



Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
COMPANY NAME	Emory University				
CONTACT PERSON/TITLE	Mr. Scott Thomaston, Associate Director, Environmental Health and Safety Office (Environmental Affairs Officer)				
ADDRESS	1762 Clifton Road, Suite 1200, Atlanta, Georgia 30322				
PHONE	(404) 727-1349	FAX	(404) 727-9778	E-MAIL	scott.thomaston@emory.edu
GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP					
NAME	Mr. Dale P. Voykin	GA PE/PG NUMBER	1220		
COMPANY	URS Corporation				
ADDRESS	1000 Abernathy Road NE, Suite 900, Atlanta, Georgia 30328				
PHONE	(678) 808-8800	FAX	(678) 678-8400	E-MAIL	Dale.Voykin@URS.com
APPLICANT'S CERTIFICATION					
<p>In order to be considered a qualifying property for the VRP:</p> <p>(1) The property must have a release of regulated substances into the environment;</p> <p>(2) The property shall not be:</p> <p style="margin-left: 20px;">(A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.</p> <p style="margin-left: 20px;">(B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or</p> <p style="margin-left: 20px;">(C) A facility required to have a permit under Code Section 12-8-66.</p> <p>(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.</p> <p>(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.</p> <p>In order to be considered a participant under the VRP:</p> <p style="margin-left: 20px;">(1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.</p> <p style="margin-left: 20px;">(2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.</p> <p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, 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.</p> <p>I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.</p>					
APPLICANT'S SIGNATURE					
APPLICANT'S NAME/TITLE (PRINT)	David L. Wynes, Ph.D. Vice President for Research Administration			DATE	12/10/13

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)			
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)			
HSI Number	10121	Date HSI Site listed	1994
HSI Facility Name	Emory University – North Decatur Road Site	NAICS CODE	611310
PROPERTY INFORMATION			
TAX PARCEL ID	18 053 010 Lot 03	PROPERTY SIZE (ACRES)	4.425
PROPERTY ADDRESS	1722 – 1794 N. Decatur Road (north side of road)		
CITY	Druid Hills	COUNTY	DeKalb
STATE	Georgia	ZIPCODE	30307
LATITUDE (decimal format)	33.790267	LONGITUDE (decimal format)	-84.317998
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Emory University	PHONE #	(404) 727-1349
MAILING ADDRESS	1762 Clifton Road Suite 1200		
CITY	Atlanta	STATE/ZIPCODE	Georgia 30322
ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	\$5,000 APPLICATION FEE IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	Check Number 00349342	
2.	WARRANTY DEED(S) FOR QUALIFYING PROPERTY.	Appendix A	
3.	TAX PLAT OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	Appendix A	
4.	ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	Attached	
5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a PROJECTED MILESTONE SCHEDULE for investigation and remediation of the site, and after enrollment as a participant, must update the schedule in each semi-annual status report to the director describing implementation of the plan	Preliminary Remediation Plan, including Milestone Schedule - Appendix C	

	<p>during the preceding period. A Gantt chart format is preferred for the milestone schedule.</p> <p>The following four (4) generic milestones are required in all initial plans with the results reported in the participant's next applicable semi-annual reports to the director. The director may extend the time for or waive these or other milestones in the participant's plan where the director determines, based on a showing by the participant, that a longer time period is reasonably necessary:</p>		
5.a.	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment;	Milestone Schedule - Appendix C	
5.b.	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment;	Milestone Schedule - Appendix C	
5.c.	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and	Milestone Schedule - Appendix C	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	Milestone Schedule - Appendix C	
6.	<p>SIGNED AND SEALED PE/PG CERTIFICATION AND SUPPORTING DOCUMENTATION:</p> <p>"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, <u>et seq.</u>). 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 of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.</p> <p>Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long 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.</p> <p>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."</p> <p><u>Dale P. Voytkin - 1220</u> Printed Name and GA PE/PG Number</p> <p><u>D. Voytkin</u> Signature and Stamp</p> <p style="text-align: center;">  </p>		

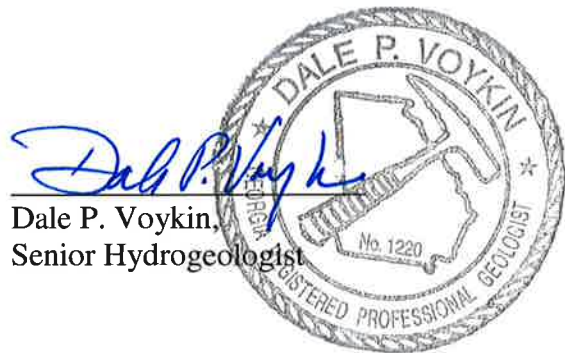
A solid orange vertical bar is positioned on the left side of the page, extending from the top of the text block to the bottom.

**PRELIMINARY REMEDIATION PLAN AND
PRELIMINARY CONCEPTUAL SITE MODEL**

**NORTH DECATUR ROAD/BURLINGTON ROAD
ATLANTA, GEORGIA**

**URS JOB NO. 15263255
JANUARY 13, 2014**

**URS CORPORATION
400 NORTHPARK TOWN CENTER
1000 ABERNATHY ROAD, SUITE 900
ATLANTA, GEORGIA 30328
PHONE: (678) 808-8800**



Dale P. Voykin,
Senior Hydrogeologist

**PRELIMINARY REMEDIATION PLAN AND
PRELIMINARY CONCEPTUAL SITE MODEL**

**NORTH DECATUR ROAD/BURLINGTON ROAD
ATLANTA, GEORGIA**

PREPARED FOR:

EMORY UNIVERSITY

PREPARED BY:

**URS CORPORATION
400 NORTHPARK TOWN CENTER
1000 ABERNATHY ROAD, N.E., SUITE 900
ATLANTA, GEORGIA 30328
PHONE: (678) 808-8800**

URS Job No. 15263255

TABLE OF CONTENTS

1.0 INTRODUCTION.....2

2.0 LEGAL DESCRIPTION.....2

3.0 REMEDIAL ACTIVITIES.....2

3.0 PRELIMINARY 3-D CONCEPTUAL SITE MODEL.....3

 3.1.1 Surface Setting4

 3.2 Subsurface Setting4

 3.3 Regulated Substances.....4

 3.4 Known or Suspected Source Areas.....4

 3.5 Contaminant Migration Pathways.....4

 3.6 Soil and Groundwater Impacts.....5

4.0 ENVIRONMENTAL COVENANT5

5.0 VRP COMPLIANCE STATUS REPORT PREPARATION.....5

6.0 MILESTONE SCHEDULE5

TABLES

Table 1 Groundwater Level Measurements

Table 2 Summary of Groundwater Analytical Results

FIGURES

Figure 1 Site Location Map

Figure 2 Site Layout

Figure 3 June 2012 Potentiometric Map

Figure 4 PCE Concentrations January 2013

Figure 5 PCE Concentrations June 2013

Figure 6 Cross Section Location Map

Figure 7 PCE in Groundwater, Cross Section A-A', January 2013

Figure 8 PCE in Groundwater, Cross Section A-A', June 2013

APPENDICES

Appendix A Warranty Deed and Tax Plat

Appendix B 2013 Groundwater Analytical Data

Appendix C Milestone Schedule

1.0 Introduction

This Preliminary Remediation Plan, including a Preliminary Conceptual Site Model (CSM), has been prepared on behalf of Emory University as part of the Georgia Voluntary Remediation Program (VRP) application submittal for the North Decatur Road/Burlington Road site. The Emory North Decatur Road/Burlington Road site is located at 1784 North Decatur Road in DeKalb County, Decatur, Georgia (Figure 1). The purpose of the Preliminary Remediation Plan and CSM is to provide reasonably available current information to the extent known, as required by the VRP application, with regard to:

- The site's surface and subsurface setting;
- The known or suspected source of contamination;
- How contamination might move within the environment;
- Potential human health and ecological receptors;
- Complete or incomplete exposure pathways that may exist at the site; and,
- A projected milestone schedule for investigation and remediation of the site.

A brief supporting text, tables, and figures are included in this application. Per Section 12-8-107(g)(2) of the VRP Act it is not necessary to perform corrective action or to certify compliance for groundwater at this Property. Accordingly, no delineation standards have been provided.

The Emory North Decatur Road/Burlington Road site is currently listed on the Georgia Hazardous Site Inventory (HSI No. 10121) pursuant to the Hazardous Site Response Act (HSRA) program administered by the Georgia Environmental Protection Division (GAEPD), due to a release of tetrachloroethene (PCE) along with its associated degradation products. Emory has operated a pump and treat groundwater remediation system at the site since 1995. This plan proposes to discontinue the pump and treat remediation and utilize groundwater use controls/limitations and natural attenuation processes to protect human health and the environment.

2.0 Legal Description

The warranty deed and tax plat are included in Appendix A.

3.0 Remedial Activities

In 1989 Emory University purchased property at the intersection of North Decatur and Burlington Roads in Atlanta, Georgia. A subsequent site assessment determined the property had been impacted by a dry cleaning operation that had previously operated at the property prior to Emory's purchase. The assessment detected PCE in the property soils and groundwater. In September 1993, Emory University submitted a Corrective Action Plan (CAP) to Georgia EPD outlining the installation of a soil vapor recovery system (SVE) and groundwater recovery system to remediate the site soils and groundwater, and to meet the applicable risk reduction standards as described in EPD Rule 391-3-19.07. In 1994, the property was subsequently listed on the Georgia Hazardous Site Inventory (HSI).

In 1995, the SVE and groundwater remedial systems were installed in accordance with the original CAP, concurrent with the construction of the computer science building (referred to as the North Decatur Building on the Figures) at the site. The remedial systems consisted of fourteen soil vapor recovery wells and four groundwater recovery wells (RW-1, RW-2, RW-3, and RW-4). Several of the SVE wells were installed beneath the computer science building. The SVE system became fully operational in May 1995, and the groundwater recovery system became fully operational in July 1995. In July 1996, Emory University requested approval from GA EPD to discontinue the operation of the SVE system for soil remediation because the soils at the site met the Type I Risk Reduction Standards (RRS) (as described in

EPD Rule 391-3-19.07). On August 15, 1996, the SVE system operation was shutdown after approval by GA EPD. In August 2000 Emory collected additional soil samples at the site to confirm the soils met the Type I RRS and the soil contamination had been delineated. The analytical results for the six soil samples were below the Georgia Hazardous Site response Act (HSRA) soil notification threshold. The concentrations of tetrachloroethene in the six soil samples were also an order of magnitude below the HSRA Type 1 RRS. The soil vapor extraction carbon cells were removed from the treatment area during October 2001 to complete the shutdown of the SVE system.

In October 2000, Emory University submitted a revised CAP for the remediation of the groundwater at the site. In December 2000 and January 2001, four additional monitoring wells were installed at the site in accordance with the revised October 2000 CAP. The locations of the monitoring wells, MW-1, MW-2, MW-3 (subsequently relabeled as recovery well RW-5), and MW-4, are shown on Figure 2. The installation and construction of the wells were summarized in a report entitled *Well Installation Report, May 15, 2001* that was previously submitted to the Georgia EPD.

The original groundwater recovery system (as installed in 1995) consisted of four groundwater recovery wells (RW-1, RW-2, RW-3, and RW-4) and a groundwater treatment system consisting of an air stripper. In October 2000 a carbon filter system was added to the treatment system to treat vapors from the air stripper. In accordance with the revised October 2000 CAP, the groundwater recovery system was expanded in 2001 by installing an additional recovery well, RW-5 in response to the evaluation of data obtained from the installation of four new monitoring wells (MW-1, MW-2, MW-3, and MW-4). Monitoring well MW-3 was converted to recovery well RW-5 in August 2001. Recovery well RW-4 was converted to a monitoring well in June 2006, after years of being inoperable. Currently, the impacted groundwater is removed by the recovery wells and piped to the treatment system (Figure 2) for treatment by an air stripper and subsequent discharge to the Dekalb County sewer system in accordance with Publicly-Owned Treatment Work Permit No. DK00086. The discharge permit was renewed in 2004 and again in 2007 and 2009. During operation, URS collected influent and effluent water samples and effluent air samples from the carbon filter system.

On October 7, 2002 GA EPD approved sampling both the monitoring and recovery wells, concurrently, on a semi-annual basis. Semi-annual sampling of the monitoring and recovery wells began in 2003. In October 2008, GA EPD approved combining the semi-annual reports into an annual Corrective Action Effectiveness Report and utilizing low-flow sampling techniques on future samplings. In March 2011, GA EPD approved discontinuing laboratory analysis for 1,4-dioxane (as it did not appear to be a constituent of concern), and reducing the frequency of air sampling to a quarterly basis.

3.0 Preliminary 3-D Conceptual Site Model

A preliminary 3-D conceptual site model (CSM) has been developed for the site. The purpose of the conceptual site model is to:

- Integrate technical data from various sources;
- Support the selection of sample locations;
- Identify data needs; and,
- Evaluate risks to human health and the environment.

Development of the Preliminary CSM required consideration of the site setting, regulated substances, suspected source, etc. which are described more fully in the following subsections.

3.1.1 Surface Setting

The surface setting is commercial/university. The site consists of a math building and associated parking lot, a multi-level parking garage, and several large landscaped areas. The property immediately south of the site consists of North Decatur Road and a residential neighborhood. The northern adjacent properties consist of a Georgia Power substation (under construction), a multi-level parking garage, and a new hospital facility that is currently under construction. The property immediately to the west consists of the law library and the property immediately east of the site consists of Burlington Road and a dormitory.

3.2 Subsurface Setting

The site is located in the Piedmont physiographic province of the Appalachian Orogenic Belt, and is underlain by the Clarkston Formation. The Clarkston formation is primarily comprised of mica-schist and amphibolite. The soils at the site are characterized as belonging to the Urban Land Series. This classification indicates that the soils at the site have been significantly altered from their original condition due to the construction activities.

The site soils consist of a tan to reddish brown fine sandy silt grading to dense white to black micaceous silty sand. Bedrock was encountered at depth of 42 feet below land surface (bls) in monitoring well MW-2 and 60 feet bls in recovery well RW-2 (Table 1). Groundwater is generally encountered from 26 feet bls (monitoring well MW-1) to 38 feet bls (RW-4). The direction of groundwater flow is generally to the southwest (Figure 3).

3.3 Regulated Substances

Groundwater remediation and monitoring began at the site in 1995 and is currently ongoing. Based on the groundwater data, the current constituents of concern include PCE and its degradation products trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2 DCE). These COCs were detected in groundwater at the site and are summarized on Table 2.

3.4 Known or Suspected Source Areas

In 1989 Emory University purchased property at the intersection of North Decatur and Burlington Roads in Atlanta, Georgia. A subsequent site assessment determined the property had been impacted by a dry cleaning operation that had previously operated at the property prior to Emory's purchase. The assessment detected PCE in the property soils and groundwater. The dry cleaner building was subsequently removed during the redevelopment of the property and construction of a six story math building. The former dry cleaners were located in front of the current location of the North Decatur Road math building in the vicinity of recovery well RW-2. The footprint of the former strip mall, including the dry cleaners, is shown on Figure 2.

3.5 Contaminant Migration Pathways

A preliminary evaluation of the contaminant migration pathways indicates the following potential pathways:

- horizontal and vertical migration through the soil to the groundwater; and
- horizontal and vertical migration within shallow groundwater, with transport driven by hydraulic properties of the local groundwater flow system, and the direction of groundwater flow as influenced by the active pump and treat remediation system.

A final evaluation of the contaminant migration pathways will be performed during the implementation of the Preliminary Remediation Plan and included in the VRP Compliance Status Report (CSR).

3.6 Soil and Groundwater Impacts

The extent of groundwater impacts has been compiled for this report. The impacts to groundwater are summarized on Table 2 and shown on Figure 4 (January 2013 sample results) and Figure 5 (June 2013 sample results) in plan view and in cross-sectional view on Figure 7 (January 2013 sample results) and Figure 8 (June 2013 sample results). The line of section for these maps is provided on Figure 6 (Cross Section Location Map). The laboratory reports for the 2013 sampling events is included in Appendix B.

4.0 Environmental Covenant

An environmental covenant will be prepared and executed pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, et seq. The environmental covenant will be prepared and implemented prior to the submittal of the VRP CSR. The environmental covenant will subject the site to groundwater use activity and/or use limitations to protect human health and the environment. The covenant will be filed with the DeKalb County Recorders of Deeds and a stamped copy of the environmental covenant will be provided to EPD within thirty (30) days of recording.

5.0 VRP Compliance Status Report Preparation

The following activities will be completed at the site in order to prepare the VRP CSR for the site.

5.1 Potential Human Health and Ecological Receptor Evaluation

A preliminary evaluation of potential receptors, including tentatively identified groundwater users, occupants of nearby structures due to potential vapor intrusion, and surface water bodies which may receive groundwater discharge. An updated water well survey will be performed to refine potential groundwater receptors. Similarly, surface water bodies in the vicinity of the site will be identified and assessed. Based on these surveys, potential human and ecological receptors will be identified to determine if any potentially complete pathways are present at or adjacent to the site. A description of potentially complete and incomplete exposure pathways will be presented in the VRP CSR, as necessary.

5.2 Fate and Transport Pathways

Based on the results of the receptor survey, fate and transport modeling utilizing the Johnson and Ettinger Vapor Intrusion Model and the BioChlor groundwater model will be conducted. The results of any modeling, along with supporting backup, will be incorporated into the VRP CSR, as necessary.

5.3 Recalculation of Risk Based Clean-up Standards

The development of the Risk Reduction Standards (RRS) for the site will be completed based on the results of the exposure assessment and fate and transport modeling. The revised RRS will be presented in the VRP CSR, as necessary.

6.0 Milestone Schedule

A milestone schedule is included in Appendix C.

TABLES

Table 1
 Groundwater Level Measurements
 Emory University North Decatur/Burlington Road Site
 HSI Site No. 10121
 Atlanta, Georgia

Well	Top of Casing Elevation (feet)	Well Depth (feet bls)	Screened Interval (feet bls)	2/08/02 Depth To Water (feet)	2/08/02 Groundwater Elevation (feet msl)	5/02/02 Depth To Water (feet)	5/02/02 Groundwater Elevation (feet msl)	7/10/02 Depth To Water (feet)	7/10/02 Groundwater Elevation (feet, msl)	10/18/02 Depth To Water (feet)	10/18/02 Groundwater Elevation (feet, msl)	1/29/03 Depth To Water (feet)	1/29/03 Groundwater Elevation (feet, msl)	6/19/03 Depth To Water (feet)	6/19/03 Groundwater Elevation (feet, msl)	1/15/04 Depth To Water (feet)	1/15/04 Groundwater Elevation (feet, msl)	6/18/04 Depth To Water (feet)	6/18/04 Groundwater Elevation (feet, msl)	1/28/05 Depth To Water (feet)	1/28/05 Groundwater Elevation (feet, msl)	6/20/06 Depth To Water (feet)	6/20/06 Groundwater Elevation (feet, msl)	2/28/07 Depth To Water (feet)
RW-1	968.90	60.0	40-60	57.17	911.73	56.91	911.99	56.98	911.92	57.05	854.68	57.70	911.20	57.06	911.84	58.10	910.80	57.27	911.63	58.90	910.00	54.8	914.10	55.30
RW-2	970.34	60.0	40-60	BMP		48.90	921.44	BMP		BMP		59.05	911.29	54.00	916.34	55.65	914.69	55.18	915.16	56.72	913.62	55.95	914.39	55.40
RW-3	968.35	55.0	35-55	BMP		52.75	915.60	52.29	916.06	41.06	927.29	58.30	910.05	52.60	915.75	52.44	915.91	52.61	915.74	51.80	916.55	52.4	915.95	51.20
RW-4	968.63	55.0	35-55	BMP		44.62	924.01	BMP		BMP		BMP		BMP		42.63	926.00	NM		nm		40.5	928.13	41.45
RW-5	962.64	60.0	50-60	51.21	911.43	41.21	921.43	44.84	917.80	51.75	859.68	BMP		58.10	904.54	57.39	905.25	56.65	905.99	56.69	905.95	55.3	907.34	37.85
MW-1	954.59	45.0	35-45	28.71	925.88	29.23	925.36	29.12	925.47	29.28	896.60	28.77	925.82	26.00	928.59	25.75	928.84	26.33	928.26	26.33	928.26	23.75	930.84	24.25
MW-2	968.82	42.0	32-42	36.73	932.09	36.78	932.04	36.18	932.64	37.09	895.00	35.37	933.45	31.98	936.84	33.37	935.45	33.97	934.85	33.69	935.13	31.1	937.72	33.50
MW-4	954.35	48.0	38-48	37.00	917.35	36.94	917.41	36.58	917.77	37.34	880.01	36.63	917.72	35.08	919.27	34.33	920.02	34.52	919.83	34.55	919.80	31.85	922.50	33.20
TP-1	968.86	45.00	35-45	42.41	926.45	42.72	926.14	42.58	926.28	42.85	883.60	42.51	926.35	40.85	928.01	39.96	928.90	40.21	928.65	41.56	927.30	42.25	926.61	41.75
TP-2	963.36	40.0	30-40	DRY		DRY		BMP		DRY		DRY		DRY		Dry		Dry		Dry		Dry		Dry
TP-3	958.70	40.0	30-40	39.75	918.95	38.60	920.10	39.82	918.88	38.91	880.04	38.50	920.20	39.87	918.83	38.78	919.92	38.89	919.81	39.10	919.60	Damaged		Damaged
TP-4	966.30	45.0	35-45	DRY		43.68	922.62	BMP		BMP		DRY		DRY		43.82	922.48	Dry		dry		Dry		Dry
TP-5	956.27	58.0	34-58	35.00	921.27	34.71	921.56	35.13	921.14	34.78	886.49	34.09	922.18	34.36	921.91	33.16	923.11	33.57	922.70	33.17	923.10	33.4	922.87	33.10

NM - Not measured

NG - Not gauged due to pump and wiring obstructing well

Table 1
 Groundwater Level Measurements
 Emory University North Decatur/Burlington Road Site
 HSI Site No. 10121
 Atlanta, Georgia

2/28/07 Groundwater Elevation (feet, msl)	6/19/07 Depth To Water (feet)	6/19/07 Groundwater Elevation (feet, msl)	3/1/08 Depth To Water (feet)	3/1/08 Groundwater Elevation (feet, msl)	6/27/08 Depth To Water (feet)	6/27/08 Groundwater Elevation (feet, msl)	3/11/09 Depth To Water (feet)	3/11/09 Groundwater Elevation (feet, msl)	6/30/09 Depth To Water (feet)	6/30/09 Groundwater Elevation (feet, msl)	1/22/10 Depth To Water (feet)	1/22/10 Groundwater Elevation (feet, msl)	7/8/10 Depth To Water (feet)	7/8/10 Groundwater Elevation (feet, msl)	6/27/11 Depth To Water (feet)	6/27/11 Groundwater Elevation (feet, msl)	01/04/12 Depth To Water (feet)	01/04/12 Groundwater Elevation (feet, msl)	06/26/12 Depth To Water (feet)	06/26/12 Groundwater Elevation (feet, msl)	01/9/13 Depth To Water (feet)	01/9/13 Groundw ater Elevation	06/26/13 Depth To Water (feet)	06/26/13 Groundw ater Elevation
913.60	55.7	913.20	55.6	913.30	55.65	913.25	55.60	913.30	55.65	913.25	54.5	914.40	54.2	914.70	35.60	933.30	NG	-	NG	-	NG		NG	
914.94	57	913.34	58.4	911.94	57.5	912.84	58.4	911.94	57.5	912.84	56.2	914.14	38.9	931.44	40.50	929.84	NG	-	NG	-	NG		NG	
917.15	53.8	914.55	55	913.35	54.3	914.05	54.97	913.38	54.3	914.05	56.75	911.60	56.5	911.85	35.40	932.95	NG	-	NG	-	NG		NG	
927.18	41.53	927.10	42.3	926.33	42.8	925.83	42.3	926.33	42.8	925.83	40.17	928.46	40.35	928.28	36.43	932.20	38.18	930.45	39.47	929.16	40.79	927.84	38.12	930.51
924.79	38.0	924.64	38.9	923.74	40.92	921.72	38.9	923.74	40.92	921.72	37.3	925.34	24.74	937.90	35.45	927.19	37.43	925.21	38.22	924.42	39.06	923.58	37.42	925.22
930.34	26.71	927.88	27.1	927.49	29.69	924.90	27.1	927.49	29.69	924.90	25.6	928.99	23.29	931.30	23.10	931.49	27.54	927.05	27.85	926.74	28.17	926.42	26.20	928.39
935.32	34.05	934.77	34.7	934.12	38.48	930.34	34.7	934.12	38.48	930.34	33.65	935.17	30.72	938.10	32.10	936.72	35.16	933.66	36.40	932.42	37.68	931.14	35.46	933.36
921.15	33.56	920.79	35.6	918.75	37.39	916.96	35.6	918.75	37.39	916.96	33.5	920.85	30.8	923.55	32.15	922.20	34.70	919.65	35.68	918.67	36.71	917.64	35.32	919.03
927.11	42.55	926.31	43.5	925.36	40.92	927.94	43.5	925.36	40.92	927.94	43.25	925.61	44.1	924.76	32.18	936.68	NM		NM		NM		NM	
	Dry		Dry		Dry		Dry		Dry		Dry		Dry		NM		NM		NM		NM		NM	
	Damaged		Damaged		Damaged		Damaged		Damaged		Damaged		Damaged		Damaged		Damaged		Damaged		Damaged		Damaged	
	Dry		Dry		Dry		Dry		Dry		Dry		Dry		Dry		Dry		Dry		Dry		Dry	
923.17	33.4	922.87	34.7	921.57	34.7	921.57	34.70	921.57	34.70	921.57	35.5	920.77	36.25	920.02	28.20	928.07	NM		NM		NM		NM	

Table 2
Summary of Groundwater Analytical Results
Emory University North Decatur/Burlington Road Site
HSI Site No. 10121
Atlanta, Georgia

Well Number	Sample Date	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	CIS-1,2-DCE (µg/L)	TRANS-1,2-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,4-DIOXANE (µg/L)
MW-3/RW-5*	02/05/01	65	BRL	BRL	BRL	BRL	BRL	NA
	07/18/01	78	BRL	BRL	BRL	BRL	BRL	NA
	11/06/01	89.2	BRL	BRL	BRL	BRL	BRL	NA
	02/14/02	90	BRL	BRL	BRL	BRL	BRL	NA
	07/10/02	66.6	BRL	BRL	BRL	BRL	BRL	NA
	01/29/03	43.1	BRL	BRL	BRL	BRL	BRL	NA
	06/19/03	75	BRL	BRL	BRL	BRL	BRL	NA
	01/15/04	53	BRL	BRL	BRL	BRL	BRL	NA
	06/18/04	56	BRL	BRL	BRL	BRL	BRL	NA
	01/28/05	47	BRL	BRL	BRL	BRL	BRL	NA
	07/01/05	40	BRL	BRL	BRL	BRL	BRL	NA
	02/01/06	57	BRL	BRL	BRL	BRL	BRL	NA
	06/20/06	66	BRL	BRL	BRL	BRL	BRL	NA
	02/28/07	50	BRL	BRL	BRL	BRL	BRL	NA
	06/19/07	14	BRL	BRL	120	BRL	BRL	NA
	03/01/08	39	BRL	BRL	BRL	BRL	BRL	BRL
	06/27/08	44	BRL	BRL	BRL	BRL	BRL	BRL
	03/11/09	40	BRL	BRL	BRL	BRL	BRL	BRL
	06/30/09	66	BRL	BRL	BRL	BRL	BRL	BRL
	01/22/10	71	BRL	BRL	BRL	BRL	BRL	BRL
07/08/10	73	BRL	BRL	BRL	BRL	BRL	BRL	
06/27/11	160	BRL	BRL	BRL	BRL	BRL	NA	
01/04/12	190	BRL	BRL	BRL	BRL	BRL	NA	
06/27/12	200	BRL	BRL	BRL	BRL	BRL	NA	
01/10/13	230	BRL	BRL	BRL	BRL	BRL	NA	
06/27/13	150	BRL	BRL	BRL	BRL	BRL	NA	

Table 2
Summary of Groundwater Analytical Results
Emory University North Decatur/Burlington Road Site
HSI Site No. 10121
Atlanta, Georgia

Well Number	Sample Date	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	CIS-1,2-DCE (µg/L)	TRANS-1,2-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,4-DIOXANE (µg/L)
RW-1	Jun-98	8.4	NA	NA	NA	NA	NA	NA
	Jun-98	NS	NS	NS	NS	NS	NS	NS
	01/08/99	BRL	NA	NA	NA	NA	NA	NA
	07/09/99	12.4	NA	NA	NA	NA	NA	NA
	07/27/99	NS	NS	NS	NS	NS	NS	NS
	01/06/00	20	NA	NA	NA	NA	NA	NA
	07/07/00	56.4	NA	NA	NA	NA	NA	NA
	02/05/01	59.0	BRL	BRL	BRL	BRL	BRL	NA
	07/18/01	NS	NS	NS	NS	NS	NS	NS
	08/06/01	27	BRL	BRL	BRL	BRL	BRL	NA
	11/06/01	NS	NS	NS	NS	NS	NS	NS
	02/14/02	85.4	BRL	BRL	BRL	BRL	BRL	NA
	07/10/02	107	BRL	BRL	BRL	BRL	BRL	NA
	01/29/03	144	BRL	BRL	BRL	BRL	BRL	NA
	06/19/03	170	BRL	BRL	BRL	BRL	BRL	NA
	01/15/04	200	BRL	BRL	BRL	BRL	BRL	NA
	06/18/04	200	BRL	BRL	BRL	BRL	BRL	NA
	01/28/05	190	BRL	BRL	BRL	BRL	BRL	NA
	07/01/05	190	BRL	BRL	BRL	BRL	BRL	NA
	02/01/06	140	BRL	BRL	BRL	BRL	BRL	NA
	06/20/06	160	BRL	BRL	BRL	BRL	BRL	NA
	02/28/07	110	BRL	BRL	BRL	BRL	BRL	NA
	06/19/07	160	BRL	BRL	BRL	BRL	BRL	NA
	03/01/08	90	BRL	BRL	BRL	BRL	BRL	BRL
	06/27/08	130	BRL	BRL	BRL	BRL	BRL	BRL
	03/11/09	99	BRL	BRL	BRL	BRL	BRL	BRL
	06/30/09	120	BRL	BRL	BRL	BRL	BRL	BRL
	01/22/10	170	BRL	BRL	BRL	BRL	BRL	BRL
07/08/10	200	BRL	BRL	BRL	BRL	BRL	BRL	
06/27/11	180	BRL	BRL	BRL	BRL	BRL	NA	
01/04/12	150	BRL	BRL	BRL	BRL	BRL	NA	
06/27/12	130	BRL	BRL	BRL	BRL	BRL	NA	
01/10/13	120	BRL	BRL	BRL	BRL	BRL	NA	
06/27/13	110	BRL	BRL	BRL	BRL	BRL	NA	

Table 2
Summary of Groundwater Analytical Results
Emory University North Decatur/Burlington Road Site
HSI Site No. 10121
Atlanta, Georgia

Well Number	Sample Date	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	CIS-1,2-DCE (µg/L)	TRANS-1,2-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,4-DIOXANE (µg/L)
RW-2	Jun-98	127	NA	NA	NA	NA	NA	NA
	Jun-98	150	NA	NA	NA	NA	NA	NA
	01/08/99	270	NA	NA	NA	NA	NA	NA
	07/09/99	55	NA	NA	NA	NA	NA	NA
	07/27/99	NS	NS	NS	NS	NS	NS	NS
	01/06/00	197	NA	NA	NA	NA	NA	NA
	07/07/00	382	NA	NA	NA	NA	NA	NA
	02/05/01	549	BRL	BRL	BRL	BRL	BRL	NA
	07/18/01	NS	NS	NS	NS	NS	NS	NS
	08/06/01	119	BRL	BRL	BRL	BRL	BRL	NA
	11/06/01	NS	NS	NS	NS	NS	NS	NS
	02/14/02	NS	NS	NS	NS	NS	NS	NS
	07/10/02	710	2.2	NS	NS	NS	NS	NS
	01/29/03	138	2.1	BRL	1.5	BRL	BRL	NA
	06/19/03	630	1.0	BRL	2.0	BRL	BRL	NA
	01/15/04	890	BRL	BRL	BRL	BRL	BRL	NA
	06/18/04	650	BRL	BRL	BRL	BRL	BRL	NA
	01/28/05	490	BRL	BRL	BRL	BRL	BRL	NA
	07/01/05	860	BRL	BRL	BRL	BRL	BRL	NA
	02/01/06	970	BRL	BRL	BRL	BRL	BRL	NA
	06/20/06	1,000	BRL	BRL	BRL	BRL	BRL	NA
	02/28/07	440	BRL	BRL	BRL	BRL	BRL	NA
	06/19/07	780	5.7	BRL	8.1	BRL	BRL	NA
	03/01/08	300	BRL	BRL	BRL	BRL	BRL	BRL
	06/27/08	460	120	BRL	190	BRL	BRL	BRL
	03/11/09	NS	NS	NS	NS	NS	NS	NS
	06/30/09	NS	NS	NS	NS	NS	NS	NS
	01/22/10	NS	NS	NS	NS	NS	NS	NS
	07/08/10	1,200	13	BRL	27	BRL	BRL	BRL
	06/27/11	NS	NS	NS	NS	NS	NS	NS
01/04/12	790	9.5	BRL	25	BRL	BRL	NA	
06/27/12	570	BRL	BRL	11	BRL	BRL	NA	
01/10/13	37	BRL	BRL	90	BRL	BRL	NA	
06/27/13	490	BRL	BRL	12	BRL	BRL	NA	

Table 2
Summary of Groundwater Analytical Results
Emory University North Decatur/Burlington Road Site
HSI Site No. 10121
Atlanta, Georgia

Well Number	Sample Date	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	CIS-1,2-DCE (µg/L)	TRANS-1,2-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,4-DIOXANE (µg/L)
RW-3	Jun-98	6.9	NA	NA	NA	NA	NA	NA
	Jun-98	NS	NS	NS	NS	NS	NS	NS
	01/08/99	6.8	NA	NA	NA	NA	NA	NA
	07/09/99	8.8	NA	NA	NA	NA	NA	NA
	07/27/99	NS	NS	NS	NS	NS	NS	NS
	01/06/00	8.0	NA	NA	NA	NA	NA	NA
	07/07/00	35.9	NA	NA	NA	NA	NA	NA
	02/05/01	39	BRL	BRL	BRL	BRL	BRL	NA
	07/18/01	NS	NS	NS	NS	NS	NS	NS
	08/06/01	27.1	BRL	BRL	BRL	BRL	BRL	NA
	11/06/01	NS	NS	NS	NS	NS	NS	NS
	02/14/02	27.7	BRL	BRL	BRL	BRL	BRL	NA
	07/10/02	31.5	BRL	BRL	BRL	BRL	BRL	NA
	01/29/03	55.4	BRL	BRL	BRL	BRL	BRL	NA
	06/19/03	58	BRL	BRL	BRL	BRL	BRL	NA
	01/15/04	57	BRL	BRL	BRL	BRL	BRL	NA
	06/18/04	71	BRL	BRL	BRL	BRL	BRL	NA
	01/28/05	38	BRL	BRL	BRL	BRL	BRL	NA
	07/01/05	91	BRL	BRL	BRL	BRL	BRL	NA
	02/01/06	53	BRL	BRL	BRL	BRL	BRL	NA
	06/20/06	70	BRL	BRL	BRL	BRL	BRL	NA
	02/28/07	33	BRL	BRL	BRL	BRL	BRL	NA
	06/19/07	71	BRL	BRL	BRL	BRL	BRL	NA
	03/01/08	38	BRL	BRL	BRL	BRL	BRL	BRL
	06/27/08	67	BRL	BRL	BRL	BRL	BRL	BRL
	03/11/09	55	BRL	BRL	BRL	BRL	BRL	BRL
	06/30/09	71	BRL	BRL	BRL	BRL	BRL	BRL
	01/22/10	84	BRL	BRL	BRL	BRL	BRL	BRL
	07/08/10	130	BRL	BRL	BRL	BRL	BRL	BRL
	06/27/11	NS	NS	NS	NS	NS	NS	NS
01/04/12	NS	NS	NS	NS	NS	NS	NS	
06/27/12	50	BRL	BRL	BRL	BRL	BRL	NA	
01/10/13	54	BRL	BRL	BRL	BRL	BRL	NA	
06/27/13	85	BRL	BRL	BRL	BRL	BRL	NA	

Table 2
Summary of Groundwater Analytical Results
Emory University North Decatur/Burlington Road Site
HSI Site No. 10121
Atlanta, Georgia

Well Number	Sample Date	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	CIS-1,2-DCE (µg/L)	TRANS-1,2-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,4-DIOXANE (µg/L)
RW-4**	Jun-98	19	NA	NA	NA	NA	NA	NA
	Jun-98	25	NA	NA	NA	NA	NA	NA
	01/08/99	57	NA	NA	NA	NA	NA	NA
	07/09/99	225	NA	NA	NA	NA	NA	NA
	07/27/99	187	NA	NA	NA	NA	NA	NA
	01/06/00	128	NA	NA	NA	NA	NA	NA
	07/07/00	189	NA	NA	NA	NA	NA	NA
	02/05/01	174	BRL	BRL	BRL	BRL	BRL	NA
	07/18/01	NS	NS	NS	NS	NS	NS	NS
	08/06/01	253	BRL	BRL	BRL	BRL	BRL	NA
	11/06/01	NS	NS	NS	NS	NS	NS	NS
	02/14/02	NS	NS	NS	NS	NS	NS	NS
	07/10/02	NS	NS	NS	NS	NS	NS	NS
	01/29/03	NS	NS	NS	NS	NS	NS	NS
	06/19/03	NS	NS	NS	NS	NS	NS	NS
	01/15/04	NS	NS	NS	NS	NS	NS	NS
	06/18/04	NS	NS	NS	NS	NS	NS	NS
	01/28/05	NS	NS	NS	NS	NS	NS	NS
	07/01/05	NS	NS	NS	NS	NS	NS	NS
	02/01/06	NS	NS	NS	NS	NS	NS	NS
	06/20/06	980	BRL	BRL	BRL	BRL	BRL	NA
	02/28/07	540	BRL	BRL	BRL	BRL	BRL	NA
	06/19/07	640	BRL	BRL	BRL	BRL	BRL	NA
	03/01/08	370	BRL	BRL	BRL	BRL	BRL	BRL
	06/27/08	380	BRL	BRL	BRL	BRL	BRL	BRL
	03/11/09	640	BRL	BRL	BRL	BRL	BRL	BRL
	06/30/09	220	BRL	BRL	BRL	BRL	BRL	BRL
	01/22/10	360	BRL	BRL	BRL	BRL	BRL	BRL
	07/09/10	420	BRL	BRL	BRL	BRL	BRL	BRL
	06/27/11	270	BRL	BRL	BRL	BRL	BRL	NA
01/04/12	150	BRL	BRL	BRL	BRL	BRL	NA	
06/27/12	160	BRL	BRL	BRL	BRL	BRL	NA	
01/10/13	93	BRL	BRL	BRL	BRL	BRL	NA	
06/26/13	68	BRL	BRL	BRL	BRL	BRL	NA	

Table 2
Summary of Groundwater Analytical Results
Emory University North Decatur/Burlington Road Site
HSI Site No. 10121
Atlanta, Georgia

Well Number	Sample Date	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	CIS-1,2-DCE (µg/L)	TRANS-1,2-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,4-DIOXANE (µg/L)
-------------	-------------	---------------	---------------	-------------------	-----------------------	-------------------------	--------------------------	-----------------------

Notes:

µg/L – micrograms per liter or parts per billion

BRL – Not detected above laboratory method reporting limits

NA – Not analyzed

NS – Not sampled

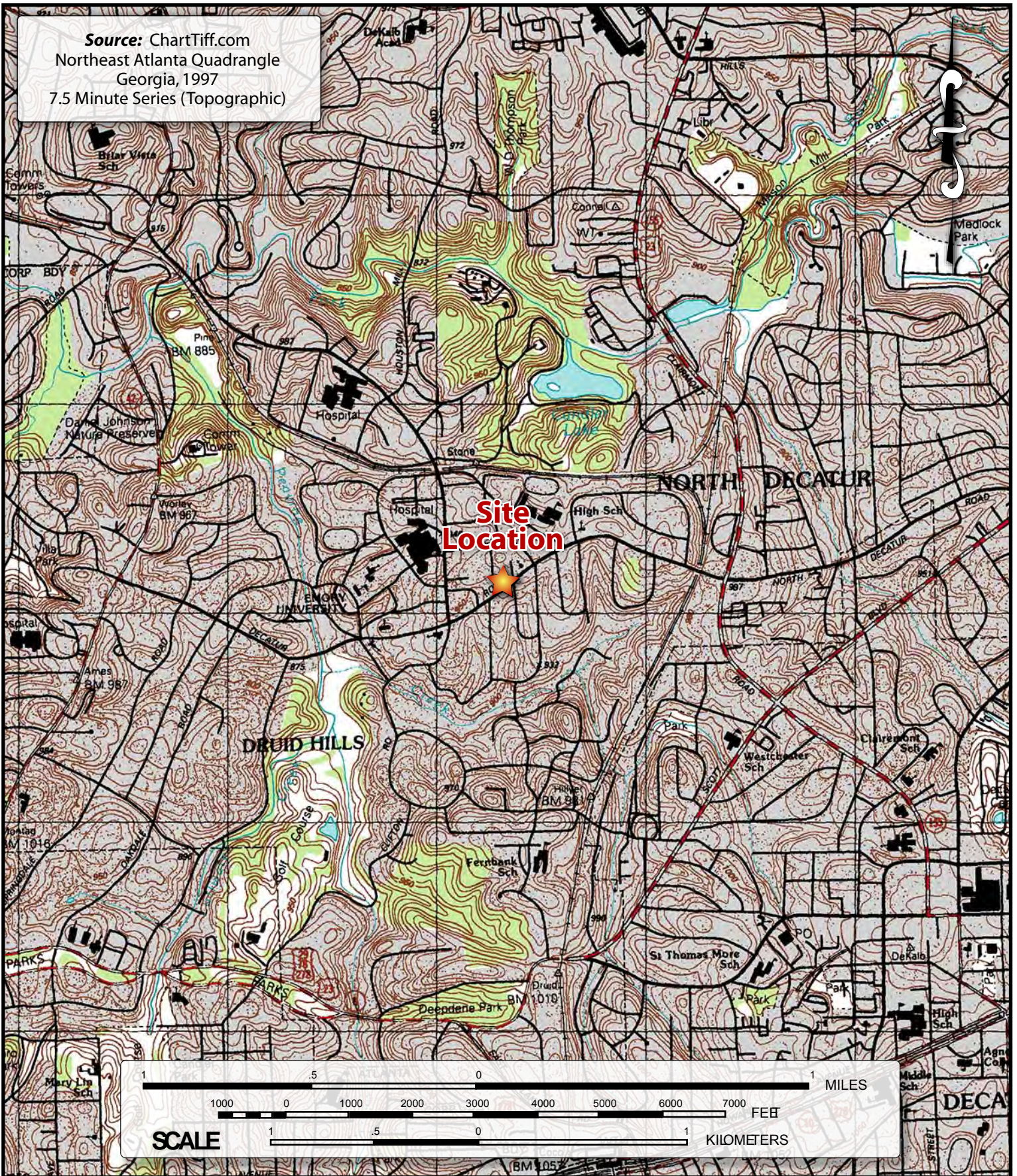
Monitoring wells MW-1, -2, -3, and -4 were installed between December 2000 and January 2001

* – MW-3 was converted to recovery well RW-5 and became operational on August 6, 2001

** – RW-4 was converted to a monitoring well on June 14, 2006

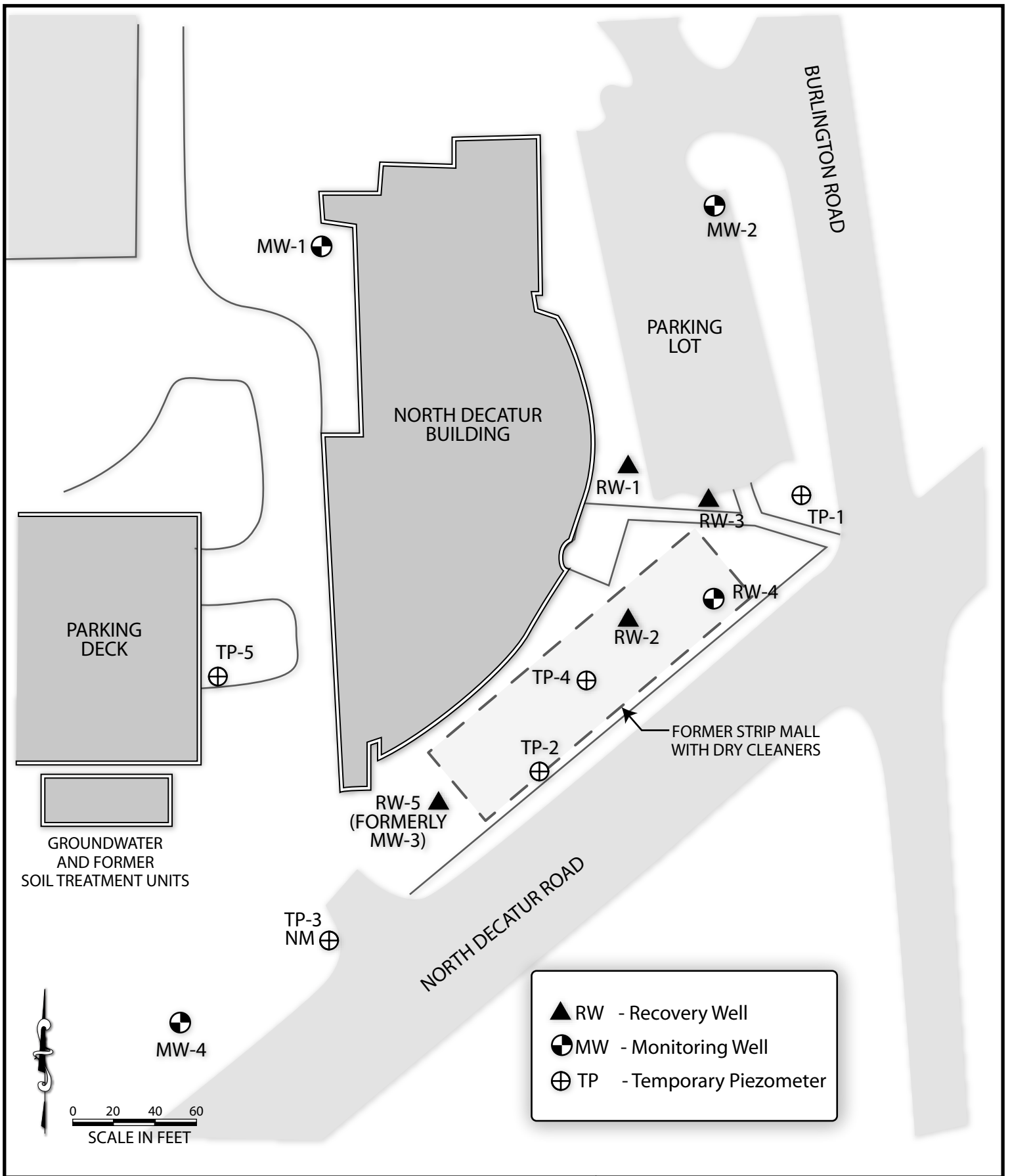
FIGURES


Source: ChartTiff.com
 Northeast Atlanta Quadrangle
 Georgia, 1997
 7.5 Minute Series (Topographic)

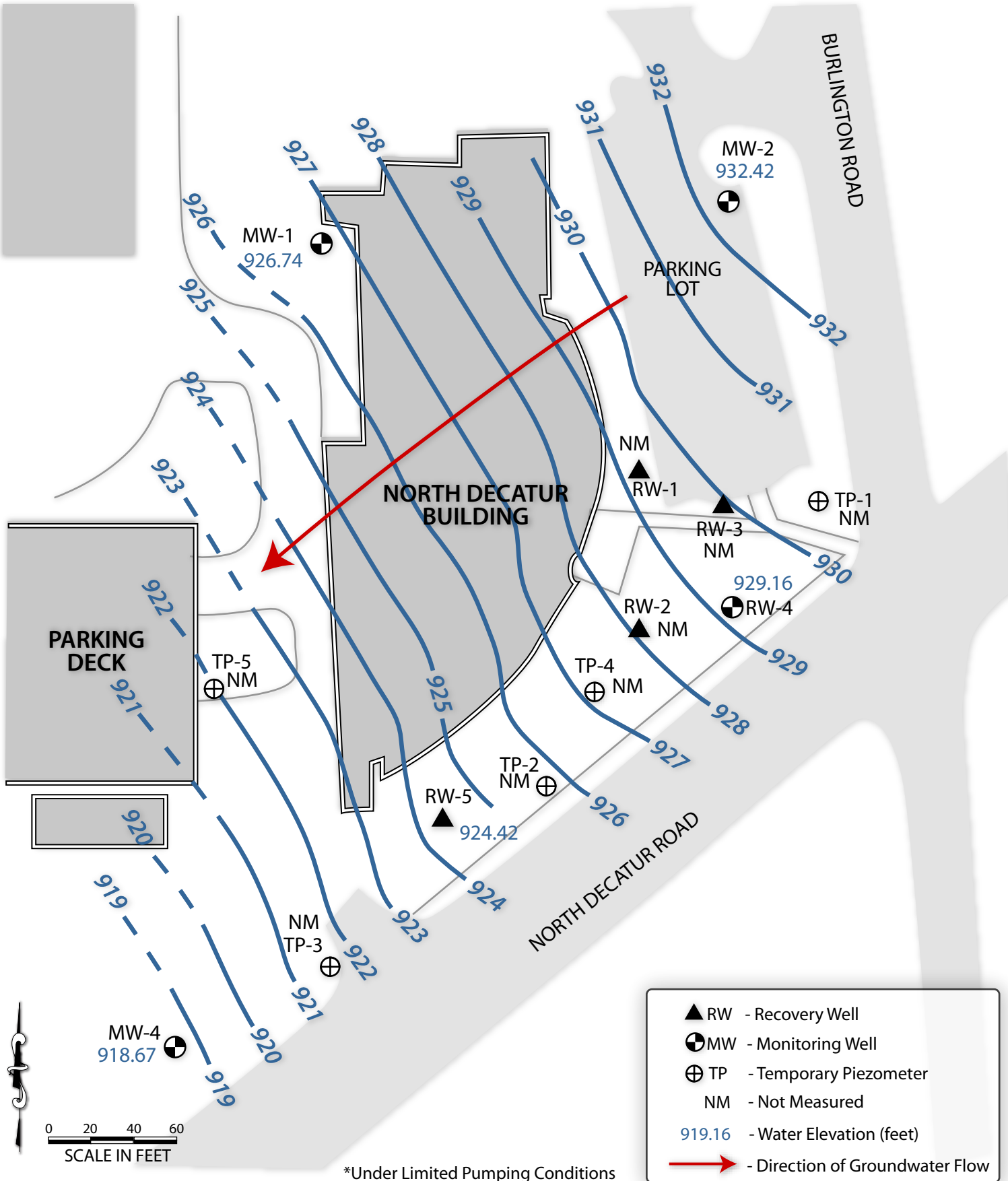


CLIENT:	Emory University	
PROJECT:	North Decatur Road Site, Atlanta, Georgia	
DATE:	January 2014	DESIGNED BY:
SCALE:	1:24,000	DRAWN BY:
FILE:	H:\proj\EmoryUniversity\Jan2014\SiteLocationMap.ai	CHECKED BY:
		J. Gross
		B. Jacobs

TITLE:	Site Location Map
PROJ NO.:	15263255
TASK:	01150
FIGURE:	1



CLIENT: Emory University		TITLE: Site Layout		
PROJECT: North Decatur Road Site, Atlanta, Georgia				
DATE: January 2014	DESIGNED BY:			PROJ. NO.: 15263255
SCALE: 1" = 60'	DRAWN BY: J. Gross			TASK: 01150
FILE: H:\proj\Emory University\Jan2014\SiteLayout.ai	CHECKED BY: B. Jacobs			FIGURE: 2

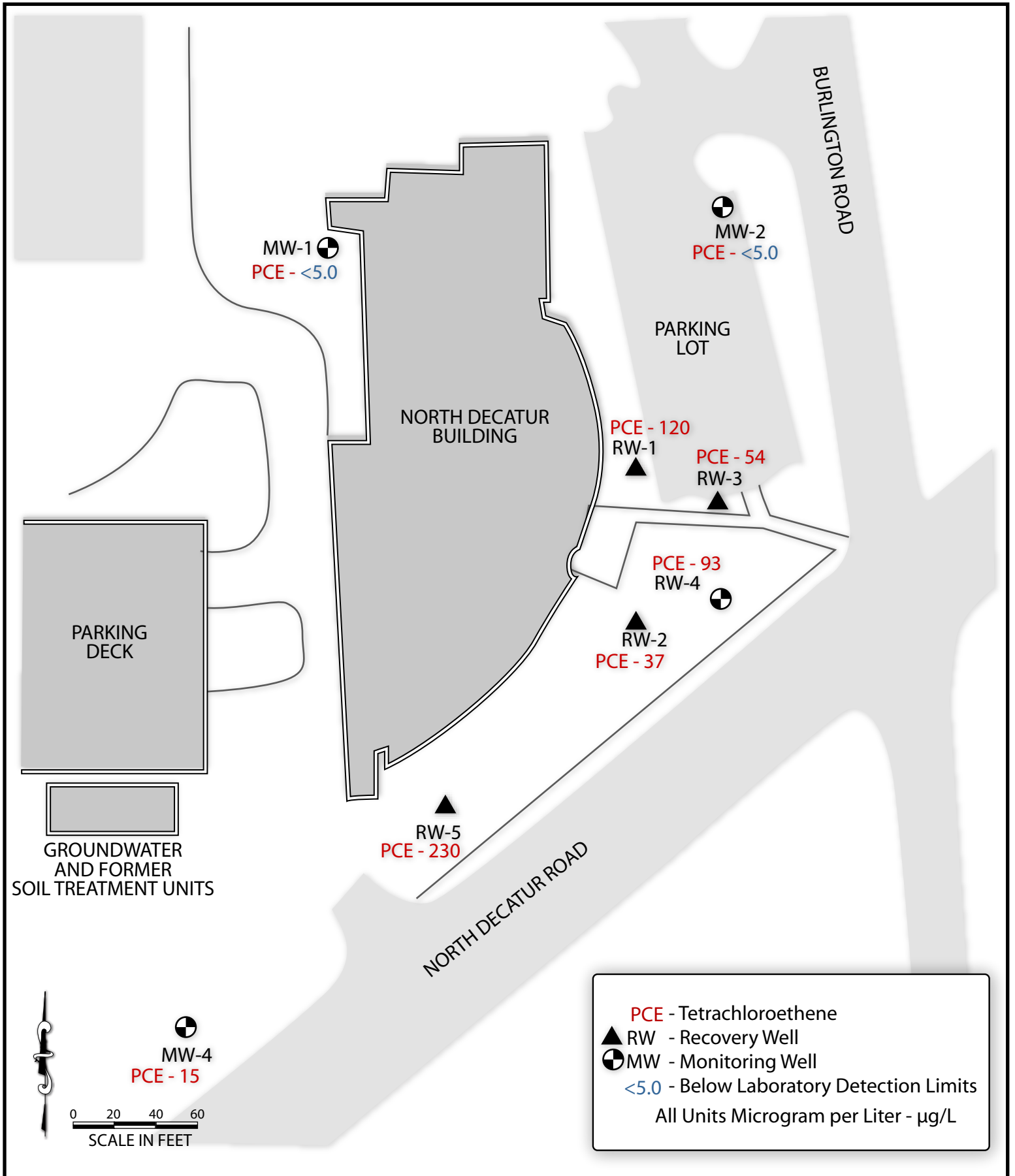


*Under Limited Pumping Conditions

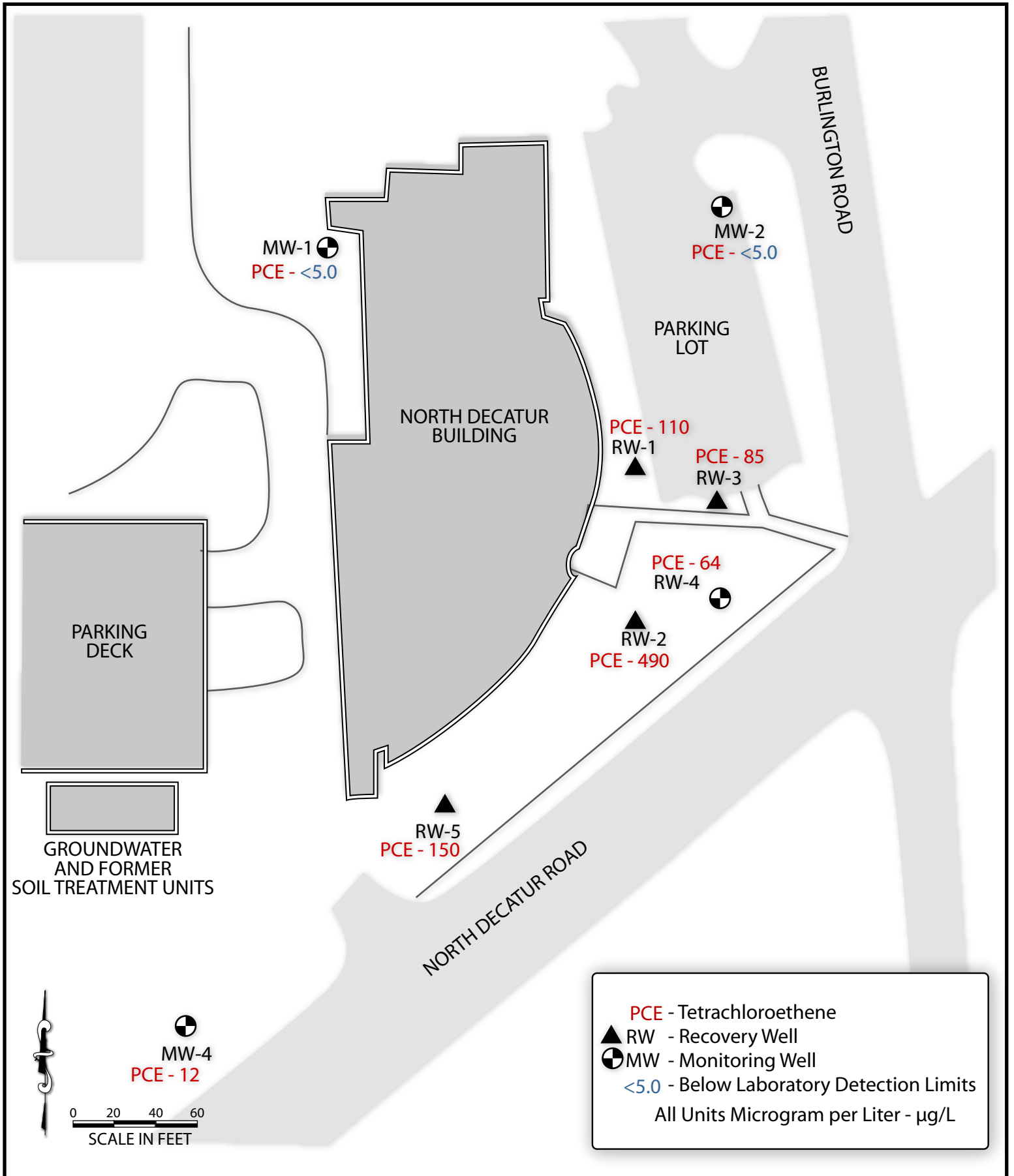
▲ RW	- Recovery Well
⊙ MW	- Monitoring Well
⊕ TP	- Temporary Piezometer
NM	- Not Measured
919.16	- Water Elevation (feet)
	- Direction of Groundwater Flow

CLIENT:	Emory University	
PROJECT:	North Decatur Road Site, Atlanta, Georgia	
DATE:	January 2014	DESIGNED BY:
SCALE:	1" = 60'	DRAWN BY:
FILE:	H:\proj\Emory University\Jan2014\Potmap June2012.ai	CHECKED BY:
		J. Gross
		B. Jacobs

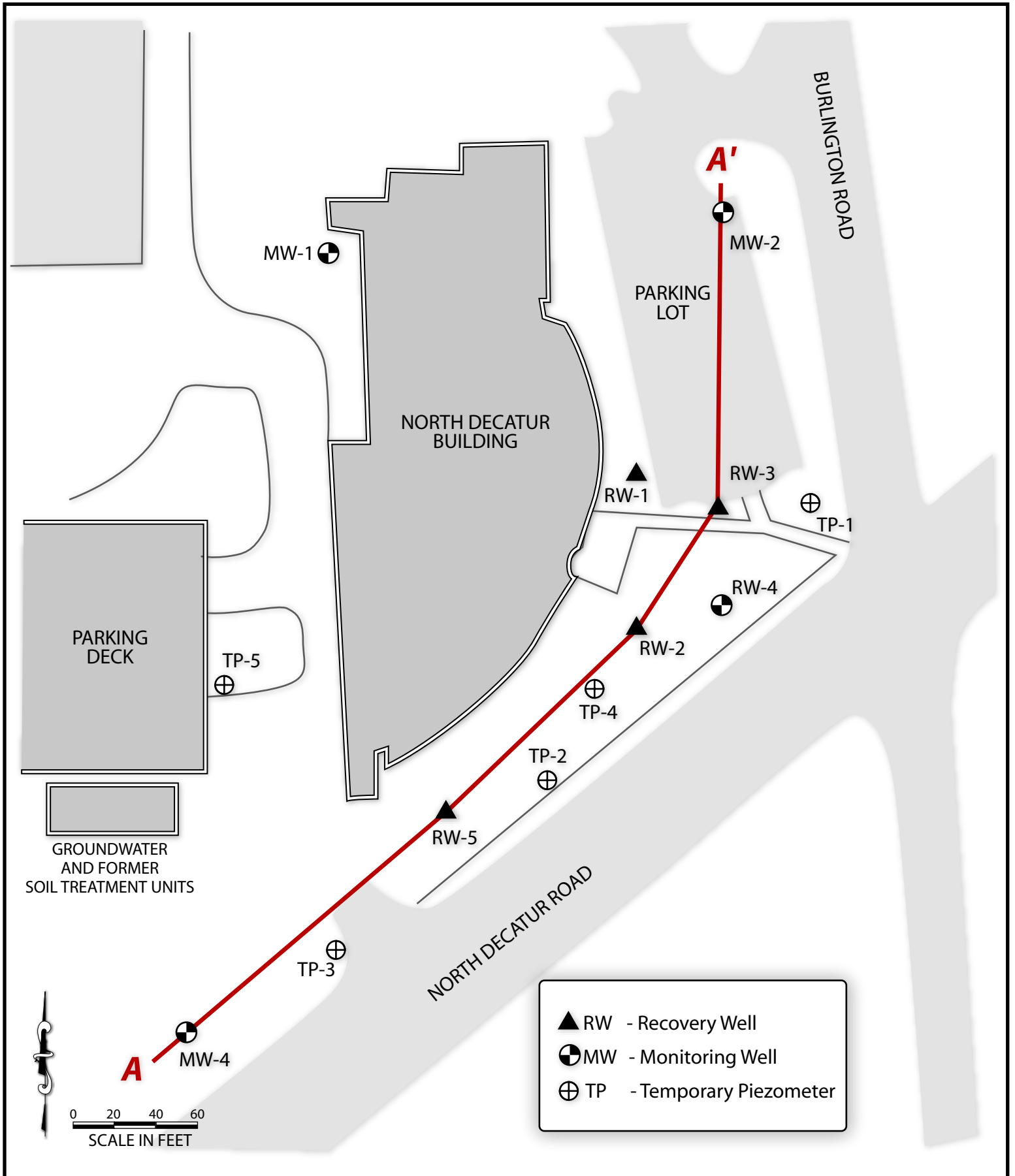
TITLE:	June 2012 Potentiometric Map*			
			PROJ. NO.:	15263255
			TASK:	01150
FIGURE:	3			




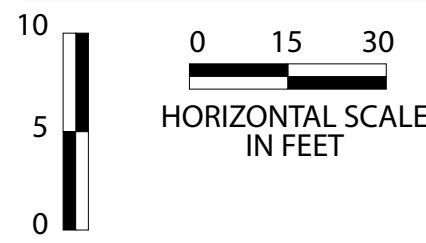
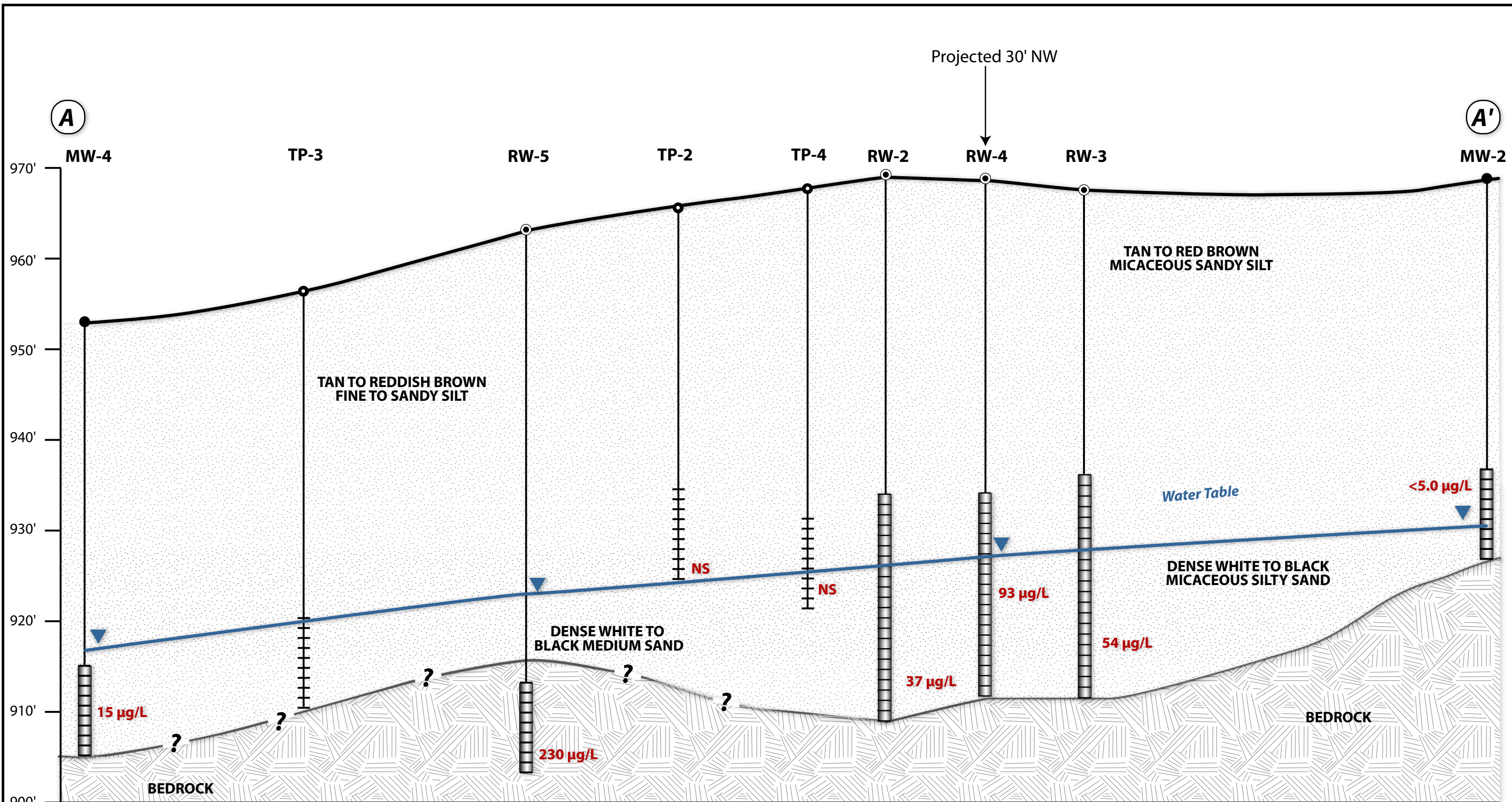
CLIENT: Emory University		TITLE: PCE Concentrations	
PROJECT: North Decatur Road Site, Atlanta, Georgia		January 2013	
DATE: January 2014	DESIGNED BY:		PROJ. NO.: 15263255
SCALE: 1" = 60'	DRAWN BY: J. Gross		TASK: 01150
FILE: H:\proj\EmoryUniversity\Jan2014\PCEconcJan2013.ai	CHECKED BY: B. Jacobs		FIGURE: 4



CLIENT: Emory University		TITLE: PCE Concentrations	
PROJECT: North Decatur Road Site, Atlanta, Georgia		June 2013	
DATE: January 2014	DESIGNED BY:		PROJ. NO.: 15263255
SCALE: 1" = 60'	DRAWN BY: J. Gross		TASK: 01150
FILE: H:\proj\EmoryUniversity\Jan2014\PCeconcJune2013.ai	CHECKED BY: B. Jacobs		FIGURE: 5



CLIENT: Emory University		TITLE: Cross Section Location Map		
PROJECT: North Decatur Road Site, Atlanta, Georgia				
DATE: January 2014	DESIGNED BY:			PROJ. NO.: 15263255
SCALE: 1" = 60'	DRAWN BY: J. Gross			TASK: 01150
FILE: H:\proj\Emory University\Jan2014\CrossSectLocMap.ai	CHECKED BY: B. Jacobs			FIGURE: 6

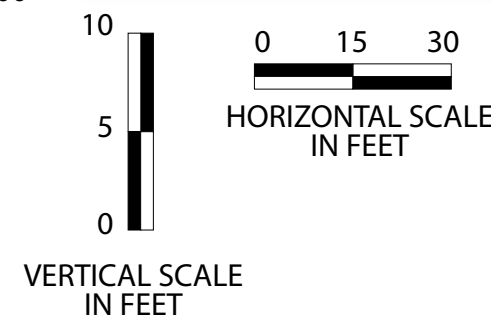
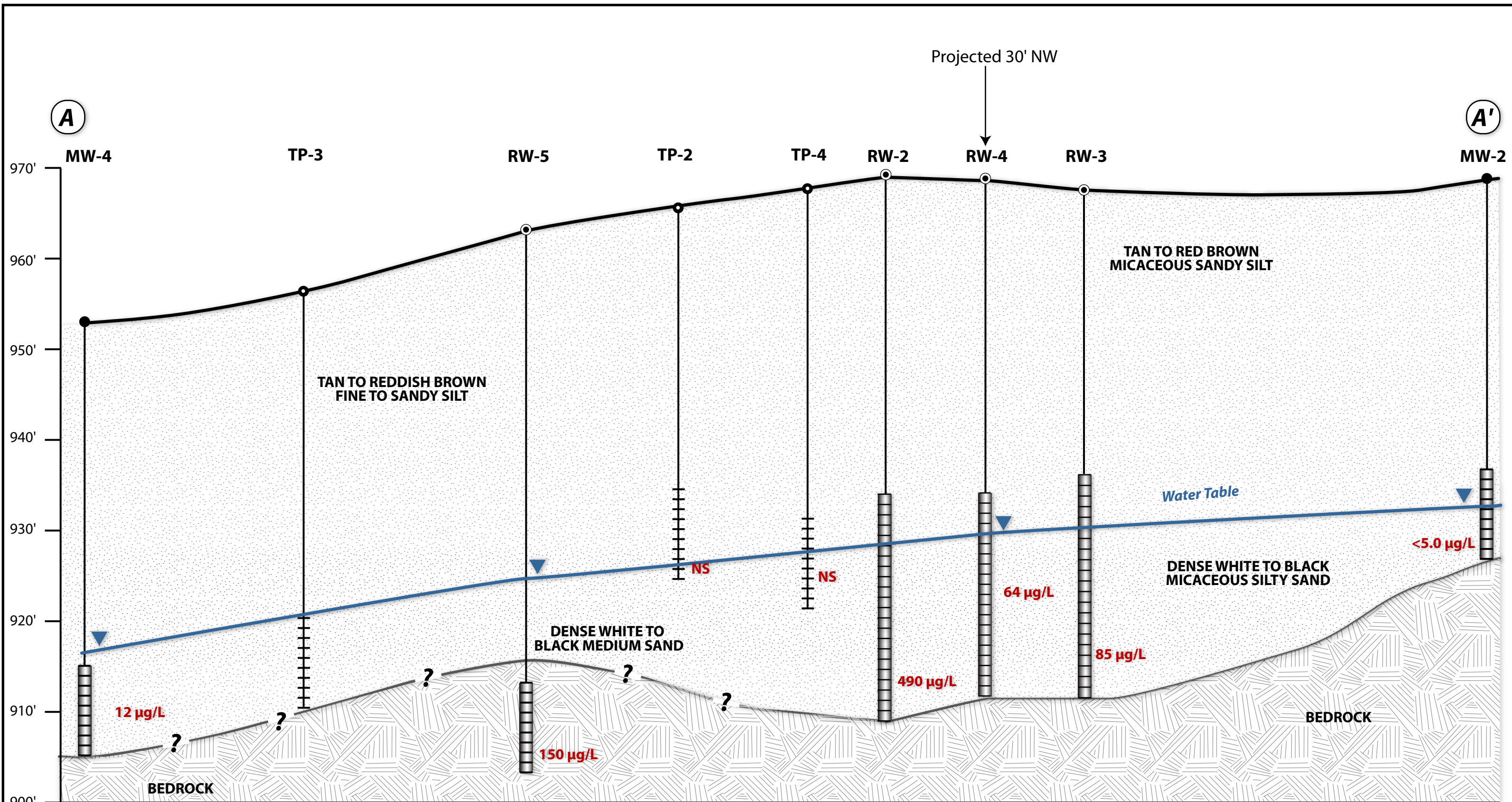


MW - Monitoring Well
TP - Temporary Piezometer
RW - Recovery Well (Except RW-4 which was converted to a Monitoring Well)
NS - Not Sampled

PCE Concentrations from January 2013 Semi-Annual Sampling
 Water Table Elevations Measured on January 4, 2013
 All units are in micrograms per liter (µg/L)

CLIENT:	Emory University		TITLE:	PCE in Groundwater in Cross Section A-A', January 2013	
PROJECT:	North Decatur Road Site, Atlanta, Georgia		PROJ. NO.:	15263255	
SCALE:	Horizontal: 1" = 30'	Vertical: 1" = 10'	TASK:	01150	
DATE:	January 2014		DRAWN BY:	J. Gross	
FILE:	H:\Proj\EmoryUniversity\Jan2014\PCE CrossSect Jan13.ai		CHECKED BY:	B. Jacobs	
			FIGURE:	7	





MW - Monitoring Well
TP - Temporary Piezometer
RW - Recovery Well (Except RW-4 which was converted to a Monitoring Well)
NS - Not Sampled

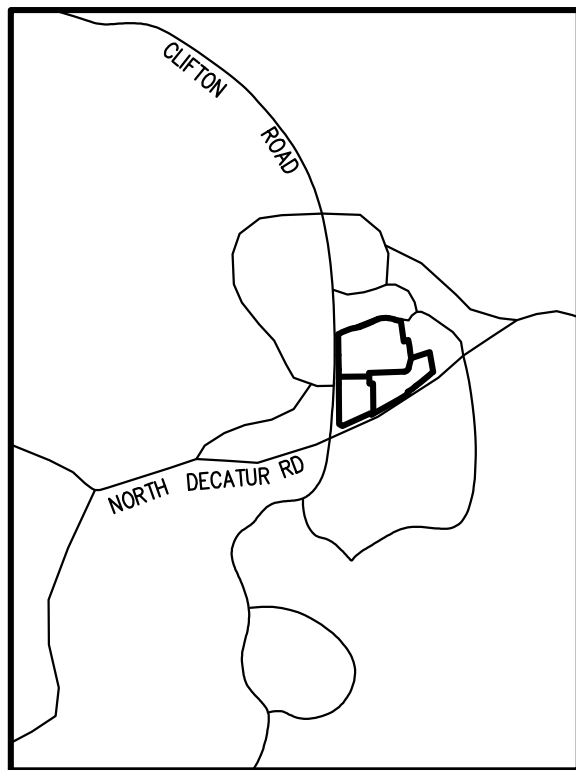
PCE Concentrations from June 2013 Semi-Annual Sampling
 Water Table Elevations Measured on June 27, 2013
 All units are in micrograms per liter (µg/L)

CLIENT:	Emory University		TITLE:	PCE in Groundwater in Cross Section A-A', June 2013	
PROJECT:	North Decatur Road Site, Atlanta, Georgia		PROJ. NO.:	15263255	
SCALE:	Horizontal: 1" = 30'	Vertical: 1" = 10'	TASK:	01150	
DATE:	January 2014		DRAWN BY:	J. Gross	
FILE:	H:\Proj\EmoryUniversity\Jan2014\PCE CrossSect June13.ai		CHECKED BY:	B. Jacobs	
			FIGURE:	8	



APPENDIX A

Warranty Deed and Tax Plat



VICINITY MAP (1"-2000')

LOT DIVISION PLAT OF:
**PROPERTY OF
 EMORY
 UNIVERSITY**
 LAND LOTS 52 & 53
 OF THE 18TH DISTRICT,
 DeKALB COUNTY, GEORGIA

LEGEND:

IPS	IRON PIN SET	DE	DRAINAGE EASEMENT
IPF	IRON PIN FOUND	CB	CATCH BASIN
OTP	OPEN TOP PIPE	JB	JUNCTION BOX
CTP	CRIMP TOP PIPE	DM	DRAINAGE MANHOLE
RB	REINFORCING BAR	DI	DROP INLET
CRB	CAPPED RE-BAR	HW	HEAD WALL
R/W	RIGHT-OF-WAY	FES	FLARED END SECTION (FES)
LL	LAND LOT	TM	TELEPHONE MANHOLE
LLL	LAND LOT LINE	TP	TELEPHONE PEDESTAL
L	LINE	TB	TELEPHONE BOX
A	ARC	SM	SEWER MANHOLE
R	RADIUS	SSE	SANITARY SEWER EASEMENT
CH	CHORD	SC	SEWER CLEANOUT
C	CURVE	FH	FIRE HYDRANT
CONC	CONCRETE	WV	WATER VALVE
CM	CONCRETE	WM	WATER METER
GV	GUY POLE	WS	WATER SEEP
GM	GAS VALVE	WSP	WATER SPIGOT
GM	GAS METER	TR	TRAFFIC BOX
GM	GAS MARKER	PS	PEDESTRIAN SIGNAL
LP	LAMP POLE	BR	BOLLARD (ROUND)
PP	POWER POLE	BS	BOLLARD (SQUARE)
FM	FIBER OPTIC MARKER	CB	CABLE BOX
ICV	IRRIGATION CONTROL VALVE	CL	CENTERLINE
MW	MONITORING WELL	CH	CHORD
PRV	PRESSURE RELEASE VALVE	PH	POINT OF BEGINNING
PVC	PVC STUB	POC	POINT OF COMMENCEMENT
PS	POWER STUB	PI	POINT OF INTERSECTION
EM	ELECTRIC METER		
WFL	WETLAND FLAG		
CMF	CORRUGATED METAL PIPE		
RCP	REINFORCED CONCRETE PIPE		
CD	CROSS DRAIN		
SS	SANITARY SEWER		
X-X	FENCE		
CMF	CONCRETE MONUMENT FOUND		
Z-Z	OVERHEAD UTILITY LINE(S)		

GENERAL NOTES:

- PURSUANT TO RULE 180-6.09 OF THE GEORGIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, THE TERM "CERTIFY" OR "CERTIFICATION" RELATING TO LAND SURVEYING SERVICES SHALL MEAN A SIGNED STATEMENT BASED ON FACTS AND KNOWLEDGE KNOWN TO THE LAND SURVEYOR AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED.
- INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE RELYING ON THIS PLAT. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, ITS EMPLOYEES, ITS CONSULTANTS, ITS CONTRACTORS, AND/OR ITS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON AS TO SUCH UNDERGROUND INFORMATION.
- UNLESS OTHERWISE STATED HEREON, ONLY EVIDENCE OF EASEMENTS OR STRUCTURES THERETO WHICH ARE READILY APPARENT FROM A CASUAL ABOVE GROUND VIEW OF PREMISES ARE SHOWN. NO LIABILITY IS ASSUMED BY THE UNDERSIGNED FOR LOSS RELATING TO THE EXISTENCE OF ANY EASEMENT NOT DISCOVERED FROM MY CASUAL ABOVE GROUND VIEW OF THE PREMISES.
- UNLESS STATED OTHERWISE, GOVERNMENTAL JURISDICTIONAL AREAS OR NEGATIVE EASEMENTS, IF ANY, WHICH MIGHT IMPACT ON THE USE OF THE PREMISES WERE NOT LOCATED. NO LIABILITY IS ASSUMED BY THE UNDERSIGNED FOR ANY LOSS RESULTING FROM THE EXERCISE OF ANY GOVERNMENTAL JURISDICTION AFFECTING THE USE OF THE PREMISES.

I HAVE THIS DATE EXAMINED THE "FIA OFFICIAL FLOOD HAZARD MAP" AND FOUND THAT BY GRAPHIC PLOTTING ONLY, THE REFERENCE PARCEL IS NOT IN AN AREA HAVING SPECIAL FLOOD HAZARDS.
 MAP ID 13089 C 0062 J EFFECTIVE DATE: 05/16/13

FIRM
 FLOOD INSURANCE RATE MAP
 DEKALB COUNTY,
 GEORGIA
 AND INCORPORATED AREAS
 PANEL 62 OF 201
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)
 CONTAINS:
 NUMBER PANEL SUFFIX
 ATLANTA CITY OF 15017 0502
 DEKALB COUNTY OF 15018 0502
 DEKALB COUNTY 13005 0502

Notice to User: This Map Number shown below should be used when plotting map corners. The Community Number shown above should be used on insurance applications for the subject community.
 MAP NUMBER 13089C0062J
 MAP REVISED MAY 16, 2013
 Federal Emergency Management Agency

SITE DATA

OWNER:	EMORY UNIVERSITY 1380 OXFORD ROAD ATLANTA, GEORGIA 30322 PH: (404) 686-2422
SUBDIVIDER:	URS CORPORATION 400 NORTHPARK TOWN CENTER 1000 ABERNATHY ROAD NE, SUITE 900 ATLANTA, GEORGIA 30328 PH: (678) 808-8915
ENGINEER & SURVEYOR:	SOUTHEASTERN ENGINEERING, INC 2470 SANDY PLAINS ROAD MARIETTA, GEORGIA 30066 PH: (770) 321-3936
PERMIT NUMBER:	18883 (LDP NO. 18784)
TAX MAP I.D. NUMBERS:	18 053 03 01, 02, 03, 06, 07 & 010
BOUNDARY REFERENCE:	SEI, DATED AUGUST 2013
SITE ACREAGE:	LOT 1: 3.609 AC LOT 2: 8.653 AC LOT 3: 4.425 AC TOTAL: 16.687 AC
TOTAL # OF LOTS:	3 LOTS
WATER AND SEWER SERVICE:	DeKALB COUNTY
RECEIVING WATERS:	PEAVINE CREEK

SEI
 SOUTHEASTERN ENGINEERING, INC.
 2470 Sandy Plains Road
 Suite A
 Marietta, GA 30066
 (office) 770-321-3936
 (facsimile) 770-321-3935
 cadams@seengineering.com

AUTHORIZED AGENT FORM
 Date 11/20/13

I, Adrian L. Jackson, Assoc. General Counsel of Emory University
 (Name) (Business Name)

DO HEREBY AUTHORIZE THE FOLLOWING TO ACT AS MY AGENT(S) IN SUBMITTING SUBDIVISION PLATS AND APPLICATIONS:

1. Chris Amos Adams 2. Chad M. Cavitt
 3. James Higgins

I UNDERSTAND THAT I AM RESPONSIBLE FOR THE APPLICATION BY MY AGENT(S), AS REFERENCED ABOVE, I FURTHER UNDERSTAND THAT EACH TIME MY AGENT(S) SUBMITS A PLAT OR APPLICATION, OR SIGNS ANY REQUIRED DOCUMENTS, THAT THE INDIVIDUAL MUST EXHIBIT THIS AUTHORIZATION FOR TO THE PERMITTING STAFF, UPON REQUEST. I FURTHER ACKNOWLEDGE THAT THIS ORIGINAL AUTHORIZATION FORM IS LICENSE OR QUALIFICATION FILE FOR LEGAL REFERENCE PURPOSES.

Adrian L. Jackson, Esq., Associate General Counsel
 Signature
 Date 11/20/13

DeKalb County Department of Planning & Sustainability
 Burrell Ellis
 Chief Executive Officer

LOT DIVISION APPLICATION
 Application fee: \$200.00.
 All applications must be accompanied by four (4) folded copies of the lot division survey.
 (All plans must be folded)

PLEASE PRINT ALL INFORMATION

PROJECT NAME EMORY UNIVERSITY HOSPITAL
 PROJECT LOCATION CLIFTON ROAD PARCEL ID NO.: 18 053 03 010
 PROPOSED USE EDUCATIONAL/MEDICAL
 DATE OF SKETCH PLAT CONFERENCE _____
 SITE ACREAGE 14.21 # LOTS 3 # UNITS _____ SEWER X SEPTIC TANK _____
 PROPERTY OWNER EMORY UNIVERSITY PHONE _____
 ADDRESS 1599 CLIFTON ROAD
 CITY Atlanta STATE GA ZIP 30322

AGENT AUTHORIZED TO RECEIVE ALL NOTIFICATIONS
 ADDRESS _____ PHONE _____
 CITY _____ STATE _____ ZIP _____

DEVELOPER _____ PHONE _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP _____

ENGINEER / ARCH URS CORPORATION PHONE 678 808 8915
 ADDRESS 400 NORTH PARK TOWN CENTER ~ 1000 ABERNATHY ROAD SUITE 900
 CITY Atlanta STATE GA ZIP 30328

APPLICANT CHAD M. CAVITT (PSEED)
 COMPANY SEI PHONE 770 321 3936
 ADDRESS 2470 SANDY PLAINS ROAD MARIETTA, GA. 30066
 SIGNATURE OF APPLICANT [Signature] DATE 10/01/13

330 West Florida de Lion Avenue - Suites 100-500 - Decatur, Georgia - 30030
 (voice) 404.371.2155 - (Planning Fax) (404) 371-4558 (Development Fax) (404) 371-3007
 Web Address: <http://www.dekalbcountyga.gov/planning>
 Email Address: planninganddevelopment@dekalbcountyga.gov Revised 2/11/11

- REFERENCES:**
- SUBDIVISION OF WOODLAND PARK PREPARED BY GORDON NALLEY DATED OCTOBER, 1940. SAID PLAT IS UNRECORDED.
 - SURVEY AND PLAT OF PROPERTY LOCATED IN LAND LOTS 52 & 53, 18TH DISTRICT, DEKALB COUNTY, GEORGIA PREPARED BY SHIRLEY, NELSON, & ASSOCIATES DATED JUNE 17, 1964 AND RECORDED IN DEED BOOK 2033, PAGE 493, FULTON COUNTY RECORDS.
 - BOUNDARY SURVEY FOR EMORY UNIVERSITY PREPARED BY TRAVIS PRUITT & ASSOCIATES, INC. DATED JULY 3, 2008. SAID PLAT IS UNRECORDED.
 - BOUNDARY SURVEY FOR EMORY UNIVERSITY PREPARED BY TRAVIS PRUITT & ASSOCIATES, INC. DATED JULY 30, 2008. SAID PLAT IS UNRECORDED.

SEI
 SOUTHEASTERN ENGINEERING, INC.
 2470 Sandy Plains Road Marietta, Georgia 30066
 tel: 770-321-3936 fax: 770-321-3935
 www.seengineering.com

MEMBER OF THE SURVEYING & MAPPING SOCIETY OF GEORGIA (SANSOG)
 ALL MATTERS OF TITLE ARE EXCEPTED. © 2013
 Deuteronomy 19:14. Do not move your neighbor's boundary stone set up by your predecessors...

CHECKED: CAJ
 DRAFTED: SEI
 SURVEYED: ML

No.	REVISION	DATE

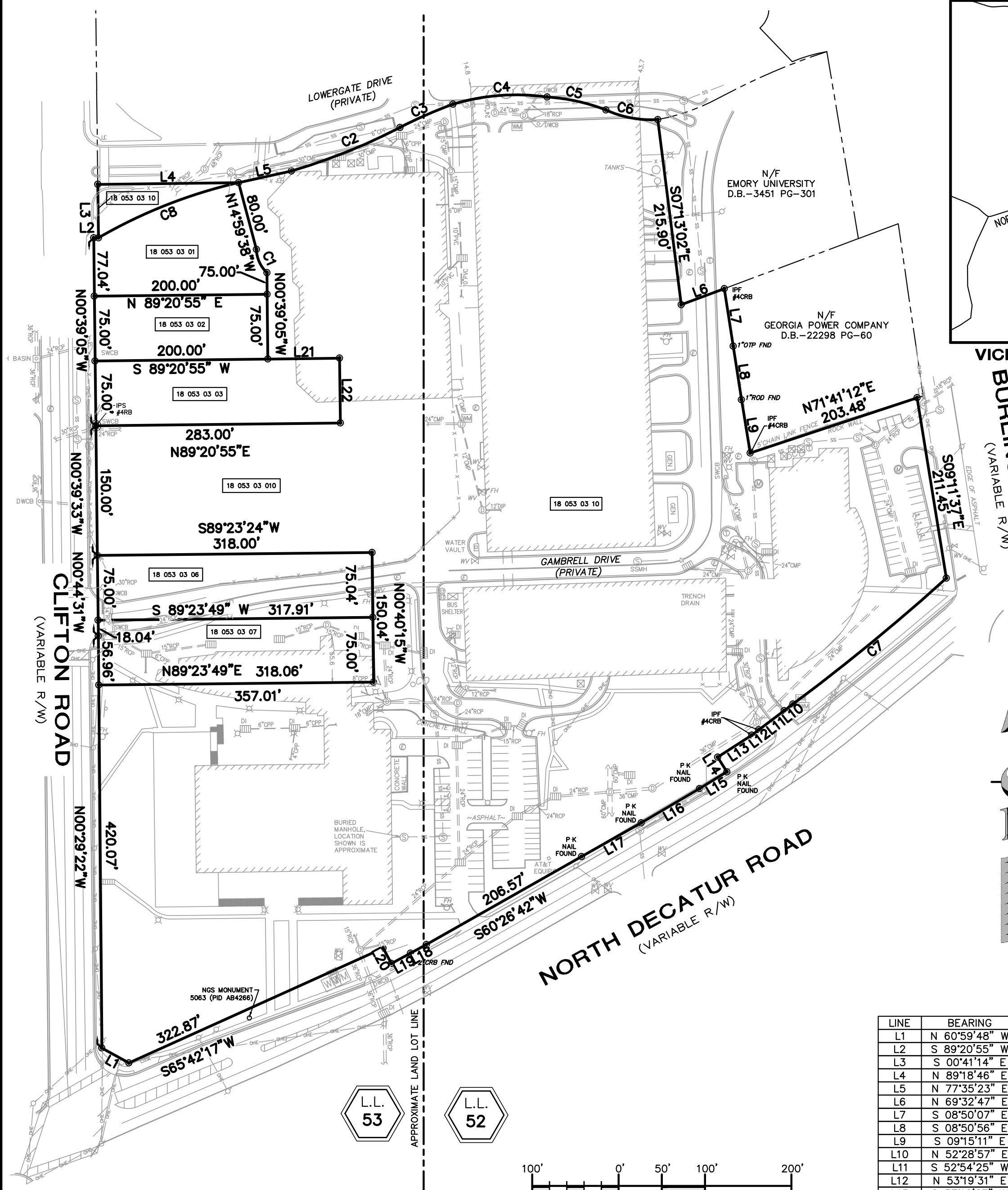
PLAT INFORMATION:
 SCALE 1" = 100' DATE: 10/03/13

LOT DIVISION PLAT FOR:
URS CORPORATION
 LAND LOTS 52 & 53
 OF THE 18TH DISTRICT,
 DeKALB COUNTY, GEORGIA

THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE OF 1 FOOT IN 83,557 FEET AND AN ANGULAR ERROR OF 01 SECONDS PER ANGLE POINT AND WAS ADJUSTED USING THE LEAST SQUARES METHOD. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND FOUND TO BE ACCURATE TO 1 FOOT IN 196,857 FEET. AN ELECTRONIC TOTAL STATION WAS USED TO GATHER THE INFORMATION USED IN THE PREPARATION OF THIS PLAT. THIS PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS OR ENTITY NAMED HEREON. THIS PLAT DOES NOT EXTEND TO ANY UNNAMED PERSON, PERSONS OR ENTITY WITHOUT EXPRESS RECERTIFICATION BY THE SURVEYOR NAMING SAID PERSON, PERSONS OR ENTITY.

CHOICE REGISTERED
 THIS IS A REGISTERED SURVEYOR'S SEAL
 No. 2786
 CHAS. AMOS ADAMS

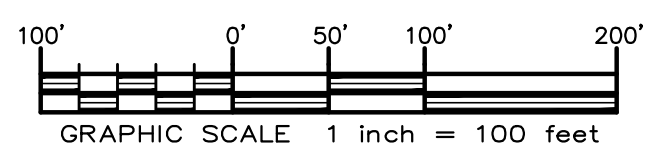
JOB No.: 481-13-117
 SHEET NO. 1 OF 3



REFERENCES:

- SUBDIVISION OF WOODLAND PARK PREPARED BY GORDON NALLEY DATED OCTOBER, 1940. SAID PLAT IS UNRECORDED.
- SURVEY AND PLAT OF PROPERTY LOCATED IN LAND LOTS 52 & 53, 18TH DISTRICT, DEKALB COUNTY, GEORGIA PREPARED BY SHIRLEY, NELSON, & ASSOCIATES DATED JUNE 17, 1964 AND RECORDED IN DEED BOOK 2033, PAGE 493, FULTON COUNTY RECORDS.
- BOUNDARY SURVEY FOR EMORY UNIVERSITY PREPARED BY TRAVIS PRUITT & ASSOCIATES, INC. DATED JULY 3, 2008. SAID PLAT IS UNRECORDED.
- BOUNDARY SURVEY FOR EMORY UNIVERSITY PREPARED BY TRAVIS PRUITT & ASSOCIATES, INC. DATED JULY 30, 2008. SAID PLAT IS UNRECORDED.

CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	38.86'	30.16'	N24°15'35"W	29.40'
C2	719.31'	135.62'	N68°10'03"E	135.42'
C3	559.16'	67.07'	N66°21'10"E	67.03'
C4	253.50'	110.17'	N85°38'32"E	109.30'
C5	224.56'	69.74'	S77°38'19"E	69.46'
C6	125.29'	61.72'	S79°27'09"E	61.09'
C7	2352.84'	229.78'	S50°38'06"W	229.69'
C8	585.31'	175.00'	N68°29'38"E	174.35'



LINE	BEARING	DISTANCE
L1	N 60°59'48" W	35.65'
L2	S 89°20'55" W	5.48'
L3	S 00°41'14" E	61.97'
L4	N 89°18'46" E	162.97'
L5	N 77°35'23" E	62.59'
L6	N 69°32'47" E	53.22'
L7	S 08°50'07" E	67.28'
L8	S 08°50'56" E	62.73'
L9	S 09°15'11" E	62.56'
L10	N 52°28'57" E	12.66'
L11	S 52°54'25" W	36.74'
L12	N 53°19'31" E	10.17'
L13	S 57°12'27" W	47.02'
L14	S 32°08'02" E	20.10'
L15	S 58°38'18" W	37.23'
L16	S 59°31'45" W	78.24'
L17	S 60°30'47" W	79.21'
L18	N 61°39'44" E	20.86'
L19	N 61°30'02" W	25.20'
L20	N 28°18'45" W	20.20'
L21	N 89°20'55" E	83.00'
L22	S 00°39'05" E	75.00'

SITE DATA

OWNER: EMORY UNIVERSITY
1380 OXFORD ROAD
ATLANTA, GEORGIA 30322
PH: (404) 686-2422

SUBDIVIDER: URS CORPORATION
400 NORTHPARK TOWN CENTER
1000 ABERNATHY ROAD NE, SUITE 900
ATLANTA, GEORGIA 30328
PH: (678) 808-8915

ENGINEER & SURVEYOR: SOUTHEASTERN ENGINEERING, INC
2470 SANDY PLAINS ROAD
MARIETTA, GEORGIA 30066
PH: (770) 321-3936

PERMIT NUMBER: 18883

TAX MAP I.D. NUMBERS: 18 053 03-01, 02, 03, 06, 07 & 010

BOUNDARY REFERENCE: SEI, DATED AUGUST 2013

SITE AREA: 726,883 SQUARE FEET
OR 16.687 ACRES

WATER AND SEWER SERVICE: DeKALB COUNTY
RECEIVING WATERS: PEAVINE CREEK

- LEGEND:**
- IPS IRON PIN SET
 - IPF IRON PIN FOUND
 - OTF OPEN TOP PIPE
 - CTP CRIMP TOP PIPE
 - RB REINFORCING BAR
 - CRB CAPPED RE-BAR
 - R/W RIGHT-OF-WAY
 - LL LAND LOT
 - LLL LAND LOT LINE
 - L LINE
 - A ARC
 - R RADIUS
 - CH CHORD
 - C CURVE
 - CONC CONCRETE
 - CMF CORRUGATED METAL PIPE
 - RCP REINFORCED CONCRETE PIPE
 - CD CROSS DRAIN
 - SS SANITARY SEWER
 - F FENCE
 - CMF CONCRETE MONUMENT FOUND
 - Z OVERHEAD UTILITY LINE(S)
 - DE DRAINAGE EASEMENT
 - CATCH BASIN
 - JUNCTION BOX
 - DRAINAGE MANHOLE
 - DROP
 - HEAD WALL
 - FLARED END SECTION (FES)
 - TELEPHONE MANHOLE
 - TELEPHONE PEDESTAL
 - TELEPHONE BOX
 - SEWER MANHOLE
 - SANITARY SEWER EASEMENT
 - SEWER CLEANOUT
 - FIRE HYDRANT
 - WATER VALVE
 - WATER METER
 - WATER SEEP
 - WATER SPIGOT
 - SIGN
 - TRAFFIC BOX
 - PEDESTRIAN SIGNAL
 - BOLLARD (ROUND)
 - BOLLARD (SQUARE)
 - CABLE BOX
 - CENTERLINE
 - BORE HOLE
 - FENCE POST
 - POB POINT OF BEGINNING
 - POC POINT OF COMMENCEMENT
 - PI POINT OF INTERSECTION

GENERAL NOTES:

- PURSUANT TO RULE 180-6.09 OF THE GEORGIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, THE TERM "CERTIFY" OR "CERTIFICATION" RELATING TO LAND SURVEYING SERVICES SHALL MEAN A SIGNED STATEMENT BASED ON FACTS AND KNOWLEDGE KNOWN TO THE LAND SURVEYOR AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED.
- INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE RELYING ON THIS PLAT. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, ITS EMPLOYEES, ITS CONSULTANTS, ITS CONTRACTORS, AND/OR ITS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON AS TO SUCH UNDERGROUND INFORMATION.
- UNLESS OTHERWISE STATED HEREON, ONLY EVIDENCE OF EASEMENTS OR STRUCTURES THERETO WHICH ARE READILY APPARENT FROM A CASUAL ABOVE GROUND VIEW OF PREMISES ARE SHOWN. NO LIABILITY IS ASSUMED BY THE UNDERSIGNED FOR LOSS RELATING TO THE EXISTENCE OF ANY EASEMENT NOT DISCOVERED FROM MY CASUAL ABOVE GROUND VIEW OF THE PREMISES.
- UNLESS STATED OTHERWISE, GOVERNMENTAL JURISDICTIONAL AREAS OR NEGATIVE EASEMENTS, IF ANY, WHICH MIGHT IMPACT ON THE USE OF THE PREMISES WERE NOT LOCATED. NO LIABILITY IS ASSUMED BY THE UNDERSIGNED FOR ANY LOSS RESULTING FROM THE EXERCISE OF ANY GOVERNMENTAL JURISDICTION AFFECTING THE USE OF THE PREMISES.

I HAVE THIS DATE EXAMINED THE "FIA OFFICIAL FLOOD HAZARD MAP" AND FOUND THAT BY GRAPHIC PLOTTING ONLY, THE REFERENCE PARCEL IS NOT IN AN AREA HAVING SPECIAL FLOOD HAZARDS.

MAP ID 13089 C 0062 J EFFECTIVE DATE: 05/16/13

FIRM
FLOOD INSURANCE RATE MAP
DEKALB COUNTY, GEORGIA
AND INCORPORATED AREAS
PANEL 62 OF 201
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ATLANTA, CITY OF	130117	0002	1
ATLANTA, CITY OF	130118	0002	2
DEKALB COUNTY	130605	0002	1

MAP NUMBER 13089C0062J
MAP REVISED MAY 16, 2013

Federal Emergency Management Agency

SEI
SOUTHEASTERN ENGINEERING, INC.
2470 Sandy Plains Road Marietta, Georgia 30066
tel: 770-321-3936 fax: 770-321-3935
www.seengineering.com

MEMBER OF THE SURVEYING & MAPPING SOCIETY OF GEORGIA (SANSOG)
ALL MATTERS OF TITLE ARE EXCEPTED. © 2003
Deuteronomy 19:14. Do not move your neighbor's boundary stone set up by your predecessors...

SURVEYED: ML DRAFTED: SEI CHECKED: CA

No.	REVISION	DATE

PLAT INFORMATION: SCALE 1" = 100' DATE 03/13

THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE OF 1 FOOT IN 83,557 FEET AND AN ANGULAR ERROR OF 01 SECONDS PER ANGLE POINT AND WAS ADJUSTED USING THE LEAST SQUARES METHOD. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND FOUND TO BE ACCURATE TO 1 FOOT IN 196,857 FEET. AN ELECTRONIC TOTAL STATION WAS USED TO GATHER THE INFORMATION USED IN THE PREPARATION OF THIS PLAT.

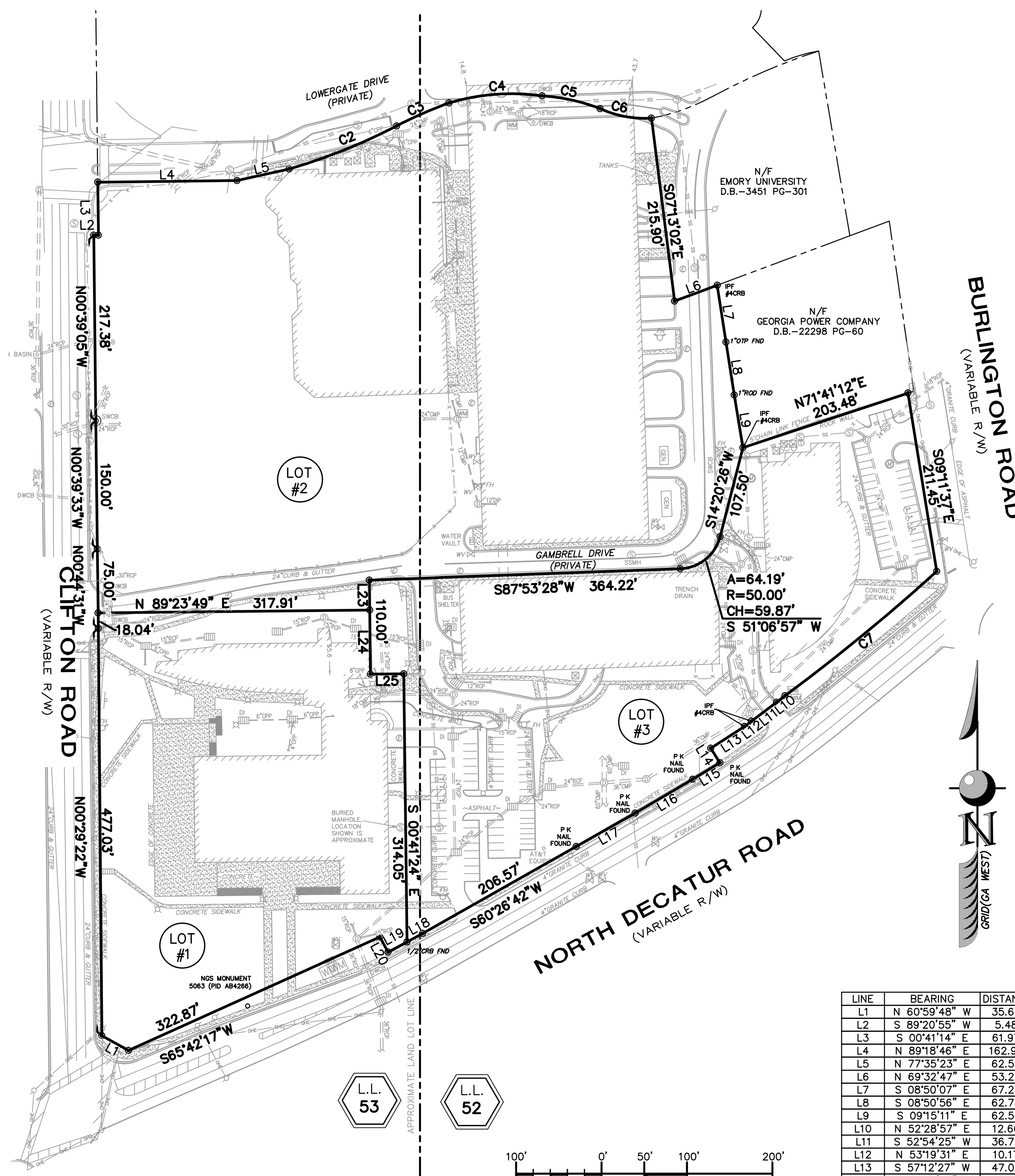
THIS PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS OR ENTITY NAMED HEREON. THIS PLAT DOES NOT EXTEND TO ANY UNNAMED PERSON, PERSONS OR ENTITY WITHOUT EXPRESS RECERTIFICATION BY THE SURVEYOR NAMING SAID PERSON, PERSONS OR ENTITY.

PARCEL EXHIBIT FOR:

URS CORPORATION
LAND LOTS 52 & 53
OF THE 18TH DISTRICT,
DEKALB COUNTY, GEORGIA

CHOS REGISTERED PROFESSIONAL SURVEYOR No. 2786

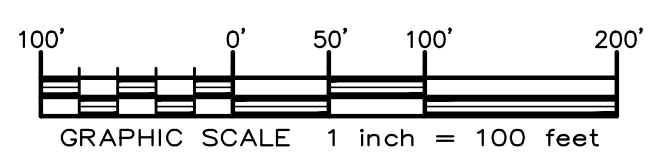
JOB No.: 481-13-117
SHEET NO. 2 OF 3



REFERENCES:

- SUBDIVISION OF WOODLAND PARK PREPARED BY GORDON NALLEY DATED OCTOBER, 1940. SAID PLAT IS UNRECORDED.
- SURVEY AND PLAT OF PROPERTY LOCATED IN LAND LOTS 52 & 53, 18TH DISTRICT, DEKALB COUNTY, GEORGIA PREPARED BY SHIRLEY, NELSON, & ASSOCIATES DATED JUNE 17, 1964 AND RECORDED IN DEED BOOK 2033, PAGE 493, FULTON COUNTY RECORDS.
- BOUNDARY SURVEY FOR EMORY UNIVERSITY PREPARED BY TRAVIS PRUITT & ASSOCIATES, INC. DATED JULY 3, 2008. SAID PLAT IS UNRECORDED.
- BOUNDARY SURVEY FOR EMORY UNIVERSITY PREPARED BY TRAVIS PRUITT & ASSOCIATES, INC. DATED JULY 30, 2008. SAID PLAT IS UNRECORDED.

CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	38.86'	30.16'	N24°15'35"W	29.40'
C2	719.31'	135.62'	N68°10'03"E	135.42'
C3	559.16'	67.07'	N66°21'10"E	67.03'
C4	253.50'	110.17'	N85°38'32"E	109.30'
C5	224.56'	69.74'	S77°38'19"E	69.46'
C6	125.29'	61.72'	S79°27'09"E	61.09'
C7	2352.84'	229.78'	S50°38'06"W	229.69'
C8	585.31'	175.00'	N68°29'38"E	174.35'



LEGEND:

IPS	IRON PIN SET	DE	DRAINAGE EASEMENT
IPF	IRON PIN FOUND	CB	CATCH BASIN
OTP	OPEN TOP PIPE	JB	JUNCTION BOX
CTP	CRIMP TOP PIPE	DM	DRAINAGE MANHOLE
RB	REINFORCING BAR	RI	REINFORCING IRON
CRB	CAPPED RE-BAR	HW	HEAD WALL
R/W	RIGHT-OF-WAY	FES	FLARED END SECTION (FES)
LL	LAND LOT	TM	TELEPHONE MANHOLE
LLL	LAND LOT LINE	TP	TELEPHONE PEDESTAL
L	LINE	TCB	TELEPHONE BOX
A	ARC	SM	SEWER MANHOLE
R	RADIUS	SSE	SANITARY SEWER EASEMENT
CH	CHORD	SC	SEWER CLEANOUT
CONC	CONCRETE	FW	FIRE HYDRANT
CM	CORRUGATED METAL PIPE	WV	WATER VALVE
RCP	REINFORCED CONCRETE PIPE	WM	WATER METER
CD	CROSS DRAIN	WS	WATER STOP
SS	SANITARY SEWER	WSP	WATER SPIGOT
F	FENCE	S	SIGN
CMF	CONCRETE MONUMENT FOUND	TBS	TRAFFIC BOX
Z	OVERHEAD UTILITY LINE(S)	PS	PEDESTRIAN SIGNALS

GENERAL NOTES:

- PURSUANT TO RULE 180-6.09 OF THE GEORGIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, THE TERM "CERTIFY" OR "CERTIFICATION" RELATING TO LAND SURVEYING SHALL MEAN A SIGNED STATEMENT BASED ON FACTS AND KNOWLEDGE KNOWN TO THE LAND SURVEYOR AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED.
- INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER, AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES NOT SHOWN HEREON, THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE RELYING ON THIS PLAT. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, ITS EMPLOYEES, ITS CONSULTANTS, ITS CONTRACTORS, AND/OR ITS AGENTS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION SHOWN HEREON AS TO SUCH UNDERGROUND INFORMATION.
- UNLESS OTHERWISE STATED HEREON, ONLY EVIDENCE OF EASEMENTS OR STRUCTURES THERETO WHICH ARE READILY APPARENT FROM A CASUAL ABOVE GROUND VIEW OF PREMISES ARE SHOWN. NO LIABILITY IS ASSUMED BY THE UNDERSIGNED FOR LOSS RELATING TO THE EXISTENCE OF ANY EASEMENT NOT DISCOVERED FROM MY CASUAL ABOVE GROUND VIEW OF THE PREMISES.
- UNLESS STATED OTHERWISE, GOVERNMENTAL JURISDICTIONAL AREAS OR NEGATIVE EASEMENTS, IF ANY, WHICH MIGHT IMPACT ON THE USE OF THE PREMISES WERE NOT LOCATED. NO LIABILITY IS ASSUMED BY THE UNDERSIGNED FOR ANY LOSS RESULTING FROM THE EXERCISE OF ANY GOVERNMENTAL JURISDICTION AFFECTING THE USE OF THE PREMISES.

I HAVE THIS DATE EXAMINED THE "FIA OFFICIAL FLOOD HAZARD MAP" AND FOUND THAT BY GRAPHIC PLOTTING ONLY, THE REFERENCE PARCEL IS NOT IN AN AREA HAVING SPECIAL FLOOD HAZARDS.

MAP ID 13089 C 0062 J EFFECTIVE DATE: 05/16/13

FIRM
FLOOD INSURANCE RATE MAP
DEKALB COUNTY, GEORGIA
AND INCORPORATED AREAS
PANEL 62 OF 201
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

MAP NUMBER 13089C0062J
MAP REVISED MAY 16, 2013
Federal Emergency Management Agency

SITE DATA

OWNER: EMORY UNIVERSITY
1380 OXFORD ROAD
ATLANTA, GEORGIA 30322
PH: (404) 686-2422

SUBDIVIDER: URS CORPORATION
400 NORTHPARK TOWN CENTER
1000 ABERNATHY ROAD NE, SUITE 900
ATLANTA, GEORGIA 30328
PH: (678) 808-8915

ENGINEER & SURVEYOR: SOUTHEASTERN ENGINEERING, INC
2470 SANDY PLAINS ROAD
MARIETTA, GEORGIA 30066
PH: (770) 321-3936

PERMIT NUMBER: 18883 (LDP NO. 18784)

TAX MAP I.D. NUMBERS: 18 053 03 01, 02, 03, 06, 07 & 010

BOUNDARY REFERENCE: SEI, DATED AUGUST 2013

SITE ACREAGE: LOT 1: 3.609 AC
LOT 2: 8.653 AC
LOT 3: 4.425 AC
TOTAL: 16.687 AC

TOTAL # OF LOTS: 3 LOTS
WATER AND SEWER SERVICE: DEKALB COUNTY
RECEIVING WATERS: PEAVINE CREEK

SEI
SOUTHEASTERN ENGINEERING, INC.
2470 Sandy Plains Road Marietta, Georgia 30066
tel: 770-321-3936 fax: 770-321-3935
www.seiengineering.com

MEMBER OF THE SURVEYING & MAPPING SOCIETY OF GEORGIA (SAMSOG)
ALL MATTERS OF TITLE ARE EXCEPTED. © 2013
Deuteronomy 19:14. Do not move your neighbor's boundary stone set up by your predecessors...

SURVEYED: ML DRAFTED: SEI CHECKED: CA

No.	REVISION	DATE

PLAT INFORMATION: SCALE 1" = 100' DATE: 10/03/13

THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE OF 1 FOOT IN 83,557 FEET AND AN ANGULAR ERROR OF 01 SECONDS PER ANGLE POINT AND WAS ADJUSTED USING THE LEAST SQUARES METHOD. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND FOUND TO BE ACCURATE TO 1 FOOT IN 196,857 FEET. AN ELECTRONIC TOTAL STATION WAS USED TO GATHER THE INFORMATION USED IN THE PREPARATION OF THIS PLAT.

THIS PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS OR ENTITY NAMED HEREON. THIS PLAT DOES NOT EXTEND TO ANY UNNAMED PERSON, PERSONS OR ENTITY WITHOUT EXPRESS RECERTIFICATION BY THE SURVEYOR NAMING SAID PERSON, PERSONS OR ENTITY.

LOT DIVISION PLAT FOR:

URS CORPORATION
LAND LOTS 52 & 53
OF THE 18TH DISTRICT,
DEKALB COUNTY, GEORGIA

JOHNSON & JOHNSON
REGISTERED PROFESSIONAL SURVEYOR
No. 2786
AMOS ADAMS

JOB No.: 481-13-117
SHEET NO. 3 OF 3

APPENDIX B

2013 Groundwater Analytical Data



January 16, 2013

Brent Jacobs
URS
400 Northpark Town Center
Atlanta GA 30328

TEL: (678) 808-8915
FAX: (678) 808-8400

RE: Emory

Dear Brent Jacobs:

Order No: 1301773

Analytical Environmental Services, Inc. received 9 samples on 1/11/2013 9:48:00 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 07/01/12-06/30/13.
- AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

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.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC
 3785 Presidential Parkway, Atlanta GA 30340-3704
 AES TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1301773

Date: 1/9/13 Page 1 of 1

COMPANY:		ADDRESS:			ANALYSIS REQUESTED		REMARKS		No # of Containers
URS Corp		1000 Abernathy Rd NE Suite 900 Atlanta GA 30328			PRESERVATION (See codes)		Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		
PHONE: 678-808-8800		FAX: 678-808-8800			PROJECT INFORMATION		RECEIPT		Total # of Containers
SAMPLED BY: R. Hilliard / URS		SIGNATURE: <i>R. Hilliard</i>			PROJECT NAME: Emory		Turnaround Time Request		
#	SAMPLE ID	SAMPLED		Composite	Matrix (See codes)	PROJECT ADDRESS: Burlington Rd a W. Decatur Rd Atlanta GA	PROJECT #:	STATE PROGRAM (if any):	E-mail? Y/N; Fax? Y/N
		DATE	TIME						
1	MW-2	1/9/13	1107	X	GW				
2	MW-1	1/9/13	1307	X	GW				
3	MW-4	1/9/13	1510	X	GW				
4	RW-3	1/10/13	0712	X	GW				
5	RW-1	1/10/13	0722	X	GW				
6	RW-5	1/10/13	0830	X	GW				
7	RW-4	1/10/13	0951	X	GW				
8	RW-2	1/10/13	1220	X	GW				
9									
10									
11									
12									
13									
14									
RELINQUISHED BY: <i>R. Hilliard</i>		DATE/TIME RECEIVED: 1/14/13 0948	DATE/TIME: 1/14/13	PROJECT INFORMATION					
SPECIAL INSTRUCTIONS/COMMENTS: * ONLY PCE, TCE, 1,1-DCE, Cis-1,2-DCE, Trans-1,2-DCE, and Vinyl Chloride.		SHIPMENT METHOD: CLIENT	OUT IN: 1 1	SEND REPORT TO: Brent Jacobs					
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.		SHIPMENT METHOD: VIA: COURIER	DATE/TIME: 1/14/13 9:48	INVOICE TO: (IF DIFFERENT FROM ABOVE)					
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		SHIPMENT METHOD: VIA: GREYHOUND	DATE/TIME: 1/14/13	QUOTE #: PO#:					
SERVATIVE CODES: H+1 = Hydrochloric acid + ice 1 = Ice only N = Nitric acid S+H = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None		SHIPMENT METHOD: VIA: UPS MAIL	DATE/TIME: 1/14/13	STATE PROGRAM (if any):					
		SHIPMENT METHOD: VIA: OTHER	DATE/TIME: 1/14/13	DATA PACKAGE: I II III IV					

Client: URS
Project: Emory
Lab ID: 1301773

Case Narrative

Sample Receiving Nonconformance:

A Trip Blank was provided but not listed on the Chain of Custody. Trip blank analyzed at no cost to the client.

Client: URS	Client Sample ID: MW-2
Project Name: Emory	Collection Date: 1/9/2013 11:27:00 AM
Lab ID: 1301773-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:40	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:40	GK
Tetrachloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:40	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:40	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:40	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 16:40	GK
Surr: 4-Bromofluorobenzene	92	64.6-123		%REC	171171	1	01/14/2013 16:40	GK
Surr: Dibromofluoromethane	104	76.6-133		%REC	171171	1	01/14/2013 16:40	GK
Surr: Toluene-d8	93.7	77.8-120		%REC	171171	1	01/14/2013 16:40	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

Client: URS	Client Sample ID: MW-1
Project Name: Emory	Collection Date: 1/9/2013 1:27:00 PM
Lab ID: 1301773-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:10	GK
Tetrachloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:10	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:10	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 17:10	GK
Surr: 4-Bromofluorobenzene	87.4	64.6-123		%REC	171171	1	01/14/2013 17:10	GK
Surr: Dibromofluoromethane	105	76.6-133		%REC	171171	1	01/14/2013 17:10	GK
Surr: Toluene-d8	94.6	77.8-120		%REC	171171	1	01/14/2013 17:10	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

Client: URS	Client Sample ID: MW-4
Project Name: Emory	Collection Date: 1/9/2013 3:10:00 PM
Lab ID: 1301773-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:40	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:40	GK
Tetrachloroethene	15	5.0		ug/L	171171	1	01/14/2013 17:40	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:40	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 17:40	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 17:40	GK
Surr: 4-Bromofluorobenzene	91.6	64.6-123		%REC	171171	1	01/14/2013 17:40	GK
Surr: Dibromofluoromethane	107	76.6-133		%REC	171171	1	01/14/2013 17:40	GK
Surr: Toluene-d8	94.4	77.8-120		%REC	171171	1	01/14/2013 17:40	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

Client: URS	Client Sample ID: RW-3
Project Name: Emory	Collection Date: 1/10/2013 7:12:00 AM
Lab ID: 1301773-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:11	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:11	GK
Tetrachloroethene	54	5.0		ug/L	171171	1	01/14/2013 18:11	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:11	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:11	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 18:11	GK
Surr: 4-Bromofluorobenzene	90.3	64.6-123		%REC	171171	1	01/14/2013 18:11	GK
Surr: Dibromofluoromethane	105	76.6-133		%REC	171171	1	01/14/2013 18:11	GK
Surr: Toluene-d8	95.3	77.8-120		%REC	171171	1	01/14/2013 18:11	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

Client: URS	Client Sample ID: RW-1
Project Name: Emory	Collection Date: 1/10/2013 7:22:00 AM
Lab ID: 1301773-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:41	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:41	GK
Tetrachloroethene	120	5.0		ug/L	171171	1	01/14/2013 18:41	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:41	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 18:41	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 18:41	GK
Surr: 4-Bromofluorobenzene	92	64.6-123		%REC	171171	1	01/14/2013 18:41	GK
Surr: Dibromofluoromethane	106	76.6-133		%REC	171171	1	01/14/2013 18:41	GK
Surr: Toluene-d8	94.1	77.8-120		%REC	171171	1	01/14/2013 18:41	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

Client: URS	Client Sample ID: RW-5
Project Name: Emory	Collection Date: 1/10/2013 8:30:00 AM
Lab ID: 1301773-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 13:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 13:10	GK
Tetrachloroethene	230	50		ug/L	171171	10	01/14/2013 14:40	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 13:10	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 13:10	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 13:10	GK
Surr: 4-Bromofluorobenzene	90.2	64.6-123		%REC	171171	1	01/14/2013 13:10	GK
Surr: 4-Bromofluorobenzene	90.1	64.6-123		%REC	171171	10	01/14/2013 14:40	GK
Surr: Dibromofluoromethane	108	76.6-133		%REC	171171	1	01/14/2013 13:10	GK
Surr: Dibromofluoromethane	97.9	76.6-133		%REC	171171	10	01/14/2013 14:40	GK
Surr: Toluene-d8	91	77.8-120		%REC	171171	10	01/14/2013 14:40	GK
Surr: Toluene-d8	95.1	77.8-120		%REC	171171	1	01/14/2013 13:10	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

Client: URS	Client Sample ID: RW-4
Project Name: Emory	Collection Date: 1/10/2013 9:51:00 AM
Lab ID: 1301773-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 20:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 20:10	GK
Tetrachloroethene	93	5.0		ug/L	171171	1	01/14/2013 20:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 20:10	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 20:10	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 20:10	GK
Surr: 4-Bromofluorobenzene	92.3	64.6-123		%REC	171171	1	01/14/2013 20:10	GK
Surr: Dibromofluoromethane	110	76.6-133		%REC	171171	1	01/14/2013 20:10	GK
Surr: Toluene-d8	94	77.8-120		%REC	171171	1	01/14/2013 20:10	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

Client: URS	Client Sample ID: RW-2
Project Name: Emory	Collection Date: 1/10/2013 12:20:00 PM
Lab ID: 1301773-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					(SW5030B)			
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 20:40	GK
cis-1,2-Dichloroethene	90	5.0		ug/L	171171	1	01/14/2013 20:40	GK
Tetrachloroethene	37	5.0		ug/L	171171	1	01/14/2013 20:40	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 20:40	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 20:40	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 20:40	GK
Surr: 4-Bromofluorobenzene	100	64.6-123		%REC	171171	1	01/14/2013 20:40	GK
Surr: Dibromofluoromethane	103	76.6-133		%REC	171171	1	01/14/2013 20:40	GK
Surr: Toluene-d8	92.8	77.8-120		%REC	171171	1	01/14/2013 20:40	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

Client: URS	Client Sample ID: TRIP BLANK
Project Name: Emory	Collection Date: 1/10/2013
Lab ID: 1301773-009	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:10	GK
Tetrachloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:10	GK
Trichloroethene	BRL	5.0		ug/L	171171	1	01/14/2013 16:10	GK
Vinyl chloride	BRL	2.0		ug/L	171171	1	01/14/2013 16:10	GK
Surr: 4-Bromofluorobenzene	87.3	64.6-123		%REC	171171	1	01/14/2013 16:10	GK
Surr: Dibromofluoromethane	100	76.6-133		%REC	171171	1	01/14/2013 16:10	GK
Surr: Toluene-d8	92.9	77.8-120		%REC	171171	1	01/14/2013 16:10	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 UPS

Work Order Number 1301773

Checklist completed by [Signature] Date 11/11/13

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 33 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.

Client: URS
 Project Name: Emory
 Workorder: 1301773

ANALYTICAL QC SUMMARY REPORT

BatchID: 171171

Sample ID: MB-171171	Client ID:	Units: ug/L	Prep Date: 01/14/2013	Run No: 236454							
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 171171	Analysis Date: 01/14/2013	Seq No: 4951569							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	46.23	0	50	0	92.5	64.6	123	0	0	0	0
Surr: Dibromofluoromethane	52.63	0	50	0	105	76.6	133	0	0	0	0
Surr: Toluene-d8	46.07	0	50	0	92.1	77.8	120	0	0	0	0

Sample ID: LCS-171171	Client ID:	Units: ug/L	Prep Date: 01/14/2013	Run No: 236454							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 171171	Analysis Date: 01/14/2013	Seq No: 4951567							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	49.10	5.0	50	0	98.2	61.1	142	0	0	0	0
Trichloroethene	54.25	5.0	50	0	108	70	135	0	0	0	0
Surr: 4-Bromofluorobenzene	48.69	0	50	0	97.4	64.6	123	0	0	0	0
Surr: Dibromofluoromethane	54.53	0	50	0	109	76.6	133	0	0	0	0
Surr: Toluene-d8	47.28	0	50	0	94.6	77.8	120	0	0	0	0

Sample ID: 1301773-006AMS	Client ID: RW-5	Units: ug/L	Prep Date: 01/14/2013	Run No: 236454							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 171171	Analysis Date: 01/14/2013	Seq No: 4951608							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	563.7	50	500	0	113	60	168	0	0	0	0
Trichloroethene	554.5	50	500	0	111	71.1	154	0	0	0	0
Surr: 4-Bromofluorobenzene	504.8	0	500	0	101	64.6	123	0	0	0	0
Surr: Dibromofluoromethane	540.9	0	500	0	108	76.6	133	0	0	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		

Client: URS
 Project Name: Emory
 Workorder: 1301773

ANALYTICAL QC SUMMARY REPORT

BatchID: 171171

Sample ID: 1301773-006AMS	Client ID: RW-5	Units: ug/L	Prep Date: 01/14/2013	Run No: 236454							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 171171	Analysis Date: 01/14/2013	Seq No: 4951608							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Toluene-d8	481.9	0	500	0	96.4	77.8	120	0	0	0	
------------------	-------	---	-----	---	------	------	-----	---	---	---	--

Sample ID: 1301773-006AMSD	Client ID: RW-5	Units: ug/L	Prep Date: 01/14/2013	Run No: 236454							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 171171	Analysis Date: 01/14/2013	Seq No: 4951610							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	502.9	50	500	0	101	60	168	563.7	11.4	18.6	
Trichloroethene	521.3	50	500	0	104	71.1	154	554.5	6.17	20	
Surr: 4-Bromofluorobenzene	505.0	0	500	0	101	64.6	123	504.8	0	0	
Surr: Dibromofluoromethane	539.5	0	500	0	108	76.6	133	540.9	0	0	
Surr: Toluene-d8	470.7	0	500	0	94.1	77.8	120	481.9	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	



July 05, 2013

Brent Jacobs
URS
400 Northpark Town Center
Atlanta GA 30328

TEL: (678) 808-8915
FAX: (678) 808-8400

RE: Emory - N. Decatur Rd

Dear Brent Jacobs:

Order No: 1306099

Analytical Environmental Services, Inc. received 9 samples on 6/27/2013 9:48:00 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 07/01/13-06/30/14.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) 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.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC.
 3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1306099

Date: 6/26/13 Page 1 of 1

#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED		REMARKS	No # of Containers
		DATE	TIME				PRESERVATION (See codes)			
1	MW-2	6/26	1131	X		GW				
2	MW-1		1235	X		GW				
3	MW-4		1410	X		GW				
4	RW-4		1540	X		GW				
5	RW-5		1650	X		GW				
6	RW-3	6/27	0750	X		GW				
7	RW-1		0758	X		GW				
8	RW-2		0848	X		GW				
9	Trip Blank					W				
10										
11										
12										
13										
14										

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME

PROJECT NAME:	PROJECT INFORMATION
PROJECT #:	
SITE ADDRESS:	
SEND REPORT TO:	
INVOICE TO:	
Turnaround Time Request: <input checked="" type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req) <input type="radio"/> Other	
STATE PROGRAM (if any): _____ E-mail? Y/N; Fax? Y/N DATA PACKAGE: I II III IV	

SPECIAL INSTRUCTIONS/COMMENTS:	SHIPMENT METHOD
* Only PCE, TCE, 1,1,1-TCE, cis-1,2-DCE, Trans-1,2-DCE, and Vinyl Chloride	OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURIER GREENHOUND 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+1 = 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

Client: URS	Client Sample ID: MW-2
Project Name: Emory - N. Decatur Rd	Collection Date: 6/26/2013 11:31:00 AM
Lab ID: 1306O99-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:15	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:15	GK
Tetrachloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:15	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:15	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:15	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 16:15	GK
Surr: 4-Bromofluorobenzene	96.3	64.6-123		%REC	178156	1	07/02/2013 16:15	GK
Surr: Dibromofluoromethane	96.1	76.6-133		%REC	178156	1	07/02/2013 16:15	GK
Surr: Toluene-d8	98.8	77.8-120		%REC	178156	1	07/02/2013 16:15	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

Client: URS	Client Sample ID: MW-1
Project Name: Emory - N. Decatur Rd	Collection Date: 6/26/2013 12:35:00 PM
Lab ID: 1306O99-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:44	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:44	GK
Tetrachloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:44	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:44	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 16:44	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 16:44	GK
Surr: 4-Bromofluorobenzene	97.8	64.6-123		%REC	178156	1	07/02/2013 16:44	GK
Surr: Dibromofluoromethane	96.9	76.6-133		%REC	178156	1	07/02/2013 16:44	GK
Surr: Toluene-d8	98.6	77.8-120		%REC	178156	1	07/02/2013 16:44	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

Client: URS	Client Sample ID: MW-4
Project Name: Emory - N. Decatur Rd	Collection Date: 6/26/2013 2:10:00 PM
Lab ID: 1306O99-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 17:42	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 17:42	GK
Tetrachloroethene	12	5.0		ug/L	178156	1	07/02/2013 17:42	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 17:42	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 17:42	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 17:42	GK
Surr: 4-Bromofluorobenzene	96.4	64.6-123		%REC	178156	1	07/02/2013 17:42	GK
Surr: Dibromofluoromethane	96.1	76.6-133		%REC	178156	1	07/02/2013 17:42	GK
Surr: Toluene-d8	98.3	77.8-120		%REC	178156	1	07/02/2013 17:42	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

Client: URS	Client Sample ID: RW-4
Project Name: Emory - N. Decatur Rd	Collection Date: 6/26/2013 3:40:00 PM
Lab ID: 1306O99-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:11	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:11	GK
Tetrachloroethene	68	5.0		ug/L	178156	1	07/02/2013 18:11	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:11	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:11	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 18:11	GK
Surr: 4-Bromofluorobenzene	95.7	64.6-123		%REC	178156	1	07/02/2013 18:11	GK
Surr: Dibromofluoromethane	96.9	76.6-133		%REC	178156	1	07/02/2013 18:11	GK
Surr: Toluene-d8	98.8	77.8-120		%REC	178156	1	07/02/2013 18:11	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

Client: URS	Client Sample ID: RW-5
Project Name: Emory - N. Decatur Rd	Collection Date: 6/26/2013 4:50:00 PM
Lab ID: 1306O99-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:39	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:39	GK
Tetrachloroethene	150	5.0		ug/L	178156	1	07/02/2013 18:39	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:39	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 18:39	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 18:39	GK
Surr: 4-Bromofluorobenzene	95	64.6-123		%REC	178156	1	07/02/2013 18:39	GK
Surr: Dibromofluoromethane	96.1	76.6-133		%REC	178156	1	07/02/2013 18:39	GK
Surr: Toluene-d8	99.2	77.8-120		%REC	178156	1	07/02/2013 18:39	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

Client: URS	Client Sample ID: RW-3
Project Name: Emory - N. Decatur Rd	Collection Date: 6/27/2013 7:50:00 AM
Lab ID: 1306O99-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:08	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:08	GK
Tetrachloroethene	85	5.0		ug/L	178156	1	07/02/2013 19:08	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:08	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:08	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 19:08	GK
Surr: 4-Bromofluorobenzene	95.4	64.6-123		%REC	178156	1	07/02/2013 19:08	GK
Surr: Dibromofluoromethane	96.8	76.6-133		%REC	178156	1	07/02/2013 19:08	GK
Surr: Toluene-d8	98.9	77.8-120		%REC	178156	1	07/02/2013 19:08	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

Client: URS	Client Sample ID: RW-1
Project Name: Emory - N. Decatur Rd	Collection Date: 6/27/2013 7:58:00 AM
Lab ID: 1306O99-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:38	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:38	GK
Tetrachloroethene	110	5.0		ug/L	178156	1	07/02/2013 19:38	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:38	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 19:38	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 19:38	GK
Surr: 4-Bromofluorobenzene	96.8	64.6-123		%REC	178156	1	07/02/2013 19:38	GK
Surr: Dibromofluoromethane	96.3	76.6-133		%REC	178156	1	07/02/2013 19:38	GK
Surr: Toluene-d8	99.2	77.8-120		%REC	178156	1	07/02/2013 19:38	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

Client: URS	Client Sample ID: RW-2
Project Name: Emory - N. Decatur Rd	Collection Date: 6/27/2013 8:48:00 AM
Lab ID: 1306O99-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 20:07	GK
cis-1,2-Dichloroethene	12	5.0		ug/L	178156	1	07/02/2013 20:07	GK
Tetrachloroethene	490	50		ug/L	178156	10	07/03/2013 11:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 20:07	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 20:07	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 20:07	GK
Surr: 4-Bromofluorobenzene	95.3	64.6-123		%REC	178156	1	07/02/2013 20:07	GK
Surr: 4-Bromofluorobenzene	95.9	64.6-123		%REC	178156	10	07/03/2013 11:56	GK
Surr: Dibromofluoromethane	94.7	76.6-133		%REC	178156	10	07/03/2013 11:56	GK
Surr: Dibromofluoromethane	97.6	76.6-133		%REC	178156	1	07/02/2013 20:07	GK
Surr: Toluene-d8	99.3	77.8-120		%REC	178156	1	07/02/2013 20:07	GK
Surr: Toluene-d8	99	77.8-120		%REC	178156	10	07/03/2013 11:56	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

Client: URS	Client Sample ID: TRIP BLANK
Project Name: Emory - N. Decatur Rd	Collection Date: 6/27/2013
Lab ID: 1306O99-009	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
1,1-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 15:17	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 15:17	GK
Tetrachloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 15:17	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 15:17	GK
Trichloroethene	BRL	5.0		ug/L	178156	1	07/02/2013 15:17	GK
Vinyl chloride	BRL	2.0		ug/L	178156	1	07/02/2013 15:17	GK
Surr: 4-Bromofluorobenzene	96.2	64.6-123		%REC	178156	1	07/02/2013 15:17	GK
Surr: Dibromofluoromethane	97.6	76.6-133		%REC	178156	1	07/02/2013 15:17	GK
Surr: Toluene-d8	98.8	77.8-120		%REC	178156	1	07/02/2013 15:17	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 URS-CORP

Work Order Number 1306094

Checklist completed by [Signature] Date 6/27/13

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 3.5 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.

Client: URS
Project Name: Emory - N. Decatur Rd
Workorder: 1306O99

ANALYTICAL QC SUMMARY REPORT

BatchID: 178156

Sample ID: MB-178156	Client ID:	Units: ug/L	Prep Date: 07/01/2013	Run No: 247233							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 178156	Analysis Date: 07/01/2013	Seq No: 5181374							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	49.54	0	50.00		99.1	64.6	123				
Surr: Dibromofluoromethane	48.59	0	50.00		97.2	76.6	133				
Surr: Toluene-d8	49.79	0	50.00		99.6	77.8	120				

Sample ID: LCS-178156	Client ID:	Units: ug/L	Prep Date: 07/01/2013	Run No: 247233							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 178156	Analysis Date: 07/01/2013	Seq No: 5181373							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	50.33	5.0	50.00		101	61.1	142				
Trichloroethene	56.96	5.0	50.00		114	70	135				
Surr: 4-Bromofluorobenzene	50.28	0	50.00		101	64.6	123				
Surr: Dibromofluoromethane	49.33	0	50.00		98.7	76.6	133				
Surr: Toluene-d8	50.15	0	50.00		100	77.8	120				

Sample ID: 1306Q89-002AMS	Client ID:	Units: ug/L	Prep Date: 07/01/2013	Run No: 247233							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 178156	Analysis Date: 07/02/2013	Seq No: 5181377							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	47.63	5.0	50.00		95.3	60	168				
Trichloroethene	50.31	5.0	50.00		101	71.1	154				
Surr: 4-Bromofluorobenzene	51.47	0	50.00		103	64.6	123				
Surr: Dibromofluoromethane	49.57	0	50.00		99.1	76.6	133				

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: URS
 Project Name: Emory - N. Decatur Rd
 Workorder: 1306099

ANALYTICAL QC SUMMARY REPORT

BatchID: 178156

Sample ID: 1306Q89-002AMS	Client ID:	Units: ug/L	Prep Date: 07/01/2013	Run No: 247233							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 178156	Analysis Date: 07/02/2013	Seq No: 5181377							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Toluene-d8 49.67 0 50.00 99.3 77.8 120

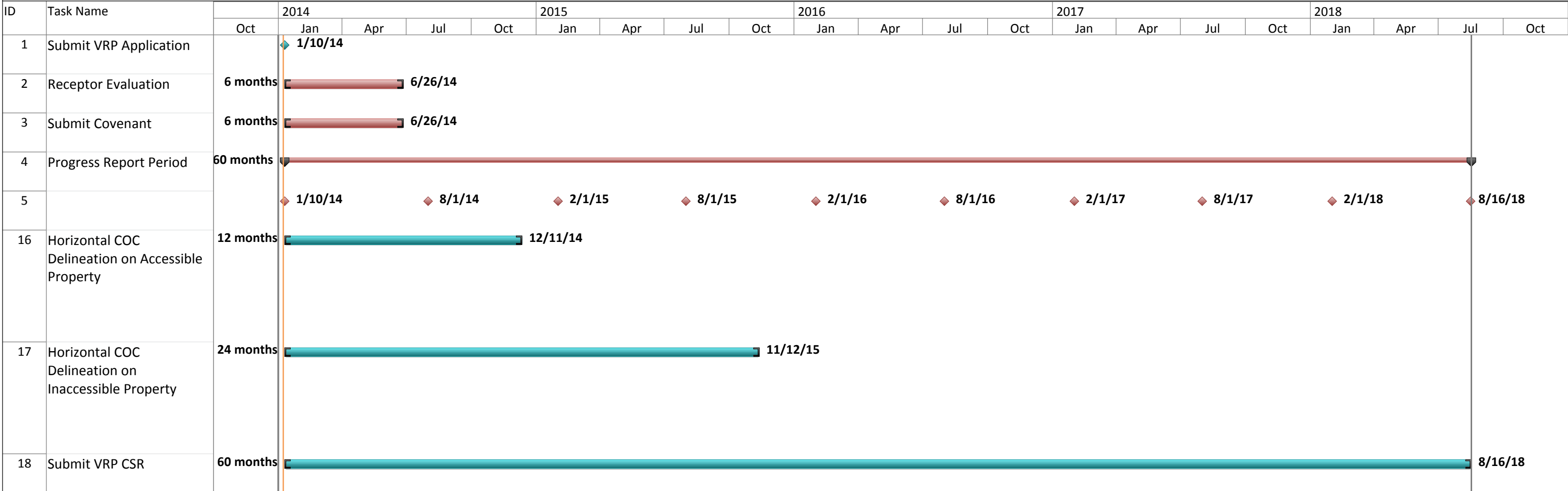
Sample ID: 1306Q89-002AMSD	Client ID:	Units: ug/L	Prep Date: 07/01/2013	Run No: 247233							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 178156	Analysis Date: 07/02/2013	Seq No: 5181378							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	47.03	5.0	50.00		94.1	60	168	47.63	1.27	18.6	
Trichloroethene	48.78	5.0	50.00		97.6	71.1	154	50.31	3.09	20	
Surr: 4-Bromofluorobenzene	50.44	0	50.00		101	64.6	123	51.47	0	0	
Surr: Dibromofluoromethane	49.33	0	50.00		98.7	76.6	133	49.57	0	0	
Surr: Toluene-d8	49.63	0	50.00		99.3	77.8	120	49.67	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		

APPENDIX C
Milestone Schedule

Emory University
North Decatur Road/Burlington Road
HSI 10121



Date: Wed 1/8/14	Task		External Tasks		Manual Task		Finish-only		Progress	
	Split		External Milestone		Duration-only		Deadline		Slippage	
	Milestone		Inactive Task		Manual Summary Rollup		Baseline			
	Summary		Inactive Milestone		Manual Summary		Baseline Milestone			
	Project Summary		Inactive Summary		Start-only		Baseline Summary			