b>		<b>Project No.: 1005</b>		<b>Greenstar Personnel: Bruce Vinal</b>	
<b>Weather: Cloudy 65 degrees</b>					
<i>READING</i>			<i>ITEM</i>		
230			Carbon Dioxide Storage Tank Pressure (220-235 psi)		
9782			Carbon Dioxide Tank Liquid Level		
3.3			T1 Water Level		
AUTO/CYCLING			Pump P1A Running Status ON/OFF		
AUTO/CYCLING			Pump P1BA Running Status ON/OFF		
616.2			T3A Water Elevation		
5.8			T3B pH Reading		
614.0			T3B Water Level		
AUTO/CYCLING			Pump 3B Operational Status ON/OFF		
611.6			T5 Water Level		
AUTO/CYCLING			Pump 5 Operational Status ON/OFF		
616.0			T6A Water Elevation		
6.4			T6B pH		
613.0			T6B Water Level		
AUTO/CYCLING			Pump 6B Operational Status ON/OFF		
615.9			T7 Water Level Reading		
6.3			T7 pH		
0.9			T8 Water Elevation		
17,991,694			Flow Meter Reading		
18			Average System Flow		
18.9			Generator Run Hours		
<i>READING</i>		<i>Standard</i>		<i>LOCATION/PARAMETER</i>	
0.109		0.011 mg/L		Calcium Settling Pond Effluent (T3) Hexavalent Chromium	
0.113		0.050 mg/L		Calcium Settling Pond Effluent (T3) Total Chromium	
-0.012		0.011 mg/L		Iron Settling Pond Effluent (T6) Hexavalent Chromium	
0.049		0.050 mg/L		Iron Settling Pond Effluent (T6) Total Chromium	
0.000		0.011 mg/L		Engineered Wetland Effluent (T7) Hexavalent Chromium	
0.000		0.050 mg/L		Engineered Wetland Effluent (T7) Total Chromium	
0.010		0.011 mg/L		Southwest Corner Effluent (SS-1) Hexavalent Chromium	
0.024		0.050 mg/L		Southwest Corner Effluent (SS-1) Total Chromium	
<i>pH READING</i>			<i>SAMPLE LOCATION</i>		
6.30			Calcium Settling Pond Effluent (T3)		
6.56			Iron Settling Pond Effluent (T6)		
6.74			Engineered Wetland Effluent (T7)		
7.35			Southwest Corner Effluent (SS-1)		
Notes: Calibrated pH probes and cleaned pres. Trans in T-3. Cut grass around T-7 & removed Cattails from T-7 outlet. Block up floor system in T-1 shed to keep out rodents. Repair pres. Trans cable chewed by rodents. Called local contractor to set have-a- hart traps.					

## **Attachment G.2**

### **Airco Parcel GCTS Monthly Flow Calculations January – June 2009**

**Monthly Airco Parcel GCTS  
Flow Calculations  
January 2009**

<b>Date</b>	<b>Maximum Flow (gpm)</b>	<b>Average Flow Rate (gpm)</b>	<b>Total Daily Flow (Gal)</b>	<b>Total Gallons To Date (Gal)</b>	<b>Run Time (hours)</b>	<b>Run Time (minutes)</b>
1/1/2009	40	15	22,704	13,831,046	24	0
1/2/2009	40	15	23,008	13,854,054	24	0
1/3/2009	40	15	22,573	13,876,627	24	0
1/4/2009	40	15	22,716	13,899,343	24	0
1/5/2009	39	15	22,865	13,922,208	24	0
1/6/2009	39	15	22,887	13,945,095	24	0
1/7/2009	39	16	24,112	13,969,207	24	0
1/8/2009	39	16	23,841	13,993,048	24	0
1/9/2009	39	15	22,570	14,015,618	24	0
1/10/2009	39	13	19,939	14,035,557	24	0
1/11/2009	39	14	20,206	14,055,763	24	0
1/12/2009	38	13	20,139	14,075,902	24	0
1/13/2009	38	14	20,640	14,096,542	24	0
1/14/2009	38	15	21,926	14,118,468	24	0
1/15/2009	38	17	25,288	14,143,756	24	0
1/16/2009	38	17	25,190	14,168,946	24	0
1/17/2009	38	17	24,651	14,193,597	24	0
1/18/2009	38	17	24,609	14,218,206	24	0
1/19/2009	37	17	24,696	14,242,902	24	0
1/20/2009	37	17	24,749	14,267,651	24	0
1/21/2009	37	16	24,357	14,292,008	24	0
1/22/2009	37	17	24,689	14,316,697	24	0
1/23/2009	37	17	24,478	14,341,175	24	0
1/24/2009	37	16	24,091	14,365,266	24	0
1/25/2009	36	17	24,562	14,389,828	24	0
1/26/2009	36	15	22,982	14,412,810	24	0
1/27/2009	36	13	19,912	14,432,722	24	0
1/28/2009	36	12	18,661	14,451,383	24	0
1/29/2009	36	14	21,550	14,472,933	24	0
1/30/2009	36	16	23,909	14,496,842	24	0
1/31/2009	35	16	23,734	14,520,576	24	0
Sample Measurement	<b>40</b>	<b>15</b>	<b>712,234</b>	<b>14,520,576</b>	<b>31</b>	<b>100%</b>
	Daily Maximum (GPM)	Monitoring Period Average (GPM)	Monitoring Period Total (GAL)	Cumulative Total (GAL)	Runtime (Days)	Operational Percentage

**Monthly Airco Parcel GCTS  
Flow Calculations  
February 2009**

<b>Date</b>	<b>Maximum Flow (gpm)</b>	<b>Average Flow Rate (gpm)</b>	<b>Total Daily Flow (Gal)</b>	<b>Total Gallons To Date (Gal)</b>	<b>Run Time (hours)</b>	<b>Run Time (minutes)</b>
2/1/2009	35	16.00	24,081	14,544,657	24	0
2/2/2009	35	16.00	23,574	14,568,231	24	0
2/3/2009	35	16.00	23,734	14,591,965	24	0
2/4/2009	35	16.00	23,551	14,615,516	24	0
2/5/2009	35	16.00	23,679	14,639,195	24	0
2/6/2009	34	16.00	23,155	14,662,350	24	0
2/7/2009	34	16.00	23,769	14,686,119	23	1
2/8/2009	34	18.00	26,025	14,712,144	24	0
2/9/2009	34	17.00	24,836	14,736,980	24	0
2/10/2009	34	17.00	25,032	14,762,012	24	0
2/11/2009	33	19.00	27,667	14,789,679	24	0
2/12/2009	33	16.00	24,346	14,814,025	24	0
2/13/2009	33	12.00	18,371	14,832,396	24	0
2/14/2009	33	10.00	14,551	14,846,947	24	0
2/15/2009	32	9.00	14,279	14,861,226	24	0
2/16/2009	32	10.00	14,879	14,876,105	24	0
2/17/2009	32	11.00	16,223	14,892,328	24	0
2/18/2009	32	12.00	18,539	14,910,867	24	0
2/19/2009	32	12.00	17,991	14,928,858	24	0
2/20/2009	32	12.00	17,748	14,946,606	24	0
2/21/2009	31	12.00	17,757	14,964,363	24	0
2/22/2009	31	12.00	17,555	14,981,918	24	0
2/23/2009	31	12.00	17,363	14,999,281	24	0
2/24/2009	31	12.00	17,858	15,017,139	24	0
2/25/2009	31	12.00	17,771	15,034,910	24	0
2/26/2009	31	12.00	17,545	15,052,455	24	0
2/27/2009	31	16.00	23,942	15,076,397	24	0
2/28/2009	31	15.00	21,655	15,098,052	24	0
Sample Measurement	<b>35</b>	<b>14</b>	<b>577,476</b>	<b>15,098,052</b>	<b>28</b>	<b>100%</b>
	Daily Maximum (GPM)	Monitoring Period Average (GPM)	Monitoring Period Total (GAL)	Cumulative Total (GAL)	Runtime (Days)	Operational Percentage

**Monthly Airco Parcel GCTS  
Flow Calculations  
March 2009**

<b>Date</b>	<b>Maximum Flow (gpm)</b>	<b>Average Flow Rate (gpm)</b>	<b>Total Daily Flow (Gal)</b>	<b>Total Gallons To Date (Gal)</b>	<b>Run Time (hours)</b>	<b>Run Time (minutes)</b>
3/1/2009	31	10	14,516	15,112,568	24	0
3/2/2009	30	10	14,562	15,127,130	24	0
3/3/2009	31	14	20,921	15,148,051	24	0
3/4/2009	31	5	8,375	15,156,426	24	0
3/5/2009	30	7	11,266	15,167,692	24	0
3/6/2009	31	11	16,215	15,183,907	24	0
3/7/2009	31	13	20,046	15,203,953	24	0
3/8/2009	31	8	12,649	15,216,602	24	0
3/9/2009	30	9	14,086	15,230,688	24	0
3/10/2009	30	11	16,567	15,247,255	24	0
3/11/2009	30	12	17,353	15,264,608	24	0
3/12/2009	30	9	13,757	15,278,366	24	0
3/13/2009	30	12	17,984	15,296,350	24	0
3/14/2009	30	14	20,226	15,316,576	24	0
3/15/2009	30	13	18,844	15,335,420	24	0
3/16/2009	30	13	19,987	15,355,407	24	0
3/17/2009	29	11	16,210	15,371,617	24	0
3/18/2009	29	11	16,504	15,388,121	24	0
3/19/2009	30	13	19,089	15,407,210	24	0
3/20/2009	29	16	23,695	15,430,905	24	0
3/21/2009	30	21	30,533	15,461,438	24	0
3/22/2009	29	19	27,574	15,489,012	24	0
3/23/2009	29	19	27,369	15,516,381	24	0
3/24/2009	29	18	27,297	15,543,678	24	0
3/25/2009	29	19	27,439	15,571,117	24	0
3/26/2009	29	19	27,445	15,598,562	24	0
3/27/2009	29	18	27,216	15,625,778	24	0
3/28/2009	29	18	27,109	15,652,887	24	0
3/29/2009	29	19	27,719	15,680,606	24	0
3/30/2009	29	18	26,415	15,707,021	24	0
3/31/2009	28	18	26,254	15,733,275	24	0
Sample Measurement	<b>30</b>	<b>14</b>	<b>635,222</b>	<b>15,733,275</b>	<b>31</b>	<b>100%</b>
	Daily Maximum (GPM)	Monitoring Period Average (GPM)	Monitoring Period Total (GAL)	Cumulative Total (GAL)	Runtime (Days)	Operational Percentage

**Monthly Airco Parcel GCTS  
Flow Calculations  
April 2009**

<b>Date</b>	<b>Maximum Flow (gpm)</b>	<b>Average Flow Rate (gpm)</b>	<b>Total Daily Flow (Gal)</b>	<b>Total Gallons To Date (Gal)</b>	<b>Run Time (hours)</b>	<b>Run Time (minutes)</b>
4/1/2009	28	18	26,617	15,759,892	24	0
4/2/2009	28	18	26,418	15,786,310	24	0
4/3/2009	28	21	31,179	15,817,489	24	0
4/4/2009	28	19	27,530	15,845,019	24	0
4/5/2009	28	18	26,167	15,871,186	24	0
4/6/2009	28	18	27,002	15,898,188	24	0
4/7/2009	28	18	26,677	15,924,865	24	0
4/8/2009	28	18	26,187	15,951,052	24	0
4/9/2009	27	18	25,994	15,977,046	24	0
4/10/2009	27	17	25,886	16,002,932	24	0
4/11/2009	27	17	25,749	16,028,681	24	0
4/12/2009	27	17	25,372	16,054,053	24	0
4/13/2009	27	17	25,425	16,079,478	24	0
4/14/2009	27	17	25,012	16,104,490	24	0
4/15/2009	27	17	24,551	16,129,041	24	0
4/16/2009	26	17	24,842	16,153,883	24	0
4/17/2009	26	17	24,586	16,178,469	24	0
4/18/2009	26	16	24,457	16,202,926	24	0
4/19/2009	26	17	24,474	16,227,400	24	0
4/20/2009	26	17	25,301	16,252,701	24	0
4/21/2009	26	16	24,413	16,277,114	24	0
4/22/2009	25	17	24,558	16,301,672	24	0
4/23/2009	25	16	24,415	16,326,087	24	0
4/24/2009	25	17	24,466	16,350,553	24	0
4/25/2009	25	16	24,300	16,374,853	24	0
4/26/2009	25	16	24,452	16,399,305	24	0
4/27/2009	25	16	23,389	16,422,694	24	0
4/28/2009	25	16	23,650	16,446,344	24	0
4/29/2009	25	16	23,438	16,469,782	24	0
4/30/2009	24	16	24,122	16,493,904	24	0
Sample Measurement	<b>26</b>	<b>17</b>	<b>760,629</b>	<b>16,493,904</b>	<b>30</b>	<b>100%</b>
	Daily Maximum (GPM)	Monitoring Period Average (GPM)	Monitoring Period Total (GAL)	Cumulative Total (GAL)	Runtime (Days)	Operational Percentage

**Monthly Airco Parcel GCTS  
Flow Calculations  
May 2009**

<b>Date</b>	<b>Maximum Flow (gpm)</b>	<b>Average Flow Rate (gpm)</b>	<b>Total Daily Flow (Gal)</b>	<b>Total Gallons To Date (Gal)</b>	<b>Run Time (hours)</b>	<b>Run Time (minutes)</b>
5/1/2009	25	18	26,342	16,520,246	24	0
5/2/2009	24	16	23,138	16,543,384	24	0
5/3/2009	24	16	23,131	16,566,515	24	0
5/4/2009	24	15	22,582	16,589,097	24	0
5/5/2009	24	15	22,864	16,611,961	24	0
5/6/2009	47	17	25,586	16,637,547	24	0
5/7/2009	47	21	30,378	16,667,925	24	0
5/8/2009	48	21	31,193	16,699,118	24	0
5/9/2009	48	21	31,271	16,730,389	24	0
5/10/2009	48	19	28,622	16,759,011	24	0
5/11/2009	47	18	26,219	16,785,230	24	0
5/12/2009	47	18	26,156	16,811,386	24	0
5/13/2009	47	18	26,248	16,837,634	24	0
5/14/2009	47	18	26,078	16,863,712	24	0
5/15/2009	48	17	25,642	16,889,354	24	0
5/16/2009	47	17	25,700	16,915,054	24	0
5/17/2009	47	17	25,284	16,940,338	24	0
5/18/2009	47	17	24,978	16,965,316	24	0
5/19/2009	47	17	25,122	16,990,438	24	0
5/19/2009	47	17	25,122	16,990,438	24	0
5/20/2009	52	17	25,020	17,015,458	24	0
5/21/2009	47	17	24,750	17,040,208	24	0
5/22/2009	47	16	24,412	17,064,620	24	0
5/23/2009	47	16	24,374	17,088,994	24	0
5/24/2009	52	17	24,478	17,113,472	24	0
5/25/2009	49	16	24,030	17,137,502	24	0
5/26/2009	47	16	24,090	17,161,592	24	0
5/27/2009	46	16	23,894	17,185,486	24	0
5/28/2009	46	17	24,552	17,210,038	24	0
5/29/2009	46	17	25,184	17,235,222	24	0
5/30/2009	46	16	24,384	17,259,606	24	0
5/31/2009	46	15	22,992	17,282,598	24	0
<b>Sample Measurement</b>	<b>44</b>	<b>17</b>	<b>813,816</b>	<b>17,282,598</b>	<b>31</b>	<b>100%</b>
	Daily Maximum (GPM)	Monitoring Period Average (GPM)	Monitoring Period Total (GAL)	Cumulative Total (GAL)	Runtime (Days)	Operational Percentage

**Monthly Airco Parcel GCTS  
Flow Calculations  
June 2009**

<b>Date</b>	<b>Maximum Flow (gpm)</b>	<b>Average Flow Rate (gpm)</b>	<b>Total Daily Flow (Gal)</b>	<b>Total Gallons To Date (Gal)</b>	<b>Run Time (hours)</b>	<b>Run Time (minutes)</b>
6/1/2009	46	15	22,770	17,305,368	24	0
6/2/2009	46	15	22,710	17,328,078	24	0
6/3/2009	46	15	22,854	17,350,932	24	0
6/4/2009	46	15	22,644	17,373,576	24	0
6/5/2009	46	16	23,474	17,397,050	24	0
6/6/2009	46	16	23,194	17,420,244	24	0
6/7/2009	46	15	22,954	17,443,198	24	0
6/8/2009	46	16	23,150	17,466,348	24	0
6/9/2009	46	16	23,926	17,490,274	24	0
6/10/2009	46	15	22,096	17,512,370	24	0
6/11/2009	45	15	22,536	17,534,906	24	0
6/12/2009	45	14	21,530	17,556,436	24	0
6/13/2009	45	14	21,272	17,577,708	24	0
6/14/2009	45	14	21,384	17,599,092	24	0
6/15/2009	45	14	20,948	17,620,040	24	0
6/16/2009	45	17	25,372	17,645,412	24	0
6/17/2009	49	19	28,322	17,673,734	24	0
6/18/2009	46	20	28,936	17,702,670	24	0
6/19/2009	45	18	26,942	17,729,612	24	0
6/20/2009	45	19	28,030	17,757,642	24	0
6/21/2009	45	18	26,476	17,784,118	24	0
6/22/2009	48	17	25,414	17,809,532	24	0
6/23/2009	44	17	24,790	17,834,322	24	0
6/24/2009	47	17	24,550	17,858,872	24	0
6/25/2009	45	20	29,694	17,888,566	24	0
6/26/2009	44	18	26,272	17,914,838	24	0
6/27/2009	44	17	25,728	17,940,566	24	0
6/28/2009	44	18	25,940	17,966,506	24	0
6/29/2009	44	17	25,188	17,991,694	24	0
6/30/2009	44	17	25,024	18,016,718	24	0
<b>Sample Measurement</b>	<b>45</b>	<b>17</b>	<b>734,120</b>	<b>18,016,718</b>	<b>30</b>	<b>100%</b>
	Daily Maximum (GPM)	Monitoring Period Average (GPM)	Monitoring Period Total (GAL)	Cumulative Total (GAL)	Runtime (Days)	Operational Percentage