EMA
Environmental Management Associates, LLC

February 4, 2015 Reference No. 559

Mr. David Reuland
Georgia Environmental Protection Division
Hazardous Sites Response Program
Floyd Towers East, Suite #1462
2 Martin Luther king Jr. Drive, SE
Atlanta, Georgia 30334-9000

Dear Mr. Reuland:

Re: Semi-annual VRP Progress Report - December 2014
Voluntary Remediation Plan
Professional Cleaners & Linen Service
2040 Beaver Ruin Road, Norcross, GA

On behalf of Indian Trail Retail Assoc, LTD, Environmental Management Associates, LLC (EMA) has attached the Semi-annual VRP Progress Report for December 2014 for the above-referenced site. Based on the results of the last sampling event in November 2014 and January 2015, the groundwater at the Site meets the associated Type 1 RRS for residential properties and Indian Trail Retail Associates, LP is requesting that EPD approve a "No Further Action Required" status for this Site.

Please find one hard copy and one electronic version of the progress report. We certify that to the best of our knowledge that the electronic copy is complete, identical in content to the paper copy, and virus free.

Should you have any questions related to this correspondence, please contact the undersigned at (770) 271-4628.

Yours truly,

Environmental Management Associates, LLC

Brent Cortelloni, CHMM

cc: Craig Harper - Indian Trail Retail Assoc., LTD

5262 Belle Wood Court, Suite A ♦ Buford, Georgia 30518
Phone 770.271.4628 ♦ Fax 770.271.8944
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SEMI-ANNUAL VOLUNTARY REMEDIATION PLAN PROGRESS REPORT - DECEMBER 2014

PROFESSIONAL CLEANERS & LINEN SERVICE
2040 BEAVER RUIN ROAD
NORCROSS, GEORGIA

HSI No. NA

January 27, 2015

Prepared for

Indian Trail Retail Assoc., LP
P.O. Box 767127
Roswell, Georgia

SEMI-ANNUAL VOLUNTARY REMEDIATION PLAN PROGRESS REPORT - DECEMBER 2014

PROFESSIONAL CLEANERS & LINEN SERVICE
2040 BEAVER RUIN ROAD
NORCROSS, GEORGIA

HSI No. NA

JANUARY 27, 2015

Brent Cortelloni, CHMM
Project Manager

EMA
Environmental Management Associates, LLC
5262 Belle Wood Court, Suite A
Buford, Georgia 30518

John O. Schwaller, P.G.
(GA. Registration No. 1617)

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1.0 PROJECT SUMMARY

The Professional Cleaners & Linen Service site (Site) is located at 2040 Beaver Ruin Road in Norcross, Gwinnett County, Georgia and is part of a 1.79-acre multi-tenant shopping center (Crossings Shopping Center) developed in 1984. The surrounding properties are predominantly commercial with some residential to the north. A dry cleaner has operated within one of the tenant spaces (Suite 15) since 1984 and is believed to be the source of the Site contamination. A topographic map (Property Location Map) of the surrounding area is included as Figure 1.

A Phase I and II Environmental Site Assessment (ESA) was completed in February 2011 for the subject property. During the Phase II ESA activities, a release of tetrachloroethene (PCE) was detected in the subsurface soils and groundwater above the applicable Notification Concentrations (NC) referenced in Georgia Environmental Protection Division's (EPD) Hazardous Site Response Act (HSRA) Regulations Chapter 391-3-19, Appendix I. Within 30 day's of detection, the detected soils above the NC were removed from the Site based on the confirmatory soil sample results. A release notification to groundwater was subsequently submitted to EPD on April 7, 2011. It should be noted that PCE is the only contaminant of concern at this Site.

A Voluntary Investigation and Remediation Plan (VIRP) prepared by EMA was submitted to EPD on September 2, 2011. EPD approved the VIRP and accepted the Site into the Voluntary remediation Program (VRP) with conditions and comments in two letters dated March 6, 2012.

EMA conducted two formal injections of an in-situ chemical oxidation (ISCO) reagent (PeroxyChem's (formerly FMC Corporation) Klozur® sodium persulfate mixed with an alkaline activator (sodium hydroxide) to form sulfate and hydroxyl radicals) to reduce the levels of the groundwater contamination in what was assumed to be the entire contaminant plume (The area from MW-1 south-southwest to MW-2). The injections were completed in April/June 2012 and August 2012. Several quarterly sampling events were completed prior to and following the final injection.

A VRP Compliance Status Report (V-CSR) dated May 15, 2013 was submitted to EPD in June 2013. At that time PCE was below the EPD Type 4 Risk reduction Standard (98 ppb) in all of the monitoring wells and the EMA proposed Alternative Concentration Limit (ACL) of 70 ppb in the V-CSR. EPD provided comments on the V-CSR in correspondence dated October 10, 2013.

Semi-annual Progress Report No. 3 was submitted in May 2014 and included the confirmatory groundwater sampling event requested by EPD, additional soil sampling to identify any source areas not detected during the previous investigations, and additional horizontal delineation of the on-Site groundwater contamination. The October 29 and 30, 2013 round of sampling and the sample results from additional monitoring well MW-11 on April 22, 2014 indicated that PCE levels have rebounded at upgradient location MW-1 and other previous areas of unknown contamination have been identified along the east side of the building. The higher level of PCE detected at well MW-4 was most likely the result of the upgradient injections around monitoring well MW-2 versus standard contaminant migration within the groundwater. The high level of PCE in the groundwater at MW-11 was not unexpected based on the groundwater flow direction; however, the previous 2011 Phase II investigation in this area did not identify this area as impacted.

This Semi-annual VRP Progress Report No. 4 was prepared in accordance with the VRP and covers the activities conducted since the Semi-annual Progress Report No. 3 submittal. These activities included a formal injection of Klozure® along the east side of the Site from MW-1 to MW-4, the semi-annual groundwater sampling event, a second limited injection in the area of MW-1 and MW-7, and a confirmatory groundwater sampling event for wells MW-1 and MW-7.

2.0 ACTIONS TAKEN SINCE LAST SUBMITTAL

2.1 FORMAL INJECTION EVENT

Based on the rebound of the PCE contamination in wells MW-1 and MW-4 and the contamination detected in well MW-11, a third formal injection of activated persulfate was applied to the groundwater contaminant plume. EMA's subcontractors, REM-CON and GeoLab Probing Services, injected approximately 3,600 gallons of 20 percent sodium persulfate solution (3,000 pounds of persulfate) activated with hydrogen peroxide in 45 direct push borings installed throughout the contaminant plume from October 23 to 31, 2014. The injection locations are illustrated on Figure 2. The sodium persulfate reagent was injected from the bottom up at five foot intervals in the top 15 feet of the aquifer in the area from MW-1 to MW-11. The injection depth was increased to 20 feet of the aquifer from just south of MW-11 to MW-4.

Approximately 35 temporary ¾-inch PVC injection points were installed following the injection throughout the treatment area in case additional injections are required in the future. The locations of these temporary injection points are illustrated on Figure 2. The temporary injection points included approximately 9 feet of screen in three foot screen sections spread over 15 feet from the bottom of each boring. The temporary injection points are predominantly 32 feet deep in the area from MW-1 to MW-11 and 37 feet deep from south of MW-11 to MW-4. The injection points were backfilled with sand to 2 feet above the top of screen and Bentonite from 2 feet above the top of screen to 1 foot bgs. Each injection point was then completed with 1 foot of concrete to ground surface and capped with a threaded plug.

2.2 SEMI-ANNUAL GROUNDWATER MONITORING EVENT

The fifth quarterly post-injection groundwater monitoring event was conducted in November 2014 using the low-flow purging and sampling technique. Groundwater samples were initially collected from well MW-1 and MW-4 on November 11 and 14, 2014, respectively, and from all other wells on November 28, 2014. Static groundwater level measurements were recorded at each monitoring well prior to purging. The groundwater measurements are included in Table 1. A potentiometric contour map for this event was prepared based on the groundwater elevations presented in Table 1 and is provided as Figure 3.

Groundwater samples were collected using the low-flow/low-stress purging and sampling technique referenced in USEPA Region IV's SESD Operating Procedures - Groundwater Sampling dated March 4, 2013. Peristaltic pumps with disposable Teflon or Teflon lined tubing was used for the purging and sampling. The "Soda Straw" method was used to collect the groundwater samples for tetrachloroethene (PCE). The groundwater samples were delivered to Analytical Environmental Services, Inc. (AES) located in Atlanta, Georgia. AES is an accredited laboratory under the National Environmental Laboratory Accreditation Program (NELAC) (Accreditation ID: E87582). The groundwater samples were submitted for PCE by SW-846 Method 8260B. During the low-flow/low-stress purging procedure, field measurements of reduction oxidation potential (redox), dissolved oxygen (D.O.), turbidity, pH, conductivity, and temperature were recorded. Once the field measurements stabilized for three consecutive readings, samples were collected directly into the pre-preserved laboratory supplied containers. A duplicate sample from well MW-2 was collected during the event for PCE to assess precision and a trip blank sample was included with the sample sets to assess cross-contamination during shipping. Field "rinsate" samples were not required since disposable tubing was utilized for the sample collection. The low-flow well purging/sampling forms are included in Appendix A. The analytical reports are included in Appendix B.

The PCE results for the confirmatory groundwater monitoring event are summarized in Table 2 and illustrated on Figure 4. PCE concentrations were non-detect for all wells except MW-1 (19 micrograms per liter (µg/L)) and MW-7 (58 µg/L). The only groundwater sample result that was above the Type 2 RRS of 19 µg/L but below the Type 4 RRS of 98 µg/L was from MW-7. The low-flow well purging/sampling forms are included in Appendix A. The analytical reports are included in Appendix B.

2.3 LIMITED INJECTION EVENT/CONFIRMATORY SAMPLING

Based on the results of the semi-annual sampling at wells MW-1 and MW-7, Indian Trail Retail Associates, LP requested additional groundwater treatment in the areas around MW-1 and MW-7 to try and reduce the contaminant levels to below the Type 1 RRS (5 µg/L) at these locations. Approximately 165 pounds of hydrogen peroxide activated sodium persulfate was injected in six (6) temporary injection points adjacent to these wells on January 5, 2015.

Monitoring wells MW-1 and MW-7 were re-sampled on January 19, 2015 using the low-flow/low-stress purging and sampling technique referenced in Section 2.2 and submitted to AES for PCE analysis. Both groundwater samples were

reported as non-detect. A copy of the analytical report is included in Appendix B.

2.4 DISCUSSION AND CONCLUSIONS

Significant remedial efforts have been completed to bring the Site into compliance with the RRS. Three formal injections of the ISCO reagent have been conducted at the Site over the past two years. In addition, limited injections have been conducted in what we believe are the source areas at MW-1 and the former dry cleaning machine location (adjacent to MW-7). Based on the most recent round of groundwater sampling conducted in November 2014 and the additional sampling conducted in January 2015 for wells MW-1 and MW-7, the groundwater PCE analytical results for all on-Site and off-Site wells are non-detect at the associated quantitation limit of 5 µg/L. Therefore, the groundwater at the Site meets the associated Type 1 RRS for residential properties and Indian Trail Retail Associates, LP is requesting that EPD approve a "No Further Action Required" status for this Site.

3.0 UPDATED COST ESTIMATE

The initial cost estimate for the proposed groundwater monitoring, delineation, and remediation of the groundwater PCE contamination known at the time was provided to EPD in the VIRP and included a range from $66,600 to $78,600. The total cost to date which includes the additional investigation and remediation activities detailed in this Progress Report is approximately $120,350. A summary of the initial estimate included in the VIRP and the proposed cost to complete is included in Appendix C. We have also included a tabulated summary of the expenses since the last reporting period and a summary of hours charged by our Professional Geologist.

4.0 SCHEDULE AND FUTURE SUBMITTALS

It is anticipated that EPD will grant Indian Trail Retail Associates, LP a "No Further Action Required" status for this Site.

5.0 PROFESSIONAL GEOLOGIST CERTIFICATION STATEMENT

"I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

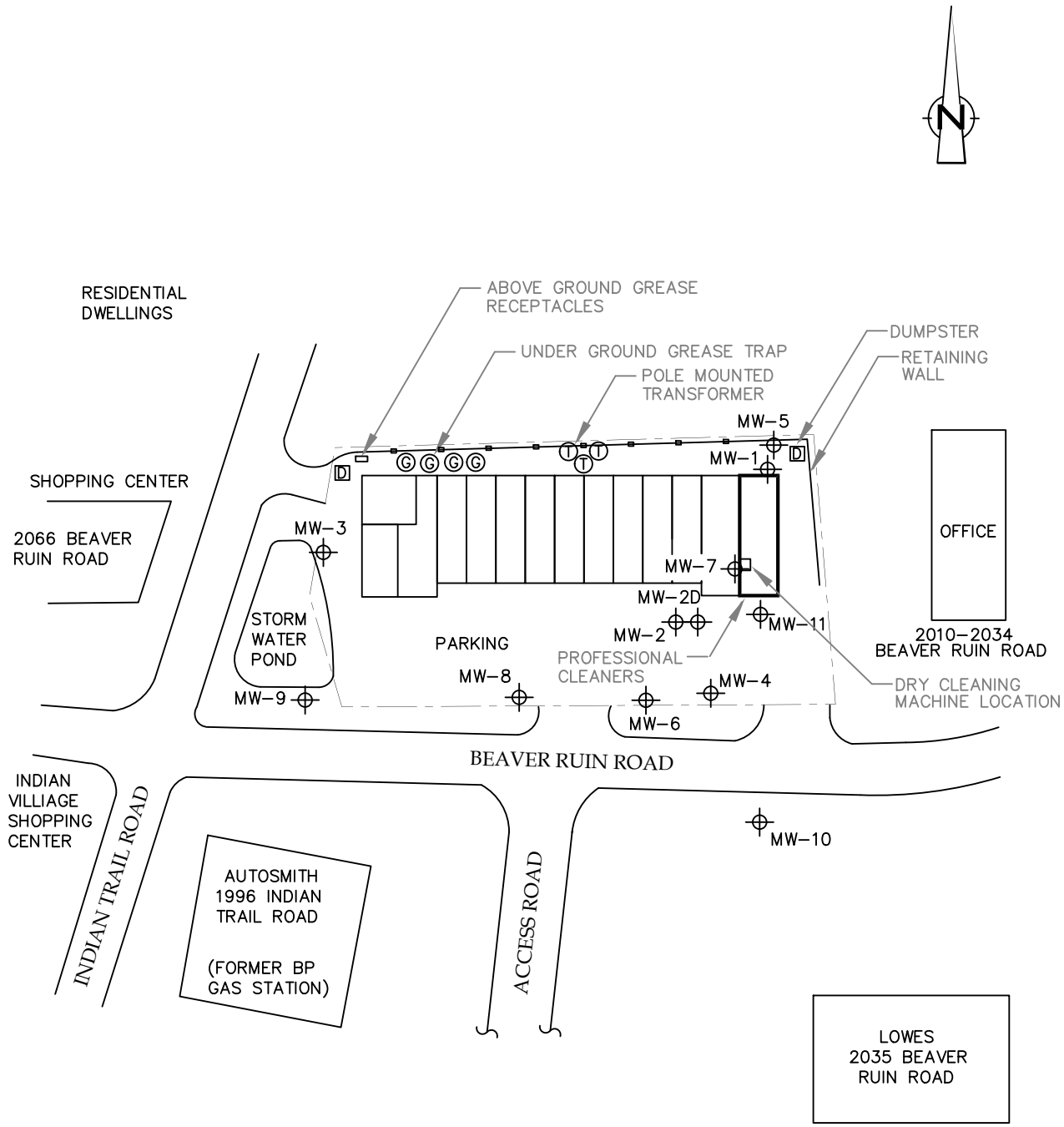
Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and log term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. "

Mr. John O. Schwaller, P.G.
Georgia Registration No. 1617

Signature/Stamp

FIGURES



LEGEND:

MW-1 ⊕ MONITORING WELL LOCATION

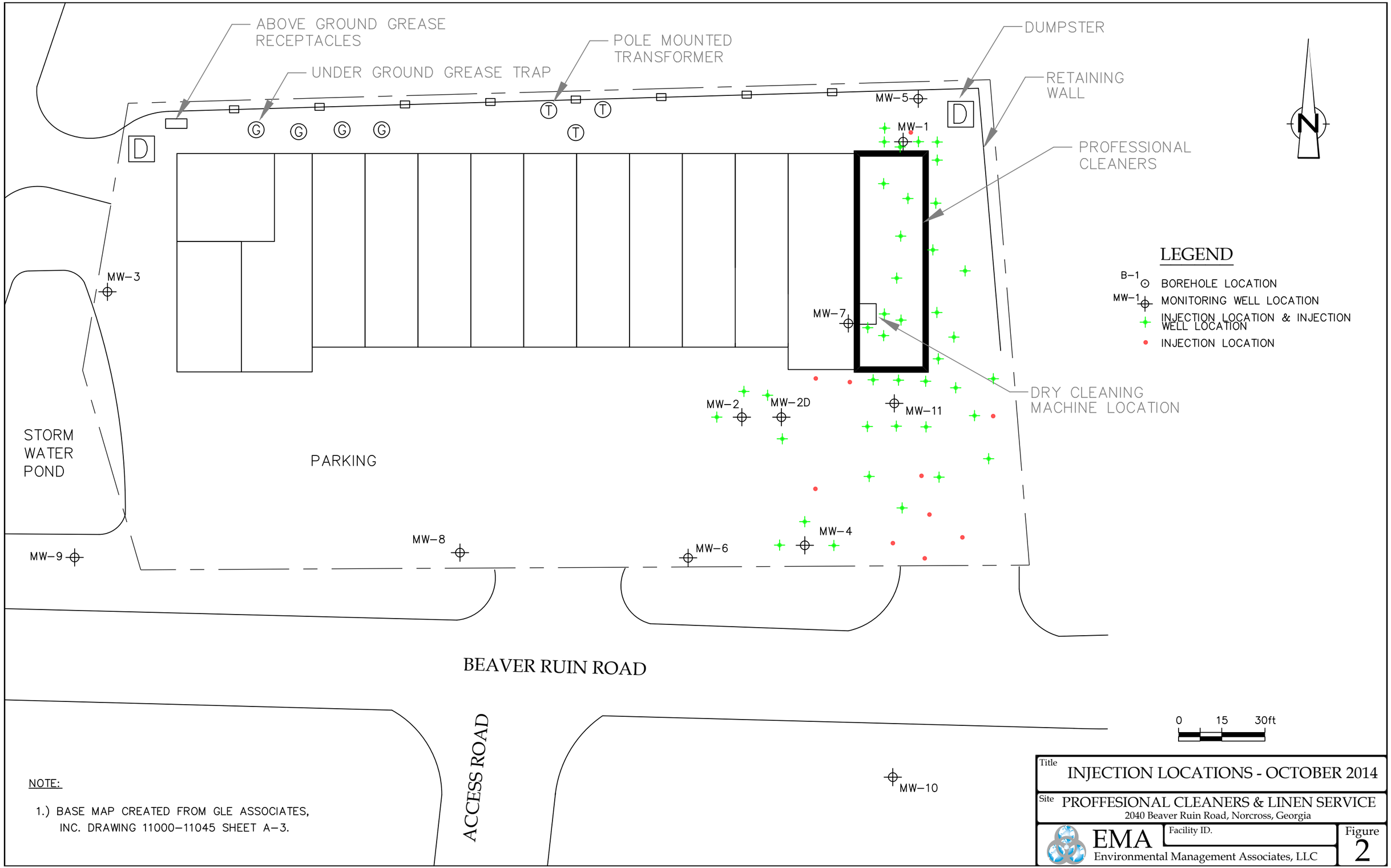
NOTE:

1.) BASE MAP CREATED FROM GLE ASSOCIATES, INC. DRAWING 11000-11045 SHEET A-3.

0 50 100FT

SCALE

Title	SITE PLAN
Site	PROFESSIONAL CLEANERS & LINEN SERVICE 2040 Beaver Ruin Road, Norcross, Georgia
EMA Environmental Management Associates, LLC	Facility ID.
	Figure 1



NOTE:

1.) BASE MAP CREATED FROM GLE ASSOCIATES, INC. DRAWING 11000–11045 SHEET A–3.

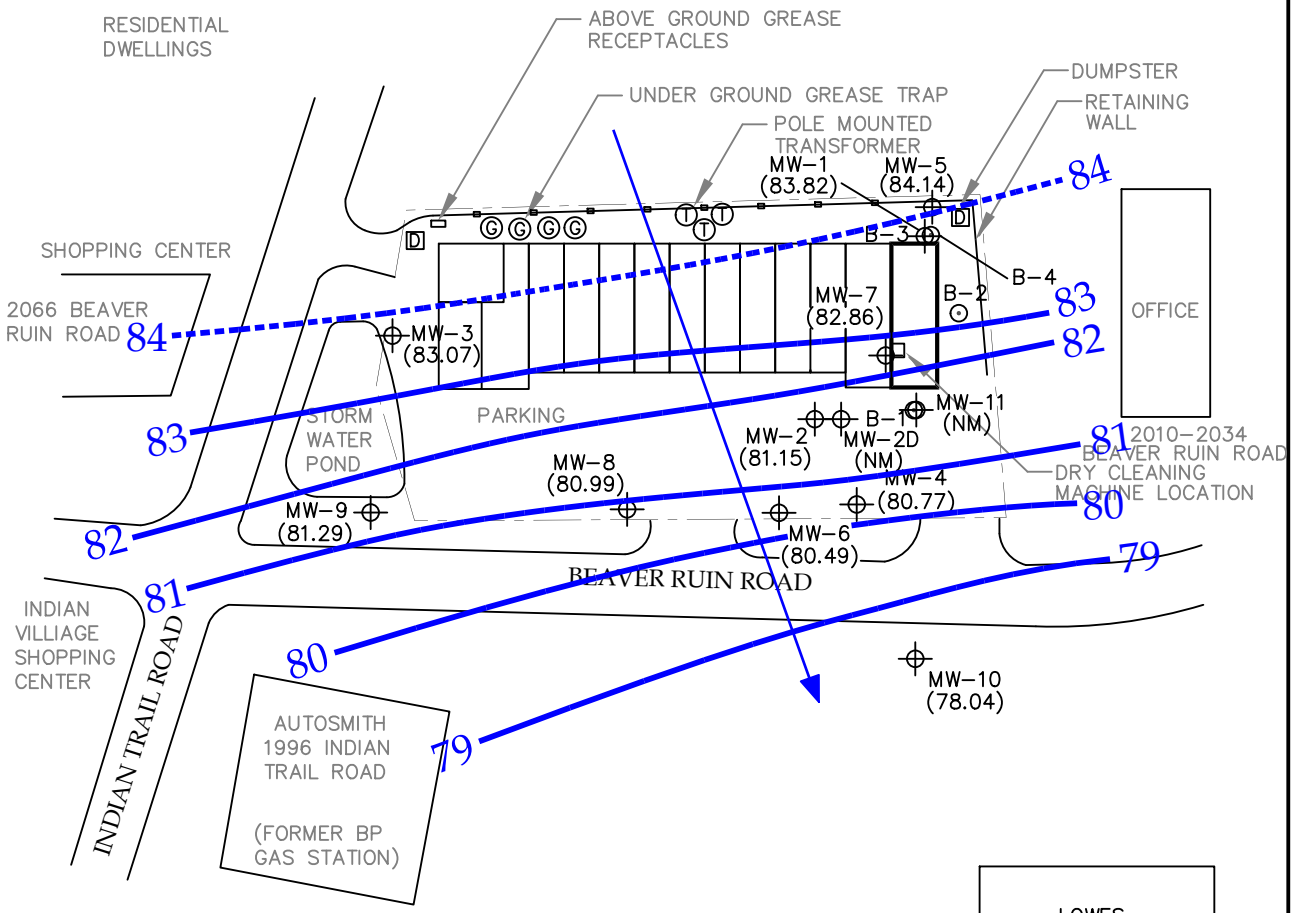
Title: INJECTION LOCATIONS - OCTOBER 2014

Site: PROFFESIONAL CLEANERS & LINEN SERVICE
2040 Beaver Ruin Road, Norcross, Georgia

EMA Environmental Management Associates, LLC

Facility ID.

Figure 2



LEGEND:

B-1 ⊙ BOREHOLE LOCATION

MW-1 ⊕ MONITORING WELL LOCATION

(79.19) GROUNDWATER CONCENTRATION, FT AMSL

(NM) NOT MEASURED

80 GROUNDWATER CONCENTRATION CONTOUR, FT AMSL

GROUNDWATER FLOW DIRECTION

NOTE:

BASE MAP CREATED FROM GLE ASSOCIATES, INC DRAWING 11000-11045 SHEET A-3.

0 50 100FT

SCALE

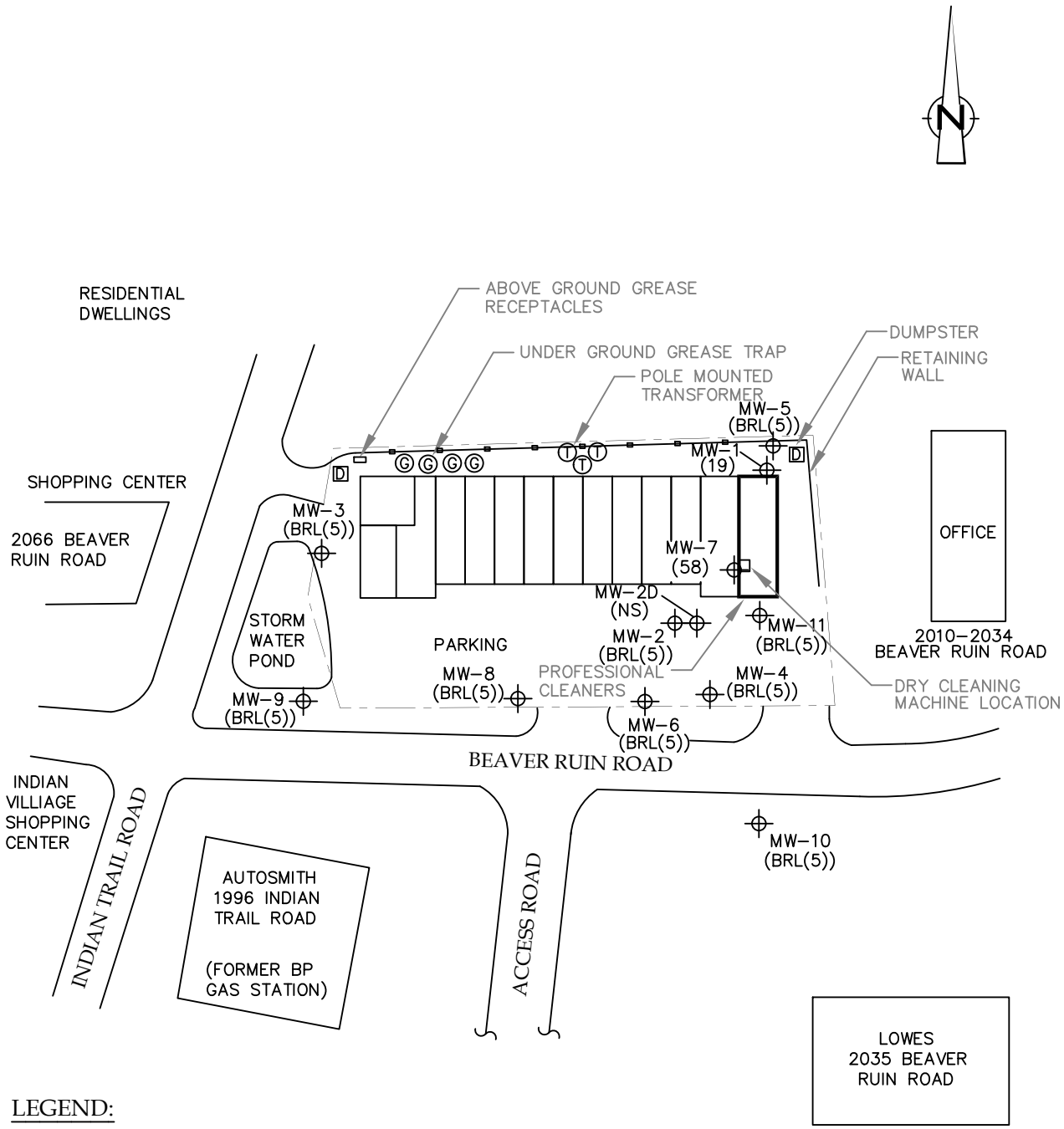
Title: GROUNDWATER CONTOURS AND FLOW DIRECTION - NOVEMBER 2014

Site: PROFESSIONAL CLEANERS & LINEN SERVICE
2040 Beaver Ruin Road, Norcross, Georgia

EMA Environmental Management Associates, LLC

Facility ID.

Figure 3



LEGEND:

MW-1 ⊕ MONITORING WELL LOCATION

(BRL(5)) BELOW REPORTING LIMITS

NS NOT SAMPLED

NOTES:

1.) CONCENTRATIONS ARE IN MICROGRAMS PER LITER.

2.) BASE MAP CREATED FROM GLE ASSOCIATES, INC. DRAWING 11000-11045 SHEET A-3.

0 50 100FT

SCALE

Title: PCE ANALYTICAL RESULTS NOVEMBER 2014

Site: PROFESSIONAL CLEANERS & LINEN SERVICE
2040 Beaver Ruin Road, Norcross, Georgia

EMA Environmental Management Associates, LLC

Facility ID.

Figure 4

TABLES

TABLE 1

GROUNDWATER PCE ANALYTICAL DATA
PROFESSIONAL CLEANERS AND LINEN SERVICE
NORCROSS, GEORGIA

Sample Location	*Sampling Period*	*Sample Date*	*Analyte*	*Concentration (µg/L)* [1]	*Standard* [2] (µg/L)
MW-1	Initial Inv.	7/1/2011	PCE	50	5/19/98
	Baseline	4/23/2012	PCE	91/100[3]	
	1st Quarter	7/24/2012	PCE	46	
	2nd Quarter	10/14/2012	PCE	BRL (5)	
	3rd Quarter	2/8/2013	PCE	5	
		10/29/2013	PCE	100	
MW-2	Initial Inv.	7/1/2011	PCE	62	5/19/98
	Baseline	3/19/2012	PCE	47	
	1st Quarter	7/24/2012	PCE	41	
	2nd Quarter	10/14/2012	PCE	29/29[3]	
	3rd Quarter	2/8/2013	PCE	36/35[3]	
		10/29/2013	PCE	24	
		8/25/2014	PCE	61	
MW-2D	Delineation	4/4/2013	PCE	BRL (5)	
		10/29/2013	PCE	BRL (5)	
MW-3	Initial Inv.	7/1/2011	PCE	BRL (5)[4]	5/19/98
	Baseline	4/23/2012	PCE	BRL (5)	
	1st Quarter	7/24/2012	PCE	BRL (5)/BRL[3]	
	2nd Quarter	10/14/2012	PCE	Not Sampled [5]	
	3rd Quarter	2/8/2013	PCE	BRL (5)	
MW-4	Initial Inv.	7/22/2011	PCE	BRL (5)	5/19/98
	Baseline	4/23/2012	PCE	BRL (5)	
	1st Quarter	7/24/2012	PCE	8.9	
	Confirmation	8/23/2012	PCE	8.3	
	2nd Quarter	10/14/2012	PCE	11	
	3rd Quarter	2/8/2013	PCE	11	
		10/29/2013	PCE	140/120 [6]	
		8/14/2014	PCE	200	
MW-5	Baseline	3/19/2012	PCE	BRL (5)	5/19/98
	1st Quarter	7/24/2012	PCE	BRL (5)	
	2nd Quarter	10/14/2012	PCE	BRL (5)	
	3rd Quarter	2/8/2013	PCE	11	
	Confirmation	2/18/2013	PCE	5.2	
		10/29/2013	PCE	11	

TABLE 1

GROUNDWATER PCE ANALYTICAL DATA
PROFESSIONAL CLEANERS AND LINEN SERVICE
NORCROSS, GEORGIA

Sample Location	*Sampling Period*	*Sample Date*	*Analyte*	*Concentration (µg/L)* [1]	*Standard* [2] (µg/L)
MW-6	Baseline	3/19/2012	PCE	BRL (5)	5/19/98
	1st Quarter	7/24/2012	PCE	5.2	
	Confirmation	8/23/2012	PCE	BRL (5)	
	2nd Quarter	10/14/2012	PCE	BRL(5)	
	3rd Quarter	2/8/2013	PCE	11	
	Confirmation	2/18/2013	PCE	BRL (5)	
		10/30/2013	PCE	33/25 [6]	
		8/25/2014	PCE	BRL (5)	
MW-7	Baseline	3/19/2012	PCE	82	5/19/98
	1st Quarter	7/24/2012	PCE	31	
	2nd Quarter	10/14/2012	PCE	19	
	3rd Quarter	2/8/2013	PCE	BRL (5)	
		10/29/2013	PCE	37	
		8/25/2014	PCE	62	
MW-8	Delineation	12/11/2012	PCE	7.9	5/19/98
	Confirmation	12/13/2012	PCE	BRL(5)	
	3rd Quarter	2/8/2013	PCE	BRL (5)	
		10/30/2013	PCE	BRL (5)	
MW-9	Delineation	12/11/2012	PCE	BRL (5)	5/19/98
	3rd Quarter	2/8/2013	PCE	BRL(5)	
		10/30/2013	PCE	BRL (5)	
MW-10	Delineation	2/12/2013	PCE	6.6	5/19/98
		10/30/2013	PCE	10	
		8/25/2014	PCE	BRL (5)	
MW-11	Delineation	4/22/2014	PCE	170	5/19/98

Notes:
1) µg/L - micrograms per liter
2) Type 1 Risk Reduction Standard (RRS)/Type 2 RRS/Type 4 RRS for groundwater.
3) Sample result and field duplicate result
4) BRL - Below reporting limit listed in paranthese
5) Insufficient groundwater available for sampling.
6) Sample result and confirmation sample result.

TABLE 1

GROUNDWATER PCE ANALYTICAL DATA
PROFESSIONAL CLEANERS AND LINEN SERVICE
NORCROSS, GEORGIA

Sample Location	*Sampling Period*	*Sample Date*	*Analyte*	*Concentration (µg/L)* [1]	*Standard* [2] (µg/L)
MW-1	Initial Inv.	7/1/2011	PCE	50	5/19/98
	Baseline	4/23/2012	PCE	91/100[3]	
	1st Quarter	7/24/2012	PCE	46	
	2nd Quarter	10/14/2012	PCE	BRL (5)	
	3rd Quarter	2/8/2013	PCE	5	
		10/29/2013	PCE	100	
		11/11/2014	PCE	19	
		1/19/2015	PCE	BRL (5)	
MW-2	Initial Inv.	7/1/2011	PCE	62	5/19/98
	Baseline	3/19/2012	PCE	47	
	1st Quarter	7/24/2012	PCE	41	
	2nd Quarter	10/14/2012	PCE	29/29[3]	
	3rd Quarter	2/8/2013	PCE	36/35[3]	
		10/29/2013	PCE	24	
		8/25/2014	PCE	61	
		11/28/2014	PCE	BRL (5)	
MW-2D	Delineation	4/4/2013	PCE	BRL (5)	
		10/29/2013	PCE	BRL (5)	
MW-3	Initial Inv.	7/1/2011	PCE	BRL (5)[4]	5/19/98
	Baseline	4/23/2012	PCE	BRL (5)	
	1st Quarter	7/24/2012	PCE	BRL (5)/BRL[3]	
	2nd Quarter	10/14/2012	PCE	Not Sampled [5]	
	3rd Quarter	2/8/2013	PCE	BRL (5)	
	3rd Quarter	11/28/2014	PCE	BRL (5)	
MW-4	Initial Inv.	7/22/2011	PCE	BRL (5)	5/19/98
	Baseline	4/23/2012	PCE	BRL (5)	
	1st Quarter	7/24/2012	PCE	8.9	
	Confirmation	8/23/2012	PCE	8.3	
	2nd Quarter	10/14/2012	PCE	11	
	3rd Quarter	2/8/2013	PCE	11	
		10/29/2013	PCE	140/120 [6]	
		8/14/2014	PCE	200	
		11/14/2014	PCE	BRL (5)	
MW-5	Baseline	3/19/2012	PCE	BRL (5)	5/19/98
	1st Quarter	7/24/2012	PCE	BRL (5)	
	2nd Quarter	10/14/2012	PCE	BRL (5)	
	3rd Quarter	2/8/2013	PCE	11	
	Confirmation	2/18/2013	PCE	5.2	
		10/29/2013	PCE	11	
		11/28/2014	PCE	BRL (5)	

TABLE 1

GROUNDWATER PCE ANALYTICAL DATA
PROFESSIONAL CLEANERS AND LINEN SERVICE
NORCROSS, GEORGIA

Sample Location	*Sampling Period*	*Sample Date*	*Analyte*	*Concentration (µg/L)* [1]	*Standard* [2] (µg/L)
MW-6	Baseline	3/19/2012	PCE	BRL (5)	5/19/98
	1st Quarter	7/24/2012	PCE	5.2	
	Confirmation	8/23/2012	PCE	BRL (5)	
	2nd Quarter	10/14/2012	PCE	BRL(5)	
	3rd Quarter	2/8/2013	PCE	11	
	Confirmation	2/18/2013	PCE	BRL (5)	
		10/30/2013	PCE	33/25 [6]	
		8/25/2014	PCE	BRL (5)	
		11/28/2014	PCE	BRL (5)	
MW-7	Baseline	3/19/2012	PCE	82	5/19/98
	1st Quarter	7/24/2012	PCE	31	
	2nd Quarter	10/14/2012	PCE	19	
	3rd Quarter	2/8/2013	PCE	BRL (5)	
		10/29/2013	PCE	37	
		8/25/2014	PCE	62	
		11/28/2014	PCE	58	
		1/19/2015	PCE	BRL (5)	
MW-8	Delineation	12/11/2012	PCE	7.9	5/19/98
	Confirmation	12/13/2012	PCE	BRL(5)	
	3rd Quarter	2/8/2013	PCE	BRL (5)	
		10/30/2013	PCE	BRL (5)	
		11/28/2014	PCE	BRL (5)	
MW-9	Delineation	12/11/2012	PCE	BRL (5)	5/19/98
	3rd Quarter	2/8/2013	PCE	BRL(5)	
		10/30/2013	PCE	BRL (5)	
		11/28/2014	PCE	BRL (5)	
MW-10	Delineation	2/12/2013	PCE	6.6	5/19/98
		10/30/2013	PCE	10	
		8/25/2014	PCE	BRL (5)	
		11/28/2014	PCE	BRL (5)	
MW-11	Delineation	4/22/2014	PCE	170	5/19/98
		11/28/2014	PCE	BRL (5)	

Notes:
1) µg/L - micrograms per liter
2) Type 1 Risk Reduction Standard (RRS)/Type 2 RRS/Type 4 RRS for groundwater.
3) Sample result and field duplicate result
4) BRL - Below reporting limit listed in paranthese
5) Insufficient groundwater available for sampling.
6) Sample result and confirmation sample result.

APPENDIX A
GROUNDWATER SAMPLING FORMS

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Professional Cleaners
Ref. No.: 559
Date: 11/11/2014
Personnel: B Cortelloni

Monitoring Well Data:

Well No.: MW-1
Measurement Point:
Constructed Well Depth (ft):
Measured Well Depth (ft): 23
Depth of Sediment (ft):
Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]: 5' F.B.
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 16.04

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level (ft)*[3]	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged*[4]
9:15	175	16.08		10.34	19.8	4.00	52	8.25	9.6		
9:25	130 ↓	16.65		10.15	19.7	3.95	78	8.73	8.2		
9:33	"	"		10.04	19.7	3.93	93	8.28	7.8		
9:43	"	"		10.07	19.7	3.89	97	7.77	7.5		
9:53	"	"		10.04	19.7	3.88	98	7.75	7.3		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Pio Nevis
Ref. No.: 559

Date: 11-14-17
Personnel: B. Costello

Monitoring Well Data:

Well No.: MW-4
Measurement Point: TOC
Constructed Well Depth (ft): 24.0
Measured Well Depth (ft): ~24.0
Depth of Sediment (ft):

Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 5' F.B
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 15.93

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
8:51	130	15.93		4.81	19.1	126	165	3.96	15		
9:00	"	15.96		4.73	19.0	116	143	3.98	10		
9:10	"	15.99		4.71	18.9	105	140	4.01	9.6		
9:20	120	15.99		4.70	18.9	104	139	4.00	9.5		
9:35	"	15.99		"	18.9	104	137	4.01	9.0		
			Sampled	9:40							

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p^*(D/2)^{2*}(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: PW Manor
Ref. No.: 559

Date: 1-28-14
Personnel: BC

Monitoring Well Data:

Well No.: MW-2 + (DUP)
Measurement Point:
Constructed Well Depth (ft): 28
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft):
Depth to Pump Intake (ft)[1]: 23
Well Diameter, D (in):
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 17.77

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
9:40	150	17.77		6.09	21.6	8,300	571	6.02	14		
9:50	"	17.77		6.01	21.3	8,200	573	6.01	11		
10:00	"	17.78		5.93	21.2	8,100	569	5.95	10		
10:10	"	17.79		5.94	21.3	8,100	560	5.92	9.8		
10:08	"	17.79		5.95	21.3	8,100	557	5.92	9.7		
10:15	"	17.79		5.95	21.3	~~8,415~~ 8,100	550	5.91	9.6		

MW-4 W.L. 16.62

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing). No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Fox Canyon
Ref. No.: 559

Date: 11-25-14
Personnel: JS

Monitoring Well Data:

Well No.: MW-3
Measurement Point:
Constructed Well Depth (ft): 24
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft):
Depth to Pump Intake (ft)[1]:
Well Diameter, D (in):
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 15.76

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
0530	65	15.76		4.53	15.10	0.081	112	1.12	11.4		
0535	↓	15.50		4.80	15.03	0.063	183	1.51	6.3		
0540		15.65		4.70	14.30	0.063	285	1.50	4.9		
0545		15.53		4.70	14.25	0.063	275	1.40	4.8		
0550	53	15.90		4.70	14.22	0.063	273	1.43	4.2		

MW-1 16.25

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^{2*}(5*12)^*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Pro Homes
Ref. No.: 559

Date: 11-28-17
Personnel: BC

Monitoring Well Data:

Well No.: MW-5
Measurement Point:
Constructed Well Depth (ft): 27
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 15'
Depth to Pump Intake (ft)[1]: 5' f.B.
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 16.20

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
8:30	150	16.17		6.25	17.5	305	368	8.15	10		
8:38	"	16.19		6.02	17.1	280	351	8.00	9.6		
8:43	"	16.22		5.97	16.9	276	334	7.93	9.0		
8:50	"	16.23		5.97	16.9	276	332	7.92	6.5		
8:56	"	16.24		5.96	16.9	277	332	7.90	8.3		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^{2*}(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= V_p / V_s.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: P.D. Cleaners
Ref. No.: 559

Date: 11-28-14
Personnel: J. S.

Monitoring Well Data:

Well No.: MW-6
Measurement Point:
Constructed Well Depth (ft): 25
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 5' F.B.
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 16.32

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1005	65	16.32		5.41	18.38	2.071	155	5.01	114		
1008	"	16.40		5.38	18.31	2.053	148	4.56	111		
1012	"	16.52		5.32	18.26	2.046	142	4.21	12.6		
1016	"	16.58		5.32	18.20	2.046	143	4.18	9.3		
1023	"	16.55		5.32	18.30	2.046	144	4.30	8.5		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= V_p/V_s.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Pio (illegible)

Ref. No.: 559

Date: 11.28.14

Personnel: BC

Monitoring Well Data:

Well No.: MW-7

Measurement Point:

Constructed Well Depth (ft): 30

Measured Well Depth (ft):

Depth of Sediment (ft):

Screen Length (ft): 15'

Depth to Pump Intake (ft)[1]: 5 ft 3,

Well Diameter, D (in): 1"

Well Screen Volume, V_s (mL)[2]:

Initial Depth to Water (ft): 17.42

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
9:05	150	17.89		11.91	20.4	1760	96	8.15	15		
9:15	"	17.91		11.83	20.1	1757	75	8.13	8.7		
9:27	"	17.90		11.83	20.1	1749	74	8.13	6.9		
9:31	"	17.89		11.84	20.2	1743	73	8.12	6.1		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Pro. Cleaners
Ref. No.: 559

Date: 11.24.14
Personnel: JS

Monitoring Well Data:

Well No.: MW-8
Measurement Point:
Constructed Well Depth (ft): 30
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]: 31 F.B
Well Diameter, D (in): 3/4
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 17.66

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level (ft)*[3]	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged*[4]
0538	100	17.61		6.12	18.25	0.056	155	4.02	23.1		
0942	100	17.80		5.18	18.20	0.058	138	4.01	11.2		
0945	85	17.83		5.14	18.23	0.053	120	3.83	7.8		
0950	"	17.85		5.13	18.28	0.053	128	3.98	7.4		
0955	"	17.90		5.13	18.20	0.053	127	3.80	6.8		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing). No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: P&D Cleaners
Ref. No.: 559

Date: 11-28-17
Personnel: JS

Monitoring Well Data:

Well No.: MW-9
Measurement Point:
Constructed Well Depth (ft): 25
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 3' F.B.
Well Diameter, D (in): 3/4"
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 17.34

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
0900	85	17.34		6.08	10.65	0.153	112	2.60	11.2		
0903	"	17.45		6.02	10.80	0.150	65	2.40	12.6		
0908	"	17.51		5.90	10.70	0.181	53	2.03	11.3		
0913	"	17.58		5.90	10.73	0.181	58	2.10	8.4		
0924	"	17.50		5.90	10.63	0.181	51	2.09	~~7.2~~ 7.1		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^{2}*(5*12)*(2.54)^{3}$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: P.D. Mears

Ref. No.: 559

Date: 11-18-14

Personnel: JS

Monitoring Well Data:

Well No.: MW-10

Measurement Point:

Constructed Well Depth (ft): 30

Measured Well Depth (ft):

Depth of Sediment (ft):

Screen Length (ft): 10'

Depth to Pump Intake (ft)[1]: 31 F.B.

Well Diameter, D (in): 3/4"

Well Screen Volume, V_s (mL)[2]:

Initial Depth to Water (ft): 22.73

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1038	65	22.73		5.63	16.85	0.083	177	1.63	7.4		
1042	"	22.84		5.50	16.90	0.074	163	1.51	5.6		
1045	"	22.91		5.47	16.93	0.073	148	1.33	4.0		
1050	"	22.93		5.47	16.90	0.073	150	1.27	4.2		
1055	"	22.90		5.47	16.64	0.073	147	1.30	3.8		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Pro. Cleaners

Ref. No.: 559

Date: 11-28-14

Personnel: BC

Monitoring Well Data:

Well No.: MW-11

Measurement Point:

Constructed Well Depth (ft): 27

Measured Well Depth (ft):

Depth of Sediment (ft):

Screen Length (ft): 10'

Depth to Pump Intake (ft)[1]: 5' FB

Well Diameter, D (in): 2"

Well Screen Volume, V_s (mL)[2]:

Initial Depth to Water (ft): 16.18

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
10:25	100			0=	22.1	0=	587	4.54	22		
10:35	"			1.87	22.0	↓	590	4.62	12		
10:45	"			1.86	21.9		593	4.71	8.1		
10:54	"			1.88	21.9		594	4.74	6.6		
11:00	"			1.89	21.9		595	4.71	6.5		
			Sampled @ 11:00								

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^{2*}(5*12)^*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: ~~AAW~~ Pro. Cleaners
Ref. No.: 559
Date: 1-19-15
Personnel: B. Costello

Monitoring Well Data:

Well No.: MW-1
Measurement Point:
Constructed Well Depth (ft): 23
Measured Well Depth (ft):
Depth of Sediment (ft):
Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 5' F.B
Well Diameter, D (in): 2"
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 15.80

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
9:05	~150	15.78		2.61	18.3	Purge	105	6.71	5.3		
9:15	↓	15.84		2.58	15.2	"	108	8.65	5.3		
9:28		15.88		2.57	14.1	"	110	8.57	5.1		
9:40	↓	15.92		2.57	14.1	"	110	8.58	5.1		
	Sampled 9:40										

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p^*(D/2)^{2*}(5*12)^*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: ~~MW-7~~ Rd. Mowers
Ref. No.: 559

Date: 1-19-15
Personnel: BCastellano

Monitoring Well Data:

Well No.: MW-7
Measurement Point:
Constructed Well Depth (ft): 30
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 15'
Depth to Pump Intake (ft)[1]: 5' FB.
Well Diameter, D (in): 1"
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 17.88

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
9:45	~150	17.88	17.90	2.85	15.1	>range	96	8.65	14		
9:53	↓	17.96		2.80	15.0	↓	89	8.59	9.3		
10:00		17.99		2.80	17.5		93	8.58	9.2		
10:10		18.01		2.75	17.8		92	8.58	9.2		
10:20		18.02		2.78	17.8		93	8.58	9.1		
10:25		18.04		2.78	17.8	"	93	8.59	9.0		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing). No. of Well Screen Volumes Purged= Vp/Vs.

APPENDIX B
ANALYTICAL LABORATORY REPORTS

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

November 13, 2014

Brent Cortelloni
Environmental Management Associates, LLC
5262 Belle Wood Court
Buford Georgi30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: Professional Cleaners

Dear Brent Cortelloni: Order No: 1411824

Analytical Environmental Services, Inc. received 1 samples on November 11, 2014 11:30 am for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1411824

Date: _____ Page _____ of _____

COMPANY: EMA/B-

ADDRESS:

PHONE:

FAX:

SAMPLED BY: B. Corbellon

SIGNATURE:

ANALYSIS REQUESTED

PCB

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-1	11-11-14	9:53	X			X		
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: B. Corbellon	11-11-14	1: Lataya Reeves	11/11/14 11:30
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Professional Observers

PROJECT #: 559

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers

Turnaround Time Request
- X Standard 5 Business Days
- O 2 Business Day Rush
- O Next Business Day Rush
- O Same Day Rush **(auth req.)**
- O Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER _____

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 13-Nov-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-1
Project Name:	Professional Cleaners	**Collection Date:**	11/11/2014 9:53:00 AM
Lab ID:	1411824-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	19	5.0		ug/L	199085	1	11/12/2014 13:49	GK
Surr: 4-Bromofluorobenzene	93.8	70.6-123		%REC	199085	1	11/12/2014 13:49	GK
Surr: Dibromofluoromethane	100	78.7-124		%REC	199085	1	11/12/2014 13:49	GK
Surr: Toluene-d8	89.7	81.3-120		%REC	199085	1	11/12/2014 13:49	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EMA/BC Work Order Number 1411824

Checklist completed by Jason B 11/11/14
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.1° Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411824

ANALYTICAL QC SUMMARY REPORT

BatchID: 199085

Sample ID: **MB-199085** Client ID: Units: **ug/L** Prep Date: **11/12/2014** Run No: **279800**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199085** Analysis Date: **11/12/2014** Seq No: **5915391**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411824

ANALYTICAL QC SUMMARY REPORT

BatchID: 199085

Sample ID: **MB-199085** Client ID: Units: **ug/L** Prep Date: **11/12/2014** Run No: **279800**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199085** Analysis Date: **11/12/2014** Seq No: **5915391**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	46.78	0	50.00		93.6	70.6	123				
Surr: Dibromofluoromethane	49.37	0	50.00		98.7	78.7	124				
Surr: Toluene-d8	49.04	0	50.00		98.1	81.3	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411824

ANALYTICAL QC SUMMARY REPORT

BatchID: 199085

Sample ID: **LCS-199085** Client ID: Units: **ug/L** Prep Date: **11/12/2014** Run No: **279800**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199085** Analysis Date: **11/12/2014** Seq No: **5915319**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	46.04	5.0	50.00		92.1	63.1	140				
Benzene	47.51	5.0	50.00		95.0	74.2	129				
Chlorobenzene	46.18	5.0	50.00		92.4	70	129				
Toluene	47.52	5.0	50.00		95.0	74.2	129				
Trichloroethene	48.47	5.0	50.00		96.9	71.2	135				
Surr: 4-Bromofluorobenzene	47.09	0	50.00		94.2	70.6	123				
Surr: Dibromofluoromethane	48.35	0	50.00		96.7	78.7	124				
Surr: Toluene-d8	49.42	0	50.00		98.8	81.3	120				

Sample ID: **1411823-001AMS** Client ID: Units: **ug/L** Prep Date: **11/12/2014** Run No: **279800**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199085** Analysis Date: **11/12/2014** Seq No: **5916176**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	48.19	5.0	50.00		96.4	60.2	159				
Benzene	51.26	5.0	50.00		103	70.2	138				
Chlorobenzene	49.97	5.0	50.00		99.9	70.1	133				
Toluene	52.40	5.0	50.00		105	70	139				
Trichloroethene	53.57	5.0	50.00		107	70.1	144				
Surr: 4-Bromofluorobenzene	46.97	0	50.00		93.9	70.6	123				
Surr: Dibromofluoromethane	49.33	0	50.00		98.7	78.7	124				
Surr: Toluene-d8	50.01	0	50.00		100	81.3	120				

Sample ID: **1411823-001AMSD** Client ID: Units: **ug/L** Prep Date: **11/12/2014** Run No: **279800**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199085** Analysis Date: **11/12/2014** Seq No: **5916177**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	48.83	5.0	50.00		97.7	60.2	159	48.19	1.32	19.2	
Benzene	50.81	5.0	50.00		102	70.2	138	51.26	0.882	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411824

ANALYTICAL QC SUMMARY REPORT

BatchID: 199085

Sample ID: **1411823-001AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** Prep Date: **11/12/2014** Run No: **279800**
BatchID: **199085** Analysis Date: **11/12/2014** Seq No: **5916177**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	49.73	5.0	50.00		99.5	70.1	133	49.97	0.481	20	
Toluene	51.99	5.0	50.00		104	70	139	52.40	0.786	20	
Trichloroethene	53.53	5.0	50.00		107	70.1	144	53.57	0.075	20	
Surr: 4-Bromofluorobenzene	46.60	0	50.00		93.2	70.6	123	46.97	0	0	
Surr: Dibromofluoromethane	49.57	0	50.00		99.1	78.7	124	49.33	0	0	
Surr: Toluene-d8	49.21	0	50.00		98.4	81.3	120	50.01	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

November 18, 2014

Brent Cortelloni
Environmental Management Associates, LLC
5262 Belle Wood Court
Buford Georgi30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: Professional Cleaners

Dear Brent Cortelloni: Order No: 1411B79

Analytical Environmental Services, Inc. received 1 samples on 11/14/2014 10:00:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1411B79

Date: _____ Page _____ of _____

COMPANY: EMA / BC

ADDRESS:

PHONE:

FAX:

SAMPLED BY: B. Costello

SIGNATURE:

ANALYSIS REQUESTED

PCB

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-4	11-14-14	9:40	X		GW	X		
2								Same day	
3									
4								T/A	
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11-14-14/1000	1: Cataya Reeves	11/14/14 10:00a
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION

PROJECT NAME: Professional Chemicals

PROJECT #: 559

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers

Turnaround Time Request
- Standard 5 Business Days
- 2 Business Day Rush
- Next Business Day Rush
- X Same Day Rush **(auth req.)**
- Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 18-Nov-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-4
Lab Order	1411B79	**Tag Number:**	
Project Name:	Professional Cleaners	**Collection Date:**	11/14/2014 9:40:00 AM
Lab ID:	1411B79-001A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Tetrachloroethene	BRL	5.0		ug/L	199151	1	11/14/2014 11:45	GK
Surr: 4-Bromofluorobenzene	91.3	70.6-123		%REC	199151	1	11/14/2014 11:45	GK
Surr: Dibromofluoromethane	97.3	78.7-124		%REC	199151	1	11/14/2014 11:45	GK
Surr: Toluene-d8	95	81.3-120		%REC	199151	1	11/14/2014 11:45	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EMA|BC Work Order Number 1411B79

Checklist completed by Signature MBClk Date 11/14/14

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes ✓	No __	

Cooler #1 3.3 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411B79

ANALYTICAL QC SUMMARY REPORT

BatchID: 199151

Sample ID: **MB-199151** Client ID: Units: **ug/L** Prep Date: **11/13/2014** Run No: **279886**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199151** Analysis Date: **11/13/2014** Seq No: **5917765**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411B79

ANALYTICAL QC SUMMARY REPORT

BatchID: 199151

Sample ID: **MB-199151** Client ID: Units: **ug/L** Prep Date: **11/13/2014** Run No: **279886**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199151** Analysis Date: **11/13/2014** Seq No: **5917765**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	45.97	0	50.00		91.9	70.6	123				
Surr: Dibromofluoromethane	49.03	0	50.00		98.1	78.7	124				
Surr: Toluene-d8	48.97	0	50.00		97.9	81.3	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411B79

ANALYTICAL QC SUMMARY REPORT

BatchID: 199151

Sample ID: **LCS-199151** Client ID: Units: **ug/L** Prep Date: **11/13/2014** Run No: **279886**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199151** Analysis Date: **11/13/2014** Seq No: **5917705**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	47.01	5.0	50.00		94.0	63.1	140				
Benzene	49.28	5.0	50.00		98.6	74.2	129				
Chlorobenzene	48.84	5.0	50.00		97.7	70	129				
Toluene	50.38	5.0	50.00		101	74.2	129				
Trichloroethene	51.14	5.0	50.00		102	71.2	135				
Surr: 4-Bromofluorobenzene	46.79	0	50.00		93.6	70.6	123				
Surr: Dibromofluoromethane	48.90	0	50.00		97.8	78.7	124				
Surr: Toluene-d8	49.19	0	50.00		98.4	81.3	120				

Sample ID: **1411A27-001AMS** Client ID: Units: **ug/L** Prep Date: **11/13/2014** Run No: **279886**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199151** Analysis Date: **11/13/2014** Seq No: **5919735**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	42.91	5.0	50.00		85.8	60.2	159				
Benzene	46.65	5.0	50.00		93.3	70.2	138				
Chlorobenzene	47.05	5.0	50.00		94.1	70.1	133				
Toluene	47.62	5.0	50.00		95.2	70	139				
Trichloroethene	50.62	5.0	50.00	2.080	97.1	70.1	144				
Surr: 4-Bromofluorobenzene	46.37	0	50.00		92.7	70.6	123				
Surr: Dibromofluoromethane	47.44	0	50.00		94.9	78.7	124				
Surr: Toluene-d8	48.63	0	50.00		97.3	81.3	120				

Sample ID: **1411A27-001AMSD** Client ID: Units: **ug/L** Prep Date: **11/13/2014** Run No: **279886**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **199151** Analysis Date: **11/13/2014** Seq No: **5919736**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	43.48	5.0	50.00		87.0	60.2	159	42.91	1.32	19.2	
Benzene	46.05	5.0	50.00		92.1	70.2	138	46.65	1.29	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411B79

ANALYTICAL QC SUMMARY REPORT

BatchID: 199151

Sample ID: **1411A27-001AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** Prep Date: **11/13/2014** Run No: **279886**
BatchID: **199151** Analysis Date: **11/13/2014** Seq No: **5919736**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	46.21	5.0	50.00		92.4	70.1	133	47.05	1.80	20	
Toluene	45.92	5.0	50.00		91.8	70	139	47.62	3.63	20	
Trichloroethene	49.29	5.0	50.00	2.080	94.4	70.1	144	50.62	2.66	20	
Surr: 4-Bromofluorobenzene	47.03	0	50.00		94.1	70.6	123	46.37	0	0	
Surr: Dibromofluoromethane	48.11	0	50.00		96.2	78.7	124	47.44	0	0	
Surr: Toluene-d8	48.65	0	50.00		97.3	81.3	120	48.63	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 04, 2014

Brent Cortelloni
Environmental Management Associates, LLC
5262 Belle Wood Court
Buford Georgi30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: Professional Cleaners

Dear Brent Cortelloni: Order No: 1411N71

Analytical Environmental Services, Inc. received 11 samples on November 28, 2014 12:25 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1411N71

Date: _____ Page _____ of _____

COMPANY: EMA/BC

ADDRESS:

PHONE:

FAX:

SAMPLED BY: P. Kellam / J. Schuller

SIGNATURE:

ANALYSIS REQUESTED

PCE

PRESERVATION (See codes)

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION	REMARKS	No # of Containers
1	MW-2	11-28-14	10:15	X		GW	X		
2	3		0853						
3	5		8:56						
4	6		1023						
5	7		9:31						
6	8		0955						
7	9		0924						
8	10		1055						
9	11		11:00						
10	Dup	"	—	—					
11	Trip Blank								
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/28/14 1225	1: Latoya Reeves	11/28/14 12:25
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Professional Flowers

PROJECT #: 559

SITE ADDRESS:

SEND REPORT TO: Corrections

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers

Turnaround Time Request
- X Standard 5 Business Days
- O 2 Business Day Rush
- O Next Business Day Rush
- O Same Day Rush (auth req.)
- O Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER _____

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-2
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 10:15:00 AM
Lab ID:	1411N71-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/03/2014 18:07	GK
Surr: 4-Bromofluorobenzene	79.5	70.6-123		%REC	200022	1	12/03/2014 18:07	GK
Surr: Dibromofluoromethane	96.3	78.7-124		%REC	200022	1	12/03/2014 18:07	GK
Surr: Toluene-d8	61.4	81.3-120	S	%REC	200022	1	12/03/2014 18:07	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-3
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 8:53:00 AM
Lab ID:	1411N71-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/03/2014 18:37	GK
Surr: 4-Bromofluorobenzene	91.7	70.6-123		%REC	200022	1	12/03/2014 18:37	GK
Surr: Dibromofluoromethane	92.8	78.7-124		%REC	200022	1	12/03/2014 18:37	GK
Surr: Toluene-d8	94.9	81.3-120		%REC	200022	1	12/03/2014 18:37	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-5
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 8:56:00 AM
Lab ID:	1411N71-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/03/2014 23:36	GK
Surr: 4-Bromofluorobenzene	90.6	70.6-123		%REC	200022	1	12/03/2014 23:36	GK
Surr: Dibromofluoromethane	93.8	78.7-124		%REC	200022	1	12/03/2014 23:36	GK
Surr: Toluene-d8	94.4	81.3-120		%REC	200022	1	12/03/2014 23:36	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-6
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 10:23:00 AM
Lab ID:	1411N71-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/04/2014 00:06	GK
Surr: 4-Bromofluorobenzene	88.3	70.6-123		%REC	200022	1	12/04/2014 00:06	GK
Surr: Dibromofluoromethane	95.2	78.7-124		%REC	200022	1	12/04/2014 00:06	GK
Surr: Toluene-d8	96.4	81.3-120		%REC	200022	1	12/04/2014 00:06	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-7
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 9:31:00 AM
Lab ID:	1411N71-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	58	5.0		ug/L	200022	1	12/04/2014 00:36	GK
Surr: 4-Bromofluorobenzene	91.8	70.6-123		%REC	200022	1	12/04/2014 00:36	GK
Surr: Dibromofluoromethane	96.1	78.7-124		%REC	200022	1	12/04/2014 00:36	GK
Surr: Toluene-d8	95.9	81.3-120		%REC	200022	1	12/04/2014 00:36	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-8
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 9:55:00 AM
Lab ID:	1411N71-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/04/2014 01:06	GK
Surr: 4-Bromofluorobenzene	89.9	70.6-123		%REC	200022	1	12/04/2014 01:06	GK
Surr: Dibromofluoromethane	97.9	78.7-124		%REC	200022	1	12/04/2014 01:06	GK
Surr: Toluene-d8	96.8	81.3-120		%REC	200022	1	12/04/2014 01:06	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-9
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 9:24:00 AM
Lab ID:	1411N71-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/04/2014 01:36	GK
Surr: 4-Bromofluorobenzene	91.3	70.6-123		%REC	200022	1	12/04/2014 01:36	GK
Surr: Dibromofluoromethane	94.7	78.7-124		%REC	200022	1	12/04/2014 01:36	GK
Surr: Toluene-d8	95.3	81.3-120		%REC	200022	1	12/04/2014 01:36	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-10
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 10:55:00 AM
Lab ID:	1411N71-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/04/2014 02:06	GK
Surr: 4-Bromofluorobenzene	90.4	70.6-123		%REC	200022	1	12/04/2014 02:06	GK
Surr: Dibromofluoromethane	95.1	78.7-124		%REC	200022	1	12/04/2014 02:06	GK
Surr: Toluene-d8	95.9	81.3-120		%REC	200022	1	12/04/2014 02:06	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-11
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014 11:00:00 AM
Lab ID:	1411N71-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/04/2014 07:23	GK
Surr: 4-Bromofluorobenzene	88.9	70.6-123		%REC	200022	1	12/04/2014 07:23	GK
Surr: Dibromofluoromethane	98.9	78.7-124		%REC	200022	1	12/04/2014 07:23	GK
Surr: Toluene-d8	94.6	81.3-120		%REC	200022	1	12/04/2014 07:23	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	DUP
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014
Lab ID:	1411N71-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/04/2014 02:35	GK
Surr: 4-Bromofluorobenzene	78.4	70.6-123		%REC	200022	1	12/04/2014 02:35	GK
Surr: Dibromofluoromethane	96.7	78.7-124		%REC	200022	1	12/04/2014 02:35	GK
Surr: Toluene-d8	57.8	81.3-120	S	%REC	200022	1	12/04/2014 02:35	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 4-Dec-14

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	TRIP BLANK
Project Name:	Professional Cleaners	**Collection Date:**	11/28/2014
Lab ID:	1411N71-011	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Tetrachloroethene	BRL	5.0		ug/L	200022	1	12/03/2014 23:06	GK
Surr: 4-Bromofluorobenzene	90.1	70.6-123		%REC	200022	1	12/03/2014 23:06	GK
Surr: Dibromofluoromethane	95.8	78.7-124		%REC	200022	1	12/03/2014 23:06	GK
Surr: Toluene-d8	97.2	81.3-120		%REC	200022	1	12/03/2014 23:06	GK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EMA/BC Work Order Number 1411N71

Checklist completed by Joana Pacurar 11/28/14
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (0°≤6°C)*	Yes ✓	No __	

Cooler #1 3.1°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411N71

ANALYTICAL QC SUMMARY REPORT

BatchID: 200022

Sample ID: **MB-200022**	Client ID:	Units: **ug/L**	Prep Date: **12/03/2014**	Run No: **281146**
SampleType: **MBLK**	TestCode: **TCL VOLATILE ORGANICS SW8260B**	BatchID: **200022**	Analysis Date: **12/03/2014**	Seq No: **5951931**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411N71

ANALYTICAL QC SUMMARY REPORT

BatchID: 200022

Sample ID: **MB-200022** Client ID: Units: **ug/L** Prep Date: **12/03/2014** Run No: **281146**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **200022** Analysis Date: **12/03/2014** Seq No: **5951931**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	45.32	0	50.00		90.6	70.6	123				
Surr: Dibromofluoromethane	47.53	0	50.00		95.1	78.7	124				
Surr: Toluene-d8	47.72	0	50.00		95.4	81.3	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411N71

ANALYTICAL QC SUMMARY REPORT

BatchID: 200022

Sample ID: **LCS-200022** Client ID: Units: **ug/L** Prep Date: **12/03/2014** Run No: **281146**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **200022** Analysis Date: **12/03/2014** Seq No: **5951919**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	39.15	5.0	50.00		78.3	64.2	137				
Benzene	45.36	5.0	50.00		90.7	72.8	128				
Chlorobenzene	43.78	5.0	50.00		87.6	72.3	126				
Toluene	46.54	5.0	50.00		93.1	74.9	127				
Trichloroethene	48.98	5.0	50.00		98.0	70.5	134				
Surr: 4-Bromofluorobenzene	45.43	0	50.00		90.9	70.6	123				
Surr: Dibromofluoromethane	46.56	0	50.00		93.1	78.7	124				
Surr: Toluene-d8	47.37	0	50.00		94.7	81.3	120				

Sample ID: **1411N71-001AMS** Client ID: **MW-2** Units: **ug/L** Prep Date: **12/03/2014** Run No: **281146**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **200022** Analysis Date: **12/03/2014** Seq No: **5951920**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	22.79	5.0	50.00		45.6	60.5	156				S
Benzene	45.91	5.0	50.00		91.8	70	135				
Chlorobenzene	45.50	5.0	50.00		91.0	70.5	132				
Toluene	21.41	5.0	50.00		42.8	70.5	137				S
Trichloroethene	45.58	5.0	50.00		91.2	71.8	139				
Surr: 4-Bromofluorobenzene	44.33	0	50.00		88.7	70.6	123				
Surr: Dibromofluoromethane	47.64	0	50.00		95.3	78.7	124				
Surr: Toluene-d8	41.30	0	50.00		82.6	81.3	120				

Sample ID: **1411N71-001AMSD** Client ID: **MW-2** Units: **ug/L** Prep Date: **12/03/2014** Run No: **281146**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **200022** Analysis Date: **12/03/2014** Seq No: **5951921**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	20.24	5.0	50.00		40.5	60.5	156	22.79	11.9	20	S
Benzene	45.97	5.0	50.00		91.9	70	135	45.91	0.131	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1411N71

ANALYTICAL QC SUMMARY REPORT

BatchID: 200022

Sample ID: **1411N71-001AMSD** Client ID: **MW-2** Units: **ug/L** Prep Date: **12/03/2014** Run No: **281146**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **200022** Analysis Date: **12/03/2014** Seq No: **5951921**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	46.21	5.0	50.00		92.4	70.5	132	45.50	1.55	20	
Toluene	19.38	5.0	50.00		38.8	70.5	137	21.41	9.95	20	S
Trichloroethene	44.31	5.0	50.00		88.6	71.8	139	45.58	2.83	20	
Surr: 4-Bromofluorobenzene	44.50	0	50.00		89.0	70.6	123	44.33	0	0	
Surr: Dibromofluoromethane	46.67	0	50.00		93.3	78.7	124	47.64	0	0	
Surr: Toluene-d8	42.00	0	50.00		84.0	81.3	120	41.30	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

January 21, 2015

Brent Cortelloni
Environmental Management Associates, LLC
5262 Belle Wood Court
Buford Georgi30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: Professional Cleaners

Dear Brent Cortelloni: Order No: 1501D52

Analytical Environmental Services, Inc. received 2 samples on 1/19/2015 10:48:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1501052

Date: _____ Page _____ of _____

COMPANY: EMA

ADDRESS:

PHONE:

FAX:

SAMPLED BY: B. Costello

SIGNATURE:

ANALYSIS REQUESTED

PCB

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-1	1-19-15	9:40	X		GW	X		
2	MW-7	1-19-15	10:25	X		GW	X		
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: B	1-19-15/1048	1: Latoya Reeves	1/19/15 10:48
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER GREYHOUND OTHER_____

PROJECT INFORMATION

PROJECT NAME: Professional Cleaners

PROJECT #: 557

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #:_____ PO#:_____

RECEIPT

Total # of Containers

Turnaround Time Request

- (X) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush **(auth req.)**
- ( ) Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 21-Jan-15

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-1
Project Name:	Professional Cleaners	**Collection Date:**	1/19/2015 9:40:00 AM
Lab ID:	1501D52-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	201906	1	01/21/2015 01:30	GC
Surr: 4-Bromofluorobenzene	88.8	70.6-123		%REC	201906	1	01/21/2015 01:30	GC
Surr: Dibromofluoromethane	110	78.7-124		%REC	201906	1	01/21/2015 01:30	GC
Surr: Toluene-d8	93.4	81.3-120		%REC	201906	1	01/21/2015 01:30	GC

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 21-Jan-15

Client:	Environmental Management Associates, LLC	**Client Sample ID:**	MW-7
Project Name:	Professional Cleaners	**Collection Date:**	1/19/2015 10:25:00 AM
Lab ID:	1501D52-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
Tetrachloroethene	BRL	5.0		ug/L	201906	1	01/21/2015 01:54	GC
Surr: 4-Bromofluorobenzene	86.9	70.6-123		%REC	201906	1	01/21/2015 01:54	GC
Surr: Dibromofluoromethane	110	78.7-124		%REC	201906	1	01/21/2015 01:54	GC
Surr: Toluene-d8	82.6	81.3-120		%REC	201906	1	01/21/2015 01:54	GC

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client EMA/BC Work Order Number 1501052

Checklist completed by Ioana Pacurar 1/19/15
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (0°≤6°C)*	Yes ✓	No __	

Cooler #1 3.1°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1501D52

ANALYTICAL QC SUMMARY REPORT

BatchID: 201906

Sample ID: **MB-201906**	Client ID:	Units: **ug/L**	Prep Date: **01/19/2015**	Run No: **283934**
SampleType: **MBLK**	TestCode: **TCL VOLATILE ORGANICS SW8260B**	BatchID: **201906**	Analysis Date: **01/19/2015**	Seq No: **6018898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1501D52

ANALYTICAL QC SUMMARY REPORT

BatchID: 201906

Sample ID: **MB-201906** Client ID: Units: **ug/L** Prep Date: **01/19/2015** Run No: **283934**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **201906** Analysis Date: **01/19/2015** Seq No: **6018898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	46.65	0	50.00		93.3	70.6	123				
Surr: Dibromofluoromethane	52.42	0	50.00		105	78.7	124				
Surr: Toluene-d8	49.61	0	50.00		99.2	81.3	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1501D52

ANALYTICAL QC SUMMARY REPORT

BatchID: 201906

Sample ID: **LCS-201906** Client ID: Units: **ug/L** Prep Date: **01/19/2015** Run No: **283934**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **201906** Analysis Date: **01/19/2015** Seq No: **6018918**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	63.13	5.0	50.00		126	64.2	137				
Benzene	52.30	5.0	50.00		105	72.8	128				
Chlorobenzene	48.55	5.0	50.00		97.1	72.3	126				
Toluene	53.26	5.0	50.00		107	74.9	127				
Trichloroethene	56.88	5.0	50.00		114	70.5	134				
Surr: 4-Bromofluorobenzene	46.15	0	50.00		92.3	70.6	123				
Surr: Dibromofluoromethane	50.81	0	50.00		102	78.7	124				
Surr: Toluene-d8	48.77	0	50.00		97.5	81.3	120				

Sample ID: **1501D52-002AMS** Client ID: **MW-7** Units: **ug/L** Prep Date: **01/19/2015** Run No: **284066**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **201906** Analysis Date: **01/21/2015** Seq No: **6022808**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	66.40	5.0	50.00		133	60.5	156				
Benzene	62.55	5.0	50.00		125	70	135				
Chlorobenzene	57.05	5.0	50.00		114	70.5	132				
Toluene	54.44	5.0	50.00		109	70.5	137				
Trichloroethene	65.14	5.0	50.00		130	71.8	139				
Surr: 4-Bromofluorobenzene	44.72	0	50.00		89.4	70.6	123				
Surr: Dibromofluoromethane	51.47	0	50.00		103	78.7	124				
Surr: Toluene-d8	45.34	0	50.00		90.7	81.3	120				

Sample ID: **1501D52-002AMSD** Client ID: **MW-7** Units: **ug/L** Prep Date: **01/19/2015** Run No: **284066**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **201906** Analysis Date: **01/21/2015** Seq No: **6022809**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	62.57	5.0	50.00		125	60.5	156	66.40	5.94	20	
Benzene	62.39	5.0	50.00		125	70	135	62.55	0.256	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Environmental Management Associates, LLC
Project Name: Professional Cleaners
Workorder: 1501D52

ANALYTICAL QC SUMMARY REPORT

BatchID: 201906

Sample ID: **1501D52-002AMSD** Client ID: **MW-7** Units: **ug/L** Prep Date: **01/19/2015** Run No: **284066**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **201906** Analysis Date: **01/21/2015** Seq No: **6022809**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	56.78	5.0	50.00		114	70.5	132	57.05	0.474	20	
Toluene	51.41	5.0	50.00		103	70.5	137	54.44	5.73	20	
Trichloroethene	64.97	5.0	50.00		130	71.8	139	65.14	0.261	20	
Surr: 4-Bromofluorobenzene	45.36	0	50.00		90.7	70.6	123	44.72	0	0	
Surr: Dibromofluoromethane	52.13	0	50.00		104	78.7	124	51.47	0	0	
Surr: Toluene-d8	46.32	0	50.00		92.6	81.3	120	45.34	0	0	

APPENDIX C

UPDATED COST ESTIMATE

ESTIMATED COSTS
PROFESSIONAL CLEANERS AND LINEN SERVICE
NORCROSS, GEORGIA

	Initial Estimate					Cost to Date	Updated Remaining Costs		
Activity	***Units***	***Unit Cost***	***Sub-Total***				***Units***	***Unit Cost***	***Sub-Total***
Consulting									
VRP Application/Report (completed)			$ 3,300.00						$ -
Additional Groundwater Delineation Investigations[1]			$ 10,000.00						$ -
Semiannual Sampling/Progress Reports [2]			$ 10,000.00						$ -
File Deed Restriction			$ 2,500.00						$ 1,000.00
Voluntary CSR Report			$ 6,800.00						$ -
		sub-total	$ 32,600.00					sub-total	$ 1,000.00
Remediation									
ISCO Remediation			$ 34,000.00	--	$ 46,000.00				
Total Estimate Range			**$ 66,600.00**	**--**	**$ 78,600.00**	**$ 120,350.00**			**$ 1,000.00**

Notes:
1) Originally based on only six wells. A total of 12 wells installed.

PG OVERSIGHT SUMMARY
PROFESSIONAL CLEANERS AND LINEN SERVICE
NORCROSS, GEORGIA

PG Summary of Time	*Units*	*Unit Cost*	*Sub-Total*
5/2/14 to 1/27/15			
3rd Formal injection	15	$ 85.00	$ 1,275.00
Limited Injection	4	$ 85.00	$ 340.00
Prepare Progress Report 4	10	$ 85.00	$ 850.00
		sub-total	$ 2,465.00

INVOICE SUMMARY SINCE LAST SUBMITTAL
PROFESSIONAL CLEANERS AND LINEN SERVICE
NORCROSS, GEORGIA

Invoice	*Amount*	*Scope of Work*
559-1014	$ 24,000.00	Partial Charges for 3rd Formal injection
559-1114	$ 10,000.00	Remaining charges for 3rd Formal injection
559-1214	$ 3,500.00	Semiannual Sampling Event in November 2014
559-0115	$ 3,500.00	Limited Injection around MW-1/MW-7 Area. Resample
	$ 41,000.00	**TOTAL**