GEORGIA VOLUNTARY REMEDIATION PROGRAM
VOLUNTARY REMEDIATION PLAN

Date: March 31, 2013

Site Name: Former Oxford Chemical Property, HSRA Sublisted Property of the General Electric International, Inc. Apparatus Service Center Site, 5035 Peachtree Boulevard, Chamblee, DeKalb County, Georgia HSI No. 10072.

Site Address: 5001 Peachtree Boulevard, Chamblee, DeKalb County, Georgia

This electronic copy of the Prospective Purchasers Compliance Status Report for the above referenced property is complete, identical to the paper copy, and virus free.

Voluntary Remediation Plan Voluntary Remediation Program

Former Oxford Chemical Property 5001 Peachtree Boulevard, Chamblee, DeKalb County, Georgia

HSRA Sublisted Property
HSI No. 10072

226278.00

Rathon Corporation
1225 17th Street, Suite 3200,
Denver, Colorado 80202

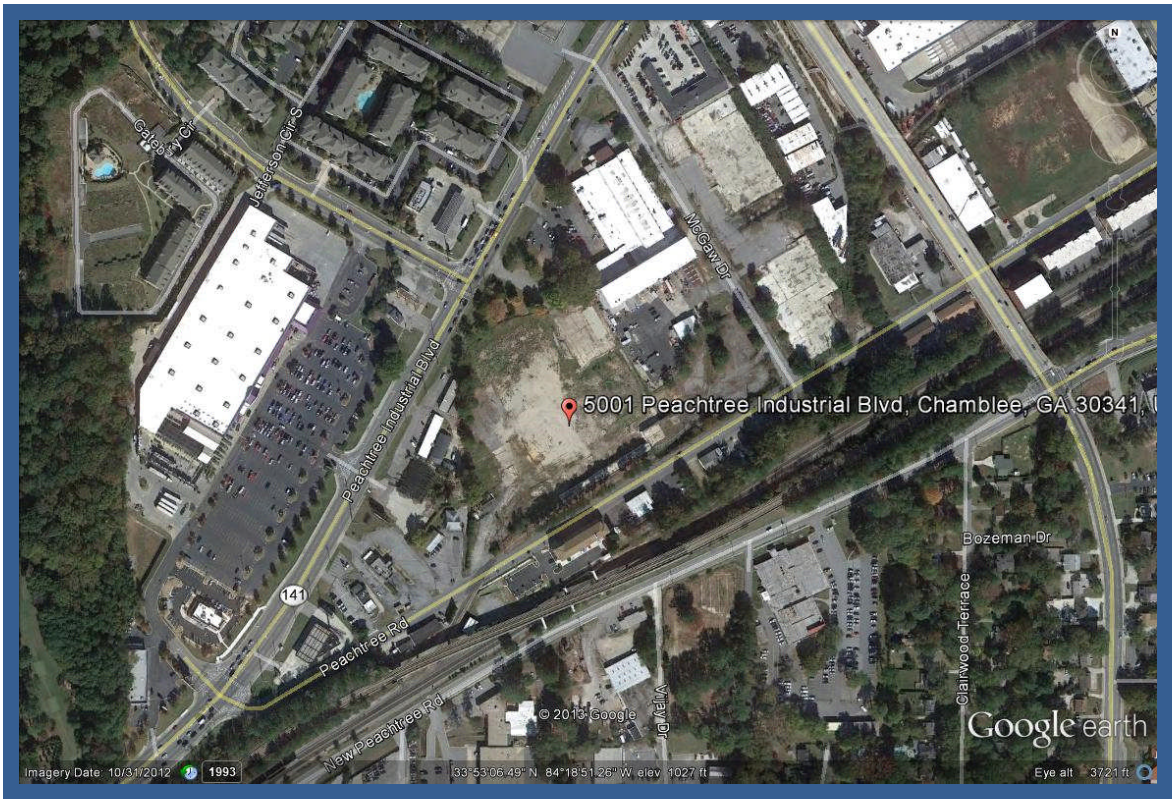
The Hillshire Brands Company
400 S. Jefferson Street,
Chicago, IL 60607

770.622.6766
Leonard Diprima, PG

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

March 31, 2013

Voluntary Remediation Plan
Voluntary Remediation Program



Former Oxford Chemical Property
5001 Peachtree Boulevard, Chamblee, DeKalb County, Georgia

HSRA Sublisted Property of the
General Electric International, Inc. Apparatus Service Center Site
5035 Peachtree Boulevard, Chamblee, DeKalb County, Georgia
HSI No. 10072

Prepared For

Rathon Corporation
P.O. Box 4030, Suite
Golden, CO 80401

The Hillshire Brands Company
400 S. Jefferson Street
Chicago, IL 60607

Prepared by

WOODARD &CURRAN

2055 Sugarloaf Circle, Suite 175, Duluth, Georgia 30097

Project No. 226278.00
March 31, 2013

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Voluntary Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
COMPANY NAME	Rathon Corporation				
CONTACT PERSON/TITLE	Michael J. Glade, P.E. / Vice President				
ADDRESS	1225 17th Street, Suite 3200, Denver, Colorado 80202				
PHONE	(303) 927-3777	*FAX*	N/A	*E-MAIL*	michael.glade@molsoncoors.com
COMPANY NAME	The Hillshire Brands Company				
CONTACT PERSON/TITLE	Kent B. Magill, Esq. / Executive Vice President				
ADDRESS	400 S. Jefferson Street, Chicago, IL 60607				
PHONE	312-614-7962	*FAX*	N/A	*E-MAIL*	kent.magill@hillshirebrands.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP					
NAME	Leonard J. Diprima, Jr.			*GA PE/PG NUMBER*	949
COMPANY	Woodard & Curran				
ADDRESS	2055 Sugarloaf Circle, Suite 175, Duluth, GA 30097				
PHONE	(770)622-6766	*FAX*	(770) 396-0095	*E-MAIL*	Ldiprima@woodardcurran.com

APPLICANT'S CERTIFICATION

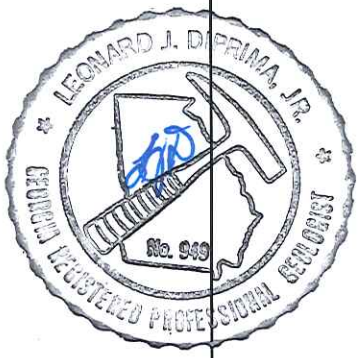
In order to be considered a qualifying property for the VRP:
(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
(A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
(B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or
(C) A facility required to have a permit under Code Section 12-8-66.
(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.
(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.
In order to be considered a participant under the VRP:
(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.
(2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

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.
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.

APPLICANT'S SIGNATURE	Michael Wade		
APPLICANT'S NAME/TITLE (PRINT)	MICHAEL WADE / VP	DATE	03/27/13
APPLICANT'S SIGNATURE			
APPLICANT'S NAME/TITLE (PRINT)	Kent B. Magill / EVP	DATE	3/29/13

QUALIFYING PROPERTY INFORMATION			
TAX PARCEL ID	18-278-14-002	PROPERTY SIZE (ACRES)	9.11
PROPERTY ADDRESS	5001 Peachtree industrial Boulevard		
CITY	Chamblee	COUNTY	DeKalb
LATITUDE	33° 53' 07.24" N	LONGITUDE	84° 18' 52.14" W
PROPERTY OWNER(S)	Rathon Corporation	PHONE #	(303) 927-3777
MAILING ADDRESS	1225 17m Street, Suite 3200		
CITY	Denver	STATE/ZIP	Colorado 80202

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.	Enclosed	
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).	Figure 2	
4.	**ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	Enclosed	
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 during the preceding period. A Gantt chart format is preferred for the milestone schedule. 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:	Enclosed	
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;	**Incomplete Soil: Section 6, Figure 14, Table 5. Incomplete Groundwater: Section 6, Figures 15-31, Table 6.**	

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;	**Incomplete: Section 6, Figure 15-31, Table 6.**	
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	**Incomplete: Sections 6-10**	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	**Sections 8-10**	
6.	**SIGNED AND SEALED PE/PG CERTIFICATION AND SUPPORTING DOCUMENTATION:** "I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board 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. 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. 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." Leonard J. Diprima, Jr. / Georgia PG #949 — Printed Name and GA PE/PG Number 3/31/2013 — Date Signature and Stamp		

VOLUNTARY REMEDIATION PLAN FORM 03/30/2010

Section 1
Introduction and Site Qualifications

Woodard & Curran has prepared this Voluntary Remediation Plan (VRP) for the Former Oxford Chemical property located at 5001 Peachtree Industrial Boulevard, Chamblee, DeKalb County, Georgia; Tax Parcel No. 18-278-14-002 (Site). The Site is currently regulated under the Georgia Environmental Protection Division (EPD) Hazardous Site Response Act (HSRA) Program as a sublisted property to the immediately adjacent General Electric International, Inc. Apparatus Service Center site (GE Facility), 5035 Peachtree Industrial Boulevard, Chamblee, Georgia, Hazardous Site Inventory (HSI) No. 10786. The Site location is presented on Figure 1. The VRP is intended for review by the EPD under the Voluntary Remediation Program Act (Act). This VRP is submitted with the intention of moving the Site from the HSRA Program into the Georgia Voluntary Remediation Program (the Program). Compliance activities are currently being conducted under the HSRA Program through an approved HSRA Corrective Action Plan (CAP); *Corrective Action Plan, Rathon Corp. Property Sublisted Under Hazardous Site Inventory #10072, December 1, 2005*, prepared by Environmental Strategies Corporation of Reston, Virginia. If approved by the EPD, the activities outlined in this VRP will replace the activities currently carried out under the HSRA CAP.

The Former Oxford Chemical property's status has been reviewed, and it meets the requirements of a "qualifying property" as defined by the Act. The Former Oxford Chemical property is currently sublisted on the HSI as the result of a release of regulated constituents and source material originating from the adjacent GE Facility. In addition, there have been historical releases of EPD regulated substances on the Site as a result of the former site operations. A HSRA Notification regarding these historical releases at the Site was submitted to the EPD on December 30, 1994, which resulted in the issuance of a "no listing" determination by EPD in 1995. The Site is not listed on the federal National Priorities List; is not undergoing response activities required by the United States Environmental Protection Division (USEPA); is not a permitted facility under the Resource Conversation Recovery Act (RCRA); and does not have any liens filed against the property pursuant to OCGA 12-8-96(e) or 12-13-12(b). Other properties may be identified during the execution of this VRP as being impacted by the historical releases from the Site. Rathon Corporation (Rathon) and The Hillshire Brands Company (Hillshire), as the participants in the Program, will approach such property owners, if required, to move any affected properties into the Program as qualifying properties under the Site. Figure 2 is a tax parcel map that shows the location of Former Oxford Chemical property and surrounding properties. A Warranty Deed for the Former Oxford Chemical property is in Appendix A.

The Site currently has no permanent structures. The former chemical facility was demolished in 2008 and only the on grade concrete slabs and former asphalt paved areas remain. Figure 3 shows a current Site plan. The former facility was operated from the 1940's to 1991 and produced up to 500 separate products ranging from waxes, soaps, solvents, disinfectants, polishes, deodorants, cleaners, paint strippers to insecticides based upon consumer demand.

As stated above, the Site has had release of regulated substances to soil and groundwater and has also been impacted by a release of mineral oil containing polychlorinated biphynels (PCBs), volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) and resulting groundwater impacts from the GE Facility immediately adjacent to the north-northeast. GE has been performing assessment and corrective action of its release under the HSRA Program. The GE release has resulted in known free product and groundwater impacts under the GE property and the north-northeast side of the Former Oxford Chemical property. GE has been conducting active product recovery and monitored natural attenuation (MNA) corrective action for groundwater on the Site.

Since the 1980's Rathon/Hillshire have conducted several rounds of assessment of the onsite and GE releases, and targeted soil and groundwater remediation activities at the Site. Rathon/Hillshire have conducted MNA corrective action related to the GE release on the Site under the approved December 1, 2005 HSRA CAP. Targeted soil remediation of the onsite historical releases has been conducted by excavation and proper offsite disposal, and by soil vapor extraction (SVE) techniques. Voluntary groundwater remediation has also been conducted by MNA and the operation of a groundwater pump and treat system along the northern downgradient property boundary.

Section 2
Site Description, Ownership, Operational History and Surrounding Properties

2.1 Site Description, Ownership and Operational History

The Rathon property is located at 5001 Peachtree Industrial Boulevard in Chamblee, DeKalb County, Georgia (Figure 1). The property comprises approximately 9.11 acres and historically included four attached buildings with approximately 157,000 square feet of floor space and an approximately 2,800-square-foot metal storage building on the east portion of the Site (Figure 4). The main buildings were constructed between 1946 and 1968 and the metal storage building was constructed in 1988. Operations at the facility ceased in 1991 and the buildings were demolished in 2007-2008. The buildings were surrounded by paved areas and the property has a chain- link fence around the perimeter. All asphalt paving and building slabs are still in place.

The known history of ownership is as follows, and in some areas is conflicting based upon historical documents. A title search has not been conducted by Woodard & Curran.

- 1940's to 1963: Boyle-Midway Company; produced waxes, household cleaners, insecticides, and other unknown products.
- 1963 to 1966: Center Chemical Company operated the facility and during this time the name was changed to Oxford Chemicals, Inc. (Oxford Chemicals). Other historical reports state that Gendex Realty Corporation (Gendex) purchased the property/facility in 1960 from American Home Products. Gendex was a wholly owned subsidiary of Oxford Chemicals, which leased the Site from Gendex. The range of products produced is unknown.
- 1966 to 1983: Consolidated Foods Corporation, later named Sara Lee Corporation (Sara Lee), through an asset purchase, obtained Oxford Chemicals and the stock of Gendex and through 1978 operated the facility as an unincorporated division of Consolidated Foods Corporation. On December 31, 1977 Oxford Chemicals was incorporated as a wholly-owned subsidiary of Sara Lee.
- 1983 to 1996: Diversey Corporation (Diversey) purchased Oxford Chemicals from Sara Lee on October 31, 1983 and operated the facility until December 1991, at which time the facility ceased manufacturing. From December 1991 through about June 1992, Diversey undertook a plant closure, which included selling existing inventory or transferring product at the Site to other Diversey plants, removing and selling equipment, and removal of interior and exterior aboveground storage tanks (ASTs).
- 1996 to present: In April 1996, Diversey changed its name to Rathon Corp. and continued to address any issues associated with the Site.

The Oxford Chemical facility during its history, based on historical documents reviewed, produced up to 500 separate products ranging from waxes, soaps, solvents, disinfectants, polishes, deodorants, cleaners, paint strippers to insecticides based upon consumer demand. For a period in the 1980's the facility produced disinfectants specifically for the food industry. The range of chemicals stored on Site for the various products was diverse. A list of raw materials potentially used at the facility at various points from approximately the mid-1970s to the end of manufacturing operations in December 1991, obtained from historical documents, along with the Oxford raw material code is provided in Table 2.1 of the 1993 ERM Report in Appendix B.

Per the report prepared by Environmental Resources Management-North Central, Inc. (ERM) in 1993, the plant was divided into office space, warehouse space, liquid manufacturing, the powder plant, and bleach manufacturing (Figure 4). Historical documents indicate Building B was constructed in 1946, Building D in 1956, the office building in 1965, the powder manufacturing building (Building C) in 1968 and a flammable storage building in 1988.

Eastern UST/AST Farms

The facility formerly had an AST farm and an underground storage tank (UST) farm on the east side of the plant, a drum storage area, and an earthen tank farm on the west side of the plant. It operated five USTs installed prior to 1963 on the eastern portion of the property until 1978. This UST tank farm consisted of a 9,200- gallon tar acid tank, a 4,000-gallon fuel oil tank, a 4,000-gallon trichloroethylene tank, and a 500-gallon tank of naphtha. Two 5,000-gallon USTs storing methylene chloride and xylene were located north of the boiler room. These two USTs were excavated in 1986. In 1987, four of the five USTs not in service were removed and the 4,000 gallon, former trichloroethylene tank was abandoned in place because it was partially located under the existing building. The work was performed under the supervision of WAPORA, an environmental consulting firm. Five additional ASTs were previously located in the same area. The ASTs consisted of a 6,000 gallon muriatic acid tank, a 4,200 gallon sulfuric acid tank, a 1,700 gallon clearline tanks, a 2,100 gallon BC-10 tank and a phosphoric acid tank of unknown volume. These tanks appear to have been removed in 1987 to facilitate the closure of the five USTs in this area. (See ERM Figure 2.2, Appendix B).

A more recent AST was also present to the east in the area of the former UST farm, as shown on Figure 4, and on ERM Figure 2.4 in Appendix B. Following the removal of the USTs in 1987, the facility constructed a concrete containment for ASTs in this area (see ERM Figure 2.4, Appendix B). Historical reports indicated that the ASTs likely stored acids and remained in operation until the facility ceased operations.

Drum Storage Areas

From the 1970s through about 1987, an empty drum discharge chute and storage area also occupied the area just south of the boiler room as shown on Figure 4. The empty drums previously contained various chemicals used in the liquid manufacturing area and were picked up by a recycler periodically.

A 1987 ESC report indicated empty drums were also stored in the southwest area of the Site, shown on Figure 4. Historical reports indicated that in December 1987, the area in the northeast corner of the property, where the flammables drum storage building had been located, was being used for storage of empty drums. The drums were apparently stored on a concrete pad. This area was used until the facility closed.

In 1988, a 2,800-square-foot metal building was constructed on the east side of the property for storage of drummed flammable materials. There had previously been another flammable materials building to the north of the new building, but it was removed at approximately the same time the new building was constructed.

Western AST Farm

Another AST farm was located to the west of the manufacturing building as shown on Figure 4. An expanded drawing of this area is shown on ERM Figure 2.5 and ERM Table 2.5 in Appendix B summarizes the raw materials reported by ESC in 1988 to be stored in the ASTs. The tanks were filled by rail car until approximately 1980. Reportedly, the bulk unloading area for the rail cars was adjacent to the manufacturing building as the railroad tracks enter the building, and the truck unloading area was immediately adjacent to the tank farm. The rail car unloading pipes were located aboveground along the side of the building and extended from the railroad tracks to the pump room. Material in the rail cars was discharged by gravity to the pump room, and the pumps were used to transfer the material to the appropriate ASTs. The transfer lines from the pump room to the western AST farm were located underground. Until 1991 raw materials were also delivered by tanker truck, and were unloaded directly to tanks in the western tank farm at an unloading station on the east side of the tank farm. The liquids were pumped from the ASTS through underground lines to the pump room and distributed by pipelines to the liquid manufacturing area in Building B. These underground lines were replaced once in the 1970's.

Wastewater Pretreatment Plant

A wastewater pretreatment plant was constructed around 1977 or 1978 in the southwest portion of the Site as shown on Figure 4. All wastewaters from the manufacturing areas were collected in floor drains and piped to the neutralization pit. It consisted of a large neutralization basin for pH adjustment and provision for oil and other floating material removal. Discharge from the pretreatment plant was by permit to the DeKalb County sewer system.

Bleach Manufacturing Area

Bleach was manufactured in a series of ASTs along the southwest corner of the building (see Figure 4) from 1980 to 1987, and was made by blending concentrated sodium hydroxide, water, and chlorine gas. It was indicated in historical documents that the bleach manufacturing was an intermittent operation and eventually phased out.

Liquid Manufacturing Area – Building B

Based on historical documents, the blending, packaging, and storing of liquid products occurred in Building B. There were approximately 50 tanks for storing raw materials in the building. Bulk raw materials were transferred to the storage tanks from the east unloading station. In the liquid manufacturing area, products were blended on a batch basis in mixing tanks. A mezzanine level on the east side of Building B was used to stage raw material drums and containers. At one point during the Site's operational history, finished products were transferred to as many as 200 smaller tanks for subsequent packaging. These tanks were kept in the liquid production area and the warehouse. Over time, Oxford Chemicals removed almost all of the finished goods storage tanks. Finished products were directly packaged in drums and containers and stored in the warehouse until distributed to customers.

Powder Mixing Area – Building C

Powder products were blended in Building C. Powdered raw materials were received by railcar, tanker truck, and containers until around 1980, at which time railcar deliveries ceased. Bulk shipments of powder materials were blown into silos in the building and delivered containers of powder were also kept in the building. Powder materials were blended in mixing tanks and then packaged in drums and containers. The containers of finished product were stored in the warehouse until distribution.

2.2 Surrounding Properties

The Rathon property is located at 5001 Peachtree Industrial Boulevard in Chamblee, DeKalb County, The property is currently bordered by commercial and industrial properties, as shown in Figure 5. The GE facility borders the property to the east. To the south the Site is bordered by Peachtree Road, beyond which are various commercial businesses. On the adjacent property to the west are various other commercial businesses. The Site is bordered to the north by Peachtree Industrial Boulevard. To the north-northwest across Peachtree Industrial Boulevard are a Lowe's home improvement store (formerly the location of a Frito Lay Bakery facility) and an abandoned former gas station. Due north, across Peachtree Industrial Boulevard is an active BP gas station; formerly a Chevron station (Facility ID #9044372) that has been identified as a leaking UST site.

The abandoned gas station, the former Charms Fina-Buddy's Convenience Store #12 (Facility ID #04440277) at 5000 Peachtree Industrial Boulevard, had a confirmed release reported on April 15, 1991 for which a No Further Action was granted. The facility reported another confirmed release on July 24, 1997, which the EPD UST Program lists as "In Remediation".

Section 3
Previous Environmental Investigations and Remediation

Prior to Woodard & Curran's involvement, several phases of soil and groundwater investigation and remediation have been conducted at the Site voluntarily since 1986, and under the HSRA Program since March 29, 2004 as a sublisted property to the releases at the adjacent General Electric International Inc. Apparatus Service Center, site HSI # 10072. The earliest known soil investigation at the Site was conducted in 1987. The chronology of Site investigation and remediation activities are summarized below.

- In April 1986, a deteriorated industrial sewer line was discovered in Building B, resulting in the collapse of portions of the plant floor, and nearby areas. As part of subsequent renovation activities the facility inspected all feeder and trunk lines. Problems were noted in the line from the acids packaging room, which intercepted a 24-inch manhole and continued toward the pretreatment system, a distance of approximately 75 feet. The pipe above the acid packaging room and the remaining trunk to the manhole just outside the building were found to be corroded but intact. Oxford Chemicals removed the corroded wastewater sewer pipe that ran from the drum loading area in the eastern part of the building to a manhole outside of the plant. The surrounding soils along the sewer line were excavated and transported for disposal off site at a landfill.

- Diversey retained ESC to evaluate potential soil and groundwater impacts associated with the deteriorated sewer lines in 1987. In addition to inspecting the collapsed sewer line area, ESC conducted a broader inspection of the facility. During the course of the investigation that included field events in 1987 and 1988 nine monitoring wells, MW-1 through MW-6, were installed and sampled, and a total of eight soil samples were collected from seven locations. The sample locations are shown on ESC Figure 3 (1988) in Appendix B. The investigations identified VOCs, SVOCs, and pesticides in soil and groundwater samples collected from the Site. In February 1988, 1.5 feet of light non-aqueous phase liquid (LNAPL) was discovered in monitoring well MW-3 in the immediate vicinity of the pump room that received raw materials through underground piping from the western tank farm. Historical releases were identified in various areas of the Site associated with facility operations.

- In August of 1991 the LNAPL and groundwater immediately below the LNAPL in MW-3 was characterized by ESC in an attempt to determine the source of, and type of LNAPL. Though the exact mixture could not be determined, it was characterized as a mixture of PAA, HSB, PAMYL (amyl acetate), ISOBUT (isobutyl acetate) and at least one other hydrocarbon distillate (ESC, October 10, 1991). A skimmer pump was installed in MW-3 to remove the floating oil in approximately December 1988 and operated for at least 1 year. The pump was removed in June 1992.

- In 1993, additional soil and groundwater investigation was conducted by ESC at the Oxford site. The scope of work consisted of advancing 25 shallow soil borings, collecting soil samples from each boring for chemical analysis, collecting and analyzing samples from the nine site monitoring wells, identifying sewers at the site and evaluating the potential for constituents to migrate in the backfill material, and conducting a groundwater survey at nine Geoprobe® locations to evaluate the extent of groundwater impacts. Sample locations are shown on Figures 4, 5 and 9 prepared by ESC in 1993 in Appendix B.

  A total of 21 soil borings (B-1 through B-21) and 4 hand auger borings were advanced. The investigation concentrated on three areas: the former western AST farm, the abandoned UST area, and inside the former liquid manufacturing building. Eight soil borings (B-1 through B-8) were advanced between the former western AST farm and the main building/pump room, six borings (B-9 through B-14) were drilled in the vicinity of the abandoned USTs, and seven borings (B-15 through B-21) were drilled inside the facility. Four hand auger borings were advanced within the earthen berm of the former western AST farm. A total of 39 soil samples from the drilled borings, including duplicates, were analyzed for VOCs, SVOCs, and selected samples were analyzed for pesticides and total petroleum hydrocarbons (TPH). Five additional samples were collected for analysis from hand-auger borings. VOCs and SVOCs were detected in the soil samples collected from borings advanced in all the areas assessed. Pesticides were detected in borings B-1 and B-2 advanced adjacent to the western AST farm berm.

  Groundwater samples were analyzed for VOCs and SVOCs. A forward library search was conducted to identify the first 15 tentatively identified VOCs and 25 SVOCs. Selected groundwater samples were analyzed for pesticides, TPH, metals, and selected water quality parameters. Groundwater samples results from monitoring wells on site were as follows:

  - VOCs: MW-3 through MW-9, MW-9 trace levels only;
  - SVOCs: MW-3, MW-4, MW-5, MW-7 and MW-8;
  - Pesticides: MW-3;
  - No constituents analyzed were detected in MW-1 and MW-2; and
  - Metals results cannot be considered reliable due to turbid samples.

  Groundwater samples were collected using Geoprobe® methods at nine locations focusing on the western property line (G-1, G-2, G-4, G-5), the former UST area/drum storage area (G-6, G-7, G-8), and one each was collected in the pump room area (G-9) and liquid manufacturing area (G-3). Samples were collected at the water table (13-22 ft. below ground surface (bgs)) and at refusal (32-28 ft. bgs) at three locations; G-1, G-2 and G-3. Samples were collected only at the water table at all other locations. Samples were analyzed on site for select VOCs using a portable gas chromatograph. Six samples were submitted for laboratory analysis of VOCs and SVOCs. These included split samples from G-1 and G-3, a duplicate of G-3, a split from the deeper G-2 sample, and the shallow samples collected at G-8 and G-9.

- In August 1993 and December 1993, groundwater samples were collected by ESC from the permanent monitoring wells on site; MW-1 through MW-9. In March 1994, ESC collected groundwater samples for treatability testing studies. In April 1994, ESC collected soil samples beneath the former pump room.

- In December 1994, a Release Notification/Reporting Form for the Rathon property was submitted by Diversey Corporation to the EPD in accordance with provisions of the HSRA. The notification identified the regulated substances and highest known concentrations that had been detected in soil and groundwater on the property. In 1995, the EPD issued a letter stating that, based on a review of the release notification; the property would not be placed on the HSI. The HSRA notification is in Appendix C. A copy of the "no listing" letter was not available.

- In 1997 and 1998, a dual-phase extraction (DPE) system was voluntarily installed on the Site by ESC to address affected soil and groundwater. A total of 38 DPE wells were installed, each having a soil vapor extraction (SVE) component and a groundwater pumping component. The vapor and groundwater effluent was sent to a treatment system constructed on the west side of the site (see Figure 4, ESC HSRA CAP 2005, Appendix B). The DVE system operated from June 1998 until 2008, when demolition of the building was scheduled. A portion of the groundwater treatment system remained in operation until 2012. The treated water was discharged to the DeKalb County sanitary sewer system under Permit Number DK00102.

- Several releases of oil have been reported at the adjacent GE facility. The GE HSRA Compliance Status Report (CSR) lists five separate releases between October 1970 and August 1994 (URS, 2002). GE began investigating the extent of LNAPL on the Site in 1995. The investigations detected several feet of oil at multiple locations on the Site. An automated oil recovery system was installed at the GE HSRA site in April 2001. GE recovered approximately 12,500 gallons of oil between 1994 and April 2001. In May 2002, the oil recovery system was expanded to include nine recovery wells on the Rathon property (RW-18 to RW-25 and RW-31). Since GE expanded the LNAPL recovery system in May 2002, approximately 540 gallons of LNAPL have been recovered from wells on the Site. The oil recovery system was shut down because the nine recovery wells no longer have significant amounts of LNAPL. The wells are now hand bailed or have absorbent socks for LNAPL recovery. LNAPL has been present in other wells that GE installed on the Site near the property boundary (e.g., BH-6, BH-9 and BH-10) and GE is manually recovering oil detected in these wells. Figure 6b, produced by URS, shows the recent history of the extent of LNAPL from the GE release.

- ESC collected additional soil and groundwater data in 2002 and 2003. Soil samples were collected from 33 borings across the Site. Groundwater samples were collected from 35 monitoring wells and recovery wells at the property in March 2003. The soil and groundwater sample locations are shown in ESC Figure 7 in Appendix B. The purpose of the sampling was to determine the distribution of chemicals of concern and compare the concentrations to RRS

calculated for the Site at that time. ESC determined, based on a comparison of the soil data, that two areas of soil contained COI concentrations greater than the then calculated Type 4 RRS; the former western AST farm and the former pump room. Near the former pump room, the soil samples collected from depths greater than 8 feet contained chemicals of concern at concentrations greater than RRS. Soil samples were not collected directly under the pump room due to accessibility problems. In the area of the former western AST farm, soil samples collected from the surface to a depth of 10 feet contained concentrations of certain pesticides greater than RRS calculated at that time. Groundwater sampling identified PCE, TCE, DCE, acetone, toluene, phenol, naphthalene's, chlorinated benzene's and other chemicals on the Site.

- On March 29, 2004, the Georgia EPD determined that the Site should be sublisted on the HSI as associated with HSI No. 10072, the adjacent GE HSRA site. The sublisting was due to the presence of LNAPL from the GE release on the Site.

- December 1, 2005 ESC submitted to the EPD HSRA Program a CAP for the sublisted property. As a result of a prior meeting with the HSRA Program, ESC presented the sublisted area as the portion of the Site that had been affected by releases associated with the GE facility. The proposed sublisted area encompassed approximately 15,500 square feet on the east side of the Site, as shown in Figure 3. MNA, institutional controls, and groundwater monitoring were presented to address groundwater on the proposed sublisted area and to comply with Type 4 non-residential RRS. It was assumed that GE would continue the LNAPL recovery program and achieve Type 4 standards for COCs migrating onto the Former Oxford Chemical property sublisted area. Implementation of MNA included the following elements:
    - Water level measurements site-wide at the GE facility and the Site;
    - Groundwater sampling for MNA screening;
    - Groundwater fate and transport modeling; and
    - Long term groundwater monitoring with annual reporting.

- On June 12, 2006, ESC submitted a HSRA CSR to the EPD for the proposed sublisted area.

- The EPD approved the CAP with conditions on January 29, 2007 (see Appendix C). ESC continued implementation of the CAP until 2010, when Winter Environmental (Winter) and then Woodard & Curran (in2012) was contracted to continue the site work. Annual Monitoring Reports have been submitted to the EPD HSRA Program for 2007 (WSP), 2008 (WSP), 2009 (WSP), 2010 (Winter), and 2011 (Winter).

- In 2008, the SVE system was shut down due to significantly decreased concentrations of VOCs recovered in the vapor phase. A portion of the groundwater extraction system was kept in operation along the western, downgradient property boundary following shut down of the DPE system. The recovered groundwater continued to be pretreated and discharged to the DeKalb County sanitary sewer system under Permit Number DK00102. The system remained in

operation until mid-2012, at which time problems were encountered with the effluent lines. The system is currently not currently operating.

- In 2008 all the remaining on-site structures were demolished. All above grade portions of the buildings were removed and the building slabs and paved areas were left in place. All the extraction system wells within the footprint of the building were abandoned.

- In May and June 2008, WSP Environment & Energy (WSP), successor to ESC, directed and managed the excavation and offsite disposal of impacted soil from four areas at the Site. The objective of the work was to remove soil that contained constituent concentrations greater than the Type 4 RRS presented in the 2007 Annual Monitoring Report prepared by WSP and Submitted to the EPD. Soil was removed from the following four areas: below the former western AST farm, below the former pump room, below the former eastern UST/AST farm and around the former sewer lines below the slab. The areas excavated are shown on Figure 7. Prior to the excavation activities, the groundwater treatment system was relocated from the former western tank farm to the southeast portion of the Site in order to allow for excavation of affected soil under the former western AST farm.

  A total of 4,076 tons of soil was excavated. Based on characterization of the soil, 1,274 tons were disposed of at the Subtitle D Clean Harbors facility in Lambton, Ontario, Canada; 1.132 tons were disposed of at the Waste Management Subtitle C landfill in Emelle, Alabama; and 1,118 tons were disposed of at Waste Management Subtitle D landfill in Ball Ground, Georgia.

  Verification samples were collected and analyzed for constituents identified as constituents of interest (COI) by WSP and the results compared to the Type 4 RRS presented in the 2007 Annual Monitoring Report. Verification sample locations are shown on Figure 8 and Figure 9.

Section 4
Topography/Geology/Hydrogeology

4.1 Site Topography

Topography across the Site, based upon visual relief and survey elevations of soil borings and monitoring wells, slopes generally from higher elevations along Peachtree Road, north to lower elevations along Peachtree Industrial Boulevard. Elevations along Peachtree Road range from approximately 1041 feet mean seal level (ft-msl), the highest point on the Site at the intersection of Peachtree Road and McGaw Drive, to approximately 1024 ft-msl at the southwest corner of the Site where the groundwater treatment system is currently located. There is a railroad spur that enters the southeast corner of the Site, runs along Peachtree Road and curves into the GE facility through the southeast corner of the Site. There is a sharp drop off from this spur in the central portion of the southern property boundary, inside the Site fence, onto the primary area of the Site. The central area of the Site is slightly higher at approximately 1028 ft-msl, where the slab of the former main Oxford Chemical facility is located. The lowest elevation of the Site is along Peachtree Industrial Boulevard at approximately 1018 ft-msl. Surface water runoff generally exits the Site along Peachtree Industrial Boulevard, and from the southeast corner of the property at Peachtree Road. Storm water drop inlets are present in the northeast corner of the property in the immediate vicinity of the concrete slab of the former warehouse. This area is paved with concrete and asphalt and receives runoff primarily from the immediate paved surfaces and the GE property.

GE is located on a localized topographic ridge that runs southeast to northeast down the center of the GE property and tapers off on the north side of Peachtree Industrial Boulevard. This topographic feature locally affects groundwater flow and surface water runoff, making the GE property a flow divide for each of these flow regimes.

4.2 Geology

Chamblee, Georgia is located within the Piedmont physiographic province. The lithologic units associated with the Piedmont province in the greater Atlanta area consist of Late Precambrian to Early Paleozoic metamorphic rocks (gneiss, schist and quartzite) which together comprise the Atlanta Group. The region is underlain by the Norcross Gneiss unit and consists of light gray plagioclase-rich gneiss with some mica and epidote minerals (McConnell and Abrams, 1984).

The subsurface geology at the former Oxford Chemicals property is typical of the Piedmont province, with regolith forming a distinct layer of unconsolidated materials over the metamorphic bedrock. A geologic cross-section map prepared by WSP for the Site is presented as Figure 10. The regolith appears to be generally uniform in thickness (approximately 30 feet) across the Site, although top of bedrock data is limited. The unconsolidated materials consist of a surficial layer of fill material, which is underlain by saprolite. The fill material is comprised of clayey silt, sand, and gravel, and ranges in thickness from slightly less than one foot up to approximately 10 feet. Based on the monitoring well boring logs, the

maximum thickness of fill material occurs in the western portion of the site in the vicinity of the former western AST farm. The saprolite unit is predominately comprised of silt and very fine to fine sand sediments, with trace amounts of clay minerals. The characteristic feature of the saprolite is the presence of relict metamorphic structures and textures, which mimic the parent gneissic metamorphic rock. Minerals present in the saprolite deposits include micas and quartz pebbles, which are believed to be the weathered remnants of quartz veins. A review of the boring logs indicates that the apparent thickness of the saprolite material is greater than 20 feet across the site. The contact between the saprolite and underlying bedrock is gradational in nature and characterized by a zone of partially weathered bedrock. (ESC, June 6, 2003). Boring and monitoring well construction logs located in historical reports are included in Appendix D. All historical boring locations are shown on Figure 9.

4.3 Hydrogeology

Groundwater in the Piedmont region occurs within secondary porosity (e.g., joints and fractures) in the igneous and metamorphic bedrock and pore spaces within the layer of regolith that overlies the bedrock. The regolith consists of varying proportions of soil, alluvial deposits and saprolite, which is formed by the chemical weathering of the local bedrock. The regolith and underlying fractured bedrock form a coupled flow system in which the saturated portion of the regolith generally serves as a reservoir providing water to the interconnected fracture network (Miller, 1990). Water in the flow system is generally unconfined in nature, although local artesian conditions may exist.

Water table elevations ranged from 1016.88 ft-msl (BH-13) to 1003.67 ft-msl (EW-A6) across the Site based upon the last full round of water table measurements collected on February 15, 2013. Groundwater flow based upon this data is to the northwest with an area of flow to the north-northeast in the southeastern corner of the Site. A potentiometric surface map based upon this data is presented as Figure 11. A potentiometric surface map from measurements collected on January 24, 2011, Figure 12, represents the available data before the installation of piezometers PZ-1 and PZ-2 in the vicinity of monitoring well MW-1. MW-1 has always exhibited higher groundwater elevations than the surrounding monitoring wells since its installation in 1987. PZ-1 and PZ-2 were installed as part of an attempt to determine if this is a natural occurrence or if the elevations are resulting from other influences. The work is ongoing at the time of this submittal. The EPD HSRA Program has asked that Rathon/Hillshire and GE examine this water elevation anomaly at MW-1 in correspondence dated June 15, 2012. All current and abandoned monitoring wells on the Site are shown on Figure 13. Historical groundwater elevation measurements collected since 2007 are in Table 1. Monitoring well construction data for the existing monitoring wells on site is in Table 2.

Hydraulic gradients on the Site were calculated using the February 15, 2013 groundwater measurement data. The hydraulic gradient on the west side of the Site (EW-D3 to EW-A1) was 0.089 ft/ft. The hydraulic gradient on the northwest side of the Site (EW-C7 to EW-A9) was 0.048 ft/ft.

The hydraulic conductivity of the soil/saprolite water bearing zone, as determined from the analysis of slug test data for wells MW-1 through MW-9, ranges from 0.21 feet per day (ft/day) to 2.8 ft/day (Table 1, ESC 2003, Appendix B). The geometric mean hydraulic conductivity for the site is 0.73 ft/day,

which is typical for unconsolidated sediments consisting of inter-mixed silt and fine sand with minor clay (Freeze and Cherry, 1979). The spatial distribution of the data suggests slightly lower hydraulic conductivity values along the western site boundary (0.21 ft/day to 0.66 ft/day) compared to the rest of the site (0.55 ft/day to 2.82 fl/day), even though there is no apparent variation in the texture or structure of the saprolite material. (ESC, June 6, 2003).

There is one monitoring well on site screened in bedrock, MW-12, which is located in the northeast area of the property; the proposed HSRA sublisted area related to the GE release. Groundwater elevations from MW-12 have been consistently lower relative to immediately adjacent shallow monitoring wells, indicating a downward vertical gradient.

Section 5
Site Constituents of Interest and Risk Reduction Standards

The soil data collected since 1987 and groundwater data collected in 2003, and since 2011, at the Site by various environmental consults has been utilized to determine the Site COI for soil and groundwater. HSRA Type 1 RRS for delineation of COI and HSRA non-residential RRS (higher of the Type 3 and 4 RRS) for evaluation of corrective action options for soil have been derived. HSRA Type 1/3 RRS for groundwater have been derived for delineation of groundwater impacts. RRS for evaluation of groundwater remedial options will be derived following further delineation and assessment of the magnitude of groundwater impacts.

5.1 Constituents of Interest

COI for soil and groundwater are presented in Table 3. These COI include VOCs, SVOCs, pesticides and PCBs. The areas of concern for these COI categories have been selected based on a review of the historical data collected on the Site and their potential degradation products.

5.2 Type 1 Residential Risk Reduction Standards for Delineation

HSRA Type 1 RRS for soil delineation have been derived for the Site COI and are presented in Table 4. The RRS derivations are in Appendix E. The Type 1 RRS have been compared to the historical soil data in Table 5 and exceedances are noted. This information was used to prepare Figure 14, which give an initial indication of areas with soil impacts that require further delineation for the Program. At the time of the preparation of this VRP, additional soil delineation at the Site is being conducted and the results are anticipated to be presented in the first VRP Semiannual Status Report.

HSRA Type 1 RRS for groundwater delineation have been derived for the Site COI and are presented in Table 4. The RRS derivations are in Appendix E. The Type 1 RRS have been compared to the historical groundwater data collected since 2011 in Table 6 and exceedances are noted. This information was used to prepare Figures 15 through 31 of select COI, which give an initial indication of areas with groundwater impacts that require further horizontal delineation for the Program. The initial schedule for implementation of groundwater delineation efforts is noted in Figure 32. Groundwater delineation efforts at the Site will be presented in subsequent VRP Semiannual Status Reports.

5.3 Compliance Risk Reduction Standards for Soil and Groundwater

HSRA non-residential RRS for soil have been derived for the Site COI by developing Type 3 and 4 RRS and selecting the higher of the two RRS for each COI. The non-residential RRS for soil are in Table 7 and the RRS derivations are in Appendix E. The non-residential RRS have been compared to the historical soil data in Table 5 and exceedances are noted. This information was used to prepare Figure 14, which gives an initial indication of areas with soil impacts that require further delineation and compliance activities for the Program. At the time of the preparation of this VRP, additional soil delineation at the Site is

being conducted and the results are anticipated to be presented in the first VRP Semiannual Status Report.

HSRA non-residential RRS for groundwater have been derived for the Site COI by deriving Type 3 and 4 RRS and selecting the higher of the two RRS for each COI. The non-residential RRS for groundwater are in Table 8 and the RRS derivations are in Appendix E. The non-residential RRS have been presented for EPD review and approval; however, have not been compared to the historical groundwater data. The final compliance standards for groundwater will be determined upon completion of groundwater delineation and an evaluation of the magnitude and risks associated with the impacts. The historical groundwater data was compared to Type 1 RRS delineation standards and was used in the preparation of Figures 15 through 31. These figures give an initial indication of areas with groundwater impacts that require further horizontal delineation and compliance activities for the Program. The final compliance standards for groundwater will be determined upon completion of groundwater delineation and an evaluation of the magnitude and risks associated with the impacts.

5.4 Compliance Standard for LNAPL

The target compliance standard for LNAPL identified on the Site is a set of consistent thickness measurements equal to or less than ⅛-inch, or to the extent technically feasible. Consistent thickness measurements are defined as; four consecutive measurements collected quarterly over the course of one year of seasonal groundwater fluctuations.

Program participants Rathon and Hillshire, will be responsible for meeting the LNAPL compliance standard for the historical Oxford Chemical LNAPL release identified on Site in monitoring well MW-3 in the area of the former pump room/ western AST farm.

GE will continue to be responsible for meeting the compliance standards set forth under the approved HSRA CAP under which GE is conducting remediation of the LNAPL mineral oil release that has migrated onto the Site, across the northeastern property line. It is understood that GE's LNAPL compliance standard under HSRA is no less stringent than the LNAPL compliance standard set forth herein under the Program.

Section 6
Extent of Soil, Groundwater and LNAPL Impacts

The soil data collected at the Site by various environmental consults since 1987, and groundwater data collected in 2003 and since 2001, has been used by Woodard & Curran to determine the COI and initial distribution of impacts to soil and groundwater. All known historical soil data where laboratory data reports could be found was compiled to evaluate the current soil conditions on Site. Groundwater data collected since 2011 has been used to evaluate the current distribution of COI in groundwater on Site. Older groundwater data will also be used to evaluate groundwater and to guide further groundwater delineation. The known soil and groundwater conditions on Site are discussed below.

6.1 Extent of COI in Soil

The known historical soil sample locations with verifiable analytical data, i.e. laboratory reports could be found, have been transferred from various historical maps onto one map presented as Figure 9. The date and the company collecting the samples are noted. As stated in Section 3, soil remediation by soil removal was conducted in some areas in 2008 on the Site. Figure 7 shows the areas of excavation and the stated depths of each excavation.

Table 5 is a compilation of all verifiable historical soil data collected on Site. Samples that were remediated during the 2008 soil removal are noted. Also, samples that are believed to have been collected below the water table are noted, and were determined by examining the surrounding historical water table elevations in the monitoring and extraction wells in the immediate vicinity of the borings. The data is also compared to the non-residential RRS to determine areas of soil impacts that are currently known to require corrective action through the Program. They are also compared to the Type 1 RRS that will be used to delineate the extent of COI in soil at the Site under the Program. Figure 14 presents the known and estimated boundary of all COI greater than non-residential RRS, and the known and estimated delineation boundary of all COI relative to Type 1 RRS. Additional soil delineation is underway at the time of this submittal to complete the definition of these boundaries. This additional data will be presented in tables and more detailed maps in subsequent Semiannual Status Reports.

6.2 Extent of COI in Groundwater

Historical groundwater data collected since January 2011 is presented in Table 6 and is compared to Type 1 RRS to determine where horizontal delineation has been achieved and where additional delineation is required. The currently known estimated extent of select COI in groundwater relative to HSRA Type 1 RRS based upon the last full round of groundwater data collected in January 2011 is shown on Figures 15 through 31. On site historical releases that have impacted groundwater appear to have originated in the western AST farm, pump room, eastern UST/AST/drum storage area, and the drains and historical operations in Building B/liquid manufacturing area. Some COI will require additional downgradient and offsite delineation to the west-northwest. Offsite releases at the adjacent GE facility

have resulted in a distinct groundwater contaminant plume migrating west onto the Site across the eastern property line.

6.2.1 VOCs

The majority of VOC COI appear to originate from one of the six anaerobic degradation chains shown in Figure 33. Three of the degradation pathways have been examined to date. Some of the VOCs may have originated from original raw materials used in the former Oxford Chemical facility. The tetrachloroethene (PCE) to vinyl chloride (VC) degradation chain of groundwater maps are presented as Figures 15 through 19. It has been concluded that the intermediate constituents trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE) and trans-1,2-dichloroethene (trans-1,2-DCE) originate from the degradation process, the primary sources are the western AST farm, eastern UST/AST/drum storage area, the drains and historical operations in Building B/liquid manufacturing area and the GE mineral oil release. Note that TCE could also be a stand-alone source in some areas. The VOC groundwater plumes resulting from on Site releases from the former Oxford Chemicals facility are distinctly separated from the GE VOC plumes with the exception of cis-1,2-DCE which appears to comingle in one small area in the former HSRA proposed sublisted area at the time the sampling was conducted in 2011.

The 1,1,1-trichloroethane (1,1,1-TCA) to vinyl chloride (VC)/chloroethane degradation chain of groundwater maps are presented as Figures 20 through 23. It has been concluded that the intermediate constituents of 1,1-dichloroethane (1,1-DCA) and 1,1-dichloroethene (1,1-DCE) only originate from the degradation process, the primary sources are the eastern UST/AST/drum storage area, the drains and historical operations in Building B/liquid manufacturing area and the GE mineral oil release. Again, the VOC groundwater plumes resulting from on Site releases from the former Oxford Chemicals facility are distinctly separated from the GE VOC plumes with the exception of 1,1-DCA which appears to comingle in one small area in the former HSRA proposed sublisted area at the time the sampling was conducted in 2011.

The 1,2,4-trichlorobenzene (1,2,4-TCB) to chlorobenzene degradation chain of groundwater maps are presented as Figures 24 through 28. It has been concluded that the intermediate constituents of 1,2-dichlorobenzene (1,2-DCB) and 1,4-dichlorobenzene (1,4-DCB) only originate from the degradation process, the primary sources are the western AST farm, possibly the pump room, the eastern UST/AST/drum storage area, the drains and historical operations in Building B/liquid manufacturing area and the GE mineral oil release. Again, the VOC groundwater plumes resulting from on Site releases from the former Oxford Chemicals facility are distinctly separated from the GE VOC plumes with the exception of 1,1-DCA which appears to comingle in one small area in the former HSRA proposed sublisted area at the time the sampling was conducted in 2011.

Toluene has also been identified in groundwater on Site. The primary sources are the western AST farm, the pump room, the eastern UST/AST/drum storage area, the drum storage area in the south corner of the property or an upgradient, offsite source; and the GE mineral oil release.

Horizontal delineation to Type I RRS of many VOCs has been achieved to the interior of the Site, though refinement of the plume boundaries may be conducted in some areas. Downgradient, offsite delineation of VOCs to the west-northwest will be necessary to complete the VRP. Additional horizontal delineation efforts to comply with the Program will be presented in subsequent Semiannual Status Reports.

Vertical delineation has been attempted in the former proposed HSRA sublisted area with the installation of bedrock well MW-12. VOCs were detected in MW-12 during the last sampling event conducted in August 2012.

VOCs detected in groundwater are presented in Tables 3 and 6.

6.2.2 SVOCs

SVOCs are present in a more limited area in groundwater on the Site as shown on Figure 29. They have been detected in the western AST farm area, pump room area and possibly associated with the drum storage area in the south corner of the property. SVOCs detected in groundwater are presented in Tables 3 and 6. On site delineation will be required in the drum storage area in the south corner of the property, and downgradient, offsite to the west-northwest. Vertical delineation has not been conducted for SOVCs.

6.2.3 Pesticides

Pesticides are present in a more limited area in groundwater on the Site as shown on Figure 30. They have been detected in the western AST farm area, pump room area, possibly associated with the drum storage area in the south corner of the property and the GE release. Pesticides detected in groundwater are presented in Tables 3 and 6. On site delineation will be required in the drum storage area in the south corner of the property, and downgradient, offsite to the west-northwest. Vertical delineation has not been conducted for pesticides.

6.2.4 PCBs

PCBs have only been detected on the Site associated with the GE mineral oil release in the former proposed HSRA sublisted area as shown on Figure 31. PCBs were most recently detected in monitoring well BH-7 (Aroclors 1016, 1232 and 1260) in the 2011 sampling events at concentrations ranging from 7.8 ug/L to 9.4 ug/L total PCBs. PCB Aroclors that have been detected in groundwater since 1988 have included 1016, 1232, 1242 and 1269. PCBs have not been detected in bedrock monitoring well MW-12. Horizontal and vertical delineation of PCBs have been achieved on Site. A review of the GE assessment efforts will be conducted to see if GE, the responsible party for the PCB release, has completed horizontal and vertical delineation of PCB in groundwater off the Site. Horizontal delineation has been completed on the Site as shown on Figure 33.

6.3 Extent of LNAPL

LNAPL has been identified on the Site associated with two releases; the GE mineral oil release that migrated southwest across the northeastern property line, and product identified in MW-3 associated with the former pump room area.

Figure 6a, prepared by GES (GES, 2010) shows the extent of GE LNAPL from February 1996 to December 2009. Figure 6b, prepared by URS (URS, 2012) shows the extent of GE LNAPL from December 2011 to September 2012. LNAPL thicknesses on the GE property based upon these two figures have ranged from more than 16 feet in August 2000 to more than 7 feet in September 2012. LNAPL thicknesses from the GE release on the Rathon property upon these two figures have ranged from approximately 3 feet (BH-10) in February 1996 to 0.37 feet (BH-9) in September 2012. During the last round of measurements collected by Woodard & Curran on February 15, 2013, there was no measurable LNAPL on the Site, though an absorbent sock had been placed by GE in BH-9. GE has been conducting active LNAPL recovery since 1994. Most recently product recovery efforts have been conducted by bailing monitoring wells of LNAPL on a bi-weekly basis.

The GE mineral oil contains VOCs, SVOCs and PCBs based on free-product samples analyzed by GE's consultants and samples collected and analyzed by consultants assessing the Rathon property. GES in 1996, under contract to GE, collected five samples of mineral oil on the GE property and the Rathon property and analyzed the samples for PCBs, VOCs, SVOCs, flash point and boiling point. The results were included in the October 30, 1996 Remedial Action Plan prepared by GES. PCBs (Aroclor-1260) were detected in all five samples at concentrations ranging from 1.5 milligrams per kilogram (mg/kg) (GE NAPL #4) to 63 mg/kg (Diversey NAPL #1). GES noted that, "The distribution data of PCB compounds in NAPL samples suggest that the two samples displaying the greatest concentrations of PCBs in NAPL are present in the central area of the GE shop (GE NAPL #3 [RW-6 and RW-9]; 12 mg/kg) and the Diversey [Oxford] property (Diversey NAPL #1 [BH-11]; 63 mg/kg)" (GES, 1996). Mineral oil collected on the HSRA proposed sublisted area of the Site has contained Aroclor 1260 concentrations from 63 mg/kg (BH-11, August 1996) to 1,100 mg/kg (BH-18, July 2001). Aroclor 1242 (up to 66 mg/kg) was also detected in one or more of the LNAPL samples included in the GE OM&M reports.

GES stated that total VOCs were detected in all five composite NAPL samples at concentrations ranging from 346 mg/L (Diversey NAPL #1) to 5,130.8 mg/L (GE NAPL #3). SVOCs were detected in all five mineral oil samples collected from the GE facility and the Site ranging from 230 mg/L (GE NAPL #1) to 1,062 mg/L (Diversey NAPL #1). (GES, 1996). The COI identified in the GE LNAPL are presented in the 1996 GES report, sections of which are in Appendix B. The various COI identified in the GE LNAPL are presented in Table 9 of the 1996 GES Report. GE regularly samples and analyzes the LNAPL collected by the recovery system for waste characterization purposes. Appendix B contains data for four LNAPL samples collected from the recovery system during 2004.

A separate area of LNAPL was originally identified in 1987-88 in monitoring well MW-3 associated with the former Oxford Chemicals facility pump room area. The 1988 ESC report noted 1.5 feet of LNAPL

present in MW-3. Following the discovery of this LNAPL, ESC in 1991 performed fingerprinting on the LNAPL to determine the source and nature of the product, and analyzed a groundwater sample collected immediately below the floating product. LNAPL from MW-3 was compared to various raw materials used in the facility. It was determined that the LNAPL was a mixture of PAA, HSB, PAMYL (amyl acetate), ISOBUT (isobutyl acetate) and at least one other hydrocarbon distillate. These were all raw materials that had been used at various times during the facility's operational history (ESC, October 10, 1991). A skimmer pump was used intermittently for a period of time in the early 1990's to recovery product. In 2003 ESC noted in a report on the environmental conditions on the Site that the LNAPL levels in MW-3 had decreased from 1991 thicknesses of 1.5 to 2.5 feet, to 0.01 feet in March 2003. Measureable product was observed in EW-B2 (0.02 feet) adjacent to the pump room and EW-A1 (0.01 feet) in the western AST farm area. (ESC, June 6, 2003). In 2008, soil excavation was conducted by WSP to the water table in the pump room area in attempt to removed LNAPL and impacted soil in this area; however, MW-3 was left intact to serve as a monitoring point (WSP, September 26, 2008). On February 15, 2013, LNAPL was detected at a thickness of 0.03 feet in MW-3 by Woodard & Curran (see Table 1). LNAPL was not detected in any other on-site monitoring wells during this sampling event.

The groundwater collected below the product layer in MW-3 was analyzed for SVOCs plus 25 additional peaks (SVOCs+25, Method 8270), VOCs plus 15 additional peaks (VOCs+l5, Method 8240), TPH, and fingerprint analysis using gas chromatograph. The only VOC detected was toluene at 7,800 mg/l. Several tentatively identified volatile compounds (TICs) were also detected in the sample including acetone, total xylenes, and 4-methy1-2-pentanone. Seven SVOCs were detected at concentrations between 1.5 mg/L and 27 mg/l. Most of the TICs detected during the SVOC analysis consist of various hydrocarbons and amyl acetate (0.008 mg/1 to 0.290 mg/l), and higher concentrations of 4-methylphenol and 2- methylnaphthalene (9.1 and 53 mg/l, estimated). The ESC 1991 free-product investigation report is located in Appendix B.

Section 7
Exposure Pathways and Potential Receptors – Conceptual Site Model

An evaluation of potential exposure pathways and receptors was conducted for the Site based upon the data collected to date. A conceptual site model of the exposure pathways for the Site, discussed below, is shown as Figure 34. The exposure pathways evaluated include:

- Potential exposure to vapor-phase COI from impacted soil and groundwater;
- Potential exposure to COI in soil;
- Potential exposure to COI in groundwater;
- Potential exposure to COI in surface water; and
- Potential exposure to COI in sediment.

It was concluded that the following exposure pathways are currently incomplete on Site:

- Exposure to COI in surface water because there are no surface water bodies in the know areas of impacts; however, downgradient delineation of groundwater during the implementation of the VRP will further assess this pathway; and
- Exposure to COI in sediment because there are no surface water bodies in the know areas of impacts; however, downgradient delineation of groundwater during the implementation of the VRP will further assess this pathway.

It has been conservatively determined that the following exposure pathways have the potential to become complete in specific circumstances in the future and will require additional evaluation during implementation of the VRP:

- Exposure to vapor-phase COI from impacted soil or groundwater where enclosed structures are built, or may be built in the future, within the boundaries of the plumes where VOC COI are present;
- Exposure to COI in soil where COI are greater than Type 1 RRS on the Site; soil exceedances are confined to the Site;
- Exposure to COI in groundwater, if groundwater is used for irrigation, potable use, or during construction dewatering within the boundaries of the plumes where COI are greater than Type 1 RRS on any impacted properties; and
- Exposure to COI in surface water and sediment if it is determined that a groundwater plume intersects a surface water body during the implementation of the VRP.

The possibility of potential exposure to COI in soil in exceedance of non-residential RRS will be addressed through active remediation methods to be determined during the implementation of the VRP.

The possibility of potential exposure to COI in groundwater greater than residential RRS on all impacted properties will likely be addressed through the use of a combination of limited active remediation, engineering and/or institutional controls. It is currently assumed that during the delineation and evaluation of the state of the groundwater plumes, a downgradient point of exposure for the groundwater plumes will be established, and a monitoring plan will be developed as part of the VRP implementation. A water supply and surface water survey will also be conducted to determine if there is the potential for exposure to groundwater impacts from the Site.

The possibility of potential exposure to vapor-phase COI from impacted soil and groundwater where enclosed structures are currently built, or could be built in the future within the boundaries of the VOC plumes will be addressed through the use of institutional and/or engineering controls as determined necessary during the implementation of the VRP.

Other Potential Receptors - Rare or Endangered Species

Information on rare or endangered species for the Site area was obtained from the Georgia Department of Natural Resources Wildlife Resources Division website, Georgia Rare Species and Natural Community Information (http://www.georgiawildlife.com/node/1370). Information was obtained by literature search only from this website. The Site is located in the Chamblee, GA, SW Quarter Quad of the Chamblee USGS Quadrangle. One plant species was indentified in this quarter quadrangle which is listed as a threatened species in the State of Georgia; the Bay Star-vine (Schisandra glabra). The habitat for this species is as follows: found twining over understory trees and shrubs in rich, forested bottomlands and adjacent lower slopes; sometimes older vines occur on trunks of overstory trees, or sprawl along the ground forming patches rooted in the litter, especially near mountain laurel (Kalmia latifolia) thickets. It is possible that this species could inhabit the underbrush along the western fence line of the Site; however, a site reconnaissance will be conducted.

One animal species was identified in this quarter quadrangle which is listed as a threatened species in the State of Georgia; the Elliptio arctata Conrad, common name, Delicate Spike, is a mussel usually found in gravel or sand shoals in medium to large rivers. Since there are no surface water bodies on the Site, is is assumed that this species is not present on or affected by Site COI.

Information obtained from the Georgia Department of Natural Resources Wildlife Resources Division website is in Appendix F.

Section 8
Proposed Corrective Action

Soil and groundwater are impacted with Site COI and their degradation products. As a result, the various exposure pathways discussed in Section 7 will be evaluated during the implementation of the VRP, and will be addressed through the use of a combination of limited active remediation, engineering and/or institutional controls as required. The necessary corrective actions will be presented in subsequent Semiannual Status Reports as each media is delineated and evaluated relative to current and future exposure scenarios. If necessary, institutional controls will be implemented through the use of environmental covenants executed in conformance with the Georgia Uniform Environmental Covenants Act (OCGA § 44-16-1).

Section 9
Items for Completing VRP Compliance Status Report

Below is a list of tasks or actions that remain to be completed or implemented under the VRP for this Site for the preparation of a VRP Compliance Status Report. Each of these items will be completed or implemented per the requirements of the Act. A preliminary 2013 VRP Schedule for implementing initial tasks through the submittal of the first VRP Semiannual Status Report is presented as Figure 32.

Delineation of COI in Soil

Impacts to soil above Type 1 and non-residential RRS appear to be contained on the Site, as shown on Figure 14. However, additional refinement of these RRS/delineation boundaries for the COI is currently underway at the time of the submittal of this VRP. It is anticipated that the results of the soil delineation will be presented in the first VRP Semiannual Status Report.

Horizontal Delineation of COI in Groundwater

Many of the COI plumes in groundwater have been horizontally delineated internal to the Site but some COI plumes require additional downgradient, and possible offsite delineation. Additional horizontal delineation will be completed on Site as necessary, and access to offsite properties to complete downgradient delineation of COI will be initiated in 2013. It is anticipated that additional horizontal groundwater delineation will begin in 2013 and will be completed in accordance with the requirements of the Act.

Vertical Delineation of COI in Groundwater

Upon completion of the horizontal delineation of COI, locations will be selected to attempt vertical delineation in groundwater. Type III double-cased monitoring wells will be installed to delineate the vertical extent of COI in groundwater at the Site. It is anticipated that the proposed locations will be presented in the VRP Semiannual Status Report which presents the results of the horizontal delineation of groundwater, and that vertical delineation will be completed in accordance with the requirements of the Act.

Delineation of LNAPL

LNAPL recently rediscovered present in MW-3 is delineated by the existing network of monitoring wells on site except to the east, beneath the former facility building slab. Additional delineation of LNAPL to the east will be completed during the horizontal delineation of groundwater impacts. It is anticipated that the LNAPL delineation data will be presented in the VRP Semiannual Status Report which presents the results of the horizontal delineation of groundwater.

Corrective Action

As indicated in Section 8, the various exposure pathways discussed in Section 7 will be evaluated during the implementation of the VRP, and addressed, as necessary, through the use of a combination of limited active remediation, engineering and/or institutional controls. The necessary corrective actions will be presented in subsequent VRP Semiannual Status Reports as each media is delineated and evaluated relative to current and future exposure scenarios. If required, institutional controls will be implemented through the use of environmental covenants executed in conformance with the Georgia Uniform Environmental Covenants Act (OCGA § 44-16-1).

Voluntary Remediation Plan Cost Estimate

A Voluntary Remediation Plan Cost Estimate and date for submitting a financial assurance instrument in the amount of the estimate will be submitted in the first VRP Semiannual Status Report for the Site.

VRP Compliance Status Report

Upon completion and implementation of the above tasks/items, as appropriate, a VRP Compliance Status Report will be submitted to the EPD for approval, which is anticipated to result in the removal of the Site from the HSI. The VRP Compliance Status Report will be completed and submitted in accordance with the requirements of the Act.

Section 10
Implementation Schedule

The 2013 schedule of tasks for implementation of the Former Oxford Chemical Property VRP is presented on Figure 32. A VRP Semiannual Status Report will be submitted to the EPD every 6 months during this implementation of the VRP, until the VRP Compliance Status Report is submitted in accordance with the Act.

Tables

Table 1
Historical Groundwater Elevation Measurements
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Monitoring Well Location	Georgia State Plane Coordinate System Northing	Georgia State Plane Coordinate System Easting	Top-of-Casing Elevation (Surveyed 2010) (ft.	3/26/2007* Depth to Product (ft)	3/26/2007* Depth to Water (ft)	3/26/2007* Product Thickness (ft)	3/26/2007* Groundwater Elevation (ft AMSL)	6/25/2007* Depth to Product (ft)	6/25/2007* Depth to Water (ft)	6/25/2007* Product Thickness (ft)	6/25/2007* Groundwater Elevation (ft AMSL)	9/24/2007* Depth to Product (ft)	9/24/2007* Depth to Water (ft)	9/24/2007* Product Thickness (ft)	9/24/2007* Groundwater Elevation (ft AMSL)	12/17/2007* Depth to Product (ft)	12/17/2007* Depth to Water (ft)	12/17/2007* Product Thickness (ft)	12/17/2007* Groundwater Elevation (ft AMSL)	3/24/2008* Depth to Product (ft)	3/24/2008* Depth to Water (ft)	3/24/2008* Product Thickness (ft)	3/24/2008* Groundwater Elevation (ft AMSL)
BH-6	1413525.036	2251836.472	1021.70	NP	10.82	--	1011.03	12.11	12.25	0.14	1009.6	NP	12.31	--	1009.54	NP	12.87	--	1008.98	NP	11.89	--	1009.96
BH-7	1413570.801	2251798.856	1020.85	NP	11.95	--	1009.01	NP	13.51	--	1007.45	NP	13.68	--	1007.28	NP	DRY	--	DRY	NP	13.05	--	1007.91
BH-8	1413576.301	2251777.000	1021.10	NP	14.95	--	1007.52	NP	DRY	--	DRY	NP	DRY	--	DRY	NP	DRY	--	DRY	NP	15.05	--	1007.42
BH-9	1413543.780	2251826.831	1021.92	NP	12.01	--	1009.89	13.08	13.62	0.54	1008.28	13.2	13.55	0.35	1008.35	14	14.42	0.42	1007.48	12.64	13.03	0.39	1008.87
BH-10	1413504.506	2251848.726	1021.80	10.31	10.7	0.39	1011.41	11.62	12.58	0.96	1009.53	11.62	12.36	0.74	1009.75	12.13	12.83	0.7	1009.28	11.17	11.5	0.33	1010.61
BH-11	1413523.687	2251791.120	1021.38	12.84	12.98	0.14	1008.40	NP	14.61	--	1006.77	NP	14.56	--	1006.82	NP	13.33	--	1008.05	NP	12.51	--	1008.87
BH-12	1413562.344	2251729.458	1022.27	NP	13.66	--	1008.59	NP	DRY	--	DRY	NP	NM	--	NM	NP	NM	--	NM	NP	14.43	--	1007.82
BH-13	1413396.361	2251781.954	1021.98	NP	9.9	--	1012.07	NP	11.09	--	1010.88	NP	10	--	1011.97	NP	11.68	--	1010.29	NP	9.85	--	1012.12
BH-14	1413504.738	2251802.174	1021.63	NP	12.6	--	1009.02	NP	14.08	--	1007.54	NP	14.1	--	1007.52	NP	13.02	--	1008.60	NP	11.82	--	1009.80
BH-15	1413496.052	2251761.735	1021.48	NP	11.82	--	1009.79	NP	13.5	--	1008.11	NP	NM	--	NM	NP	14.53	--	1007.08	NP	12.79	--	1008.82
BH-16	1413529.061	2251757.230	1020.89	NP	11.75	--	1009.22	NP	13.18	--	1007.79	NP	13.35	--	1007.62	NP	12.15	--	1008.82	NP	12.82	--	1008.15
BH-17	1413549.517	2251762.741	1021.06	NP	12.38	--	1008.87	NP	13.99	--	1007.26	NP	14.3	--	1006.95	NP	15.22	--	1006.03	NP	13.4	--	1007.85
BH-18	1413555.926	2251784.561	1020.92	NP	12.48	--	1008.41	NP	14.02	--	1006.87	NP	14.33	--	1006.56	NP	14.6	--	1006.29	NP	12.8	--	1008.09
BH-19	1413492.567	2251747.268	1021.27	NP	11.6	--	1009.66	NP	13.17	--	1008.09	NP	13.29	--	1007.97	NP	13.43	--	1007.83	NP	12.63	--	1008.63
BH-20	1413473.587	2251758.380	1021.65	NP	12.86	--	1008.82	NP	12.91	--	1008.77	NP	12.83	--	1008.85	NP	13.89	--	1007.79	NP	12.25	--	1009.43
BH-21	1413447.065	2251773.077	1021.71	NP	10.72	--	1011.23	NP	12.32	--	1009.63	NP	12.02	--	1009.93	NP	12.05	--	1009.90	NP	11.55	--	1010.40
BH-22	1413444.263	2251732.875	1025.53	NP	12.39	--	1010.25	NP	14.02	--	1008.62	NP	13.85	--	1008.79	NP	14.62	--	1008.02	NP	12.92	--	1009.72
BH-23	1413485.551	2251728.272	1021.17	NP	12.66	--	1008.50	NP	14.35	--	1006.81	NP	14.39	--	1006.77	NP	14.47	--	1006.69	NP	12.67	--	1008.49
BH-24	1413515.658	2251711.520	1021.06	NP	12.48	--	1008.83	NP	14.19	--	1007.12	NP	14.46	--	1006.85	NP	15.4	--	1005.91	NP	13.49	--	1007.82
MW-A	1413572.745	2251795.937	1023.18	NP	14.27	--	1008.88	NP	15.61	--	1007.54	NP	16.23	--	1006.92	NP	17.11	--	1006.04	NP	15.3	--	1007.85
MW-1	1413625.812	2251708.746	1022.88	NP	6.86	--	1016.04	NP	7.78	--	1015.12	NP	6.65	--	1016.25	NP	6.27	--	1016.63	NP	6.62	--	1016.28
MW-2	1413364.942	2252148.692	1031.72																				
MW-3	1413231.916	2251572.779	1027.22																				
MW-5	1413103.760	2251476.251	1028.96																				
MW-6	1412979.193	2251573.452	1025.71																				
MW-7	1413419.071	2251429.075	1016.61																				
MW-9	1413562.604	2251521.439	1017.84																				
MW-11	1413501.383	2251489.959	1018.15																				
MW-12	1413491.532	2251754.256	1021.47	NP	NM	--	NM	NP	14.65	--	1006.81	NP	15.18	--	1006.28	NP	16.04	--	1005.42	NP	14.42	--	1007.04
RW-19	1413494.778	2251761.095	1021.63																				
EW-A1	1413156.773	2251480.985	1026.81																				
EW-A2	1413208.943	2251475.164	1023.41																				
EW-A3	1413262.518	2251465.917	1022.95																				
EW-A4	1413307.061	2251470.442	1022.89																				
EW-A5	1413354.431	2251471.841	1022.86																				
EW-A6	1413427.569	2251466.291	1022.12																				
EW-A7	1413469.253	2251489.281	1020.96																				
EW-A8	1413495.732	2251531.714	1021.70																				
EW-A9	1413523.394	2251579.948	1021.91																				
EW-A10	1413550.394	2251622.078	1021.67																				
EW-B1	1413184.167	2251528.263	1024.26																				
EW-B3¨	1413264.360	2251565.546	1024.79																				
EW-B4¨	1413236.323	2251520.286	1023.75																				
EW-B5	1413285.278	2251517.47	1024.2																				
EW-B6	1413336.823	2251518.769	1024.23																				
EW-C6	1413414.286	2251748.864	1024.26																				
EW-C7	1413381.058	2251766.848	1022.21																				
EW-C8	1413450.667	2251725.899	1021.63																				
EW-C9	1413508.32	2251704.871	1024.20																				
EW-D3	?	?	1024.23																				
EW-D5	1413053.598	2251491.783	1026.77																				
EW-D6	1413104.302	2251485.288	1026.4																				
EW-D7	1413037.654	2251557.584	1023.72																				
EW-D8	1412989.076	2251565.812	1022.91																				
EW-D9	1412989.465	2251517.225	1023.65																				

NOTES:

* Throughout 2007 and without prior notice, the tops of some GE well casings were cut off by an unknown amount. GW Elevation for the dates noted is referenced from 5/30/08 Top-of-Casing Elevation Survey.

** Measurements on September 21, 2009 were collected during flooding event. Locations BH-6 and BH-18 not measured due to standing water.

¨ Surveyed February 2013

ft. = feet; AMSL = Above Mean Sea Level; bgs = below ground surface; NA = information not available; NM = not measured; NP = product not measured; GW = Groundwater

Blank — Blank cell indicates a water level measurement was not taken.

Table 1
Historical Groundwater Elevation Measurements
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Monitoring Well Location	Georgia State Plane Coordinate System Northing	Georgia State Plane Coordinate System Easting	Top-of-Casing Elevation (Surveyed 2010) (ft.	6/23/2008* Depth to Product (ft)	6/23/2008* Depth to Water (ft)	6/23/2008* Product Thickness (ft)	6/23/2008* Groundwater Elevation (ft AMSL)	9/22/08* Depth to Product (ft)	9/22/08* Depth to Water (ft)	9/22/08* Product Thickness (ft)	9/22/08* Groundwater Elevation (ft AMSL)	12/16/08* Depth to Product (ft)	12/16/08* Depth to Water (ft)	12/16/08* Product Thickness (ft)	12/16/08* Groundwater Elevation (ft AMSL)	3/17/09* Depth to Product (ft)	3/17/09* Depth to Water (ft)	3/17/09* Product Thickness (ft)	3/17/09* Groundwater Elevation (ft AMSL)	9/21/09* (**) Depth to Product (ft)	9/21/09* (**) Depth to Water (ft)	9/21/09* (**) Product Thickness (ft)	9/21/09* (**) Groundwater Elevation (ft AMSL)
BH-6	1413525.036	2251836.472	1021.70	NP	10.83	--	1011.02	NP	DRY	--	DRY	NP	DRY	--	DRY	NP	8.98	--	1012.87	NP	NM	--	NM
BH-7	1413570.801	2251798.856	1020.85	NP	12.75	--	1008.21	NP	DRY	--	DRY	NP	DRY	--	DRY	NP	12.89	--	1008.07	NP	10.11	--	1010.85
BH-8	1413576.301	2251777.000	1021.10	NP	14.92	--	1007.55	NP	14.3	--	1008.17	NP	DRY	--	DRY	NP	15.35	--	1007.12	NP	12.81	--	1009.66
BH-9	1413543.780	2251826.831	1021.92	12.05	12.63	0.58	1009.27	13.71	14.43	0.72	1007.47	13.36	14.4	1.04	1007.50	11.81	14	2.19	1007.90	7.91	7.92	0.01	1013.98
BH-10	1413504.506	2251848.726	1021.80	10.28	10.35	0.07	1011.76	11.99	12.99	1	1009.12	10.91	11.34	0.43	1010.77	7.35	7.39	0.04	1014.72	2.31	2.35	0.04	1019.76
BH-11	1413523.687	2251791.120	1021.38	NP	11.53	--	1009.85	NP	DRY	--	DRY	NP	DRY	--	DRY	NP	5.86	--	1015.52	NP	2.23	--	1019.15
BH-12	1413562.344	2251729.458	1022.27	NP	10.41	--	1011.84	NP	15.15	--	1007.10	NP	15.11	--	1007.14	NP	13.25	--	1009.00	NP	10.14	--	1012.11
BH-13	1413396.361	2251781.954	1021.98	NP	8.96	--	1013.01	NP	8.96	--	1013.01	NP	8.96	--	1013.01	NP	8.96	--	1013.01	NP	8.96	--	1013.01
BH-14	1413504.738	2251802.174	1021.63	NP	11.27	--	1010.35	NP	13.02	--	1008.60	NP	12.52	--	1009.10	NP	10.25	--	1011.37	NP	5.65	--	1015.97
BH-15	1413496.052	2251761.735	1021.48	NP	12.45	--	1009.16	NP	14.52	--	1007.09	NP	14.32	--	1007.29	NP	12.1	--	1009.51	NP	9.25	--	1012.36
BH-16	1413529.061	2251757.230	1020.89	NP	10.88	--	1010.09	NP	DRY	--	DRY	NP	DRY	--	DRY	NP	8.8	--	1012.17	NP	0	--	--
BH-17	1413549.517	2251762.741	1021.06	NP	13.2	--	1008.05	NP	15.32	--	1005.93	NP	15.29	--	1005.96	NP	13.7	--	1007.55	NP	9.81	--	1011.44
BH-18	1413555.926	2251784.561	1020.92	NP	12.53	--	1008.36	NP	14.64	--	1006.25	NP	14.56	--	1006.33	NP	12.78	--	1008.11	NP	NM	--	NM
BH-19	1413492.567	2251747.268	1021.27	NP	12.38	--	1008.88	NP	14.34	--	1006.92	NP	14.15	--	1007.11	NP	12.66	--	1008.60	NP	9.72	--	1011.54
BH-20	1413473.587	2251758.380	1021.65	NP	11.89	--	1009.79	NP	15.7	--	1005.98	NP	13.4	--	1008.28	NP	12.72	--	1008.96	NP	8.26	--	1013.42
BH-21	1413447.065	2251773.077	1021.71	NP	10.98	--	1010.97	NP	12.59	--	1009.36	NP	12.05	--	1009.90	NP	9.42	--	1012.53	NP	0	--	1021.95
BH-22	1413444.263	2251732.875	1025.53	NP	12.55	--	1010.09	NP	12.55	--	1010.09	NP	12.55	--	1010.09	NP	12.55	--	1010.09	NP	12.55	--	--
BH-23	1413485.551	2251728.272	1021.17	NP	12.69	--	1008.47	NP	12.69	--	1008.47	NP	12.69	--	1008.47	NP	12.69	--	1008.47	NP	12.69	--	1008.47
BH-24	1413515.658	2251711.520	1021.06	NP	13.4	--	1007.91	NP	15.56	--	1005.75	NP	15.53	--	1005.78	NP	14.19	--	1007.12	NP	11.8	--	1009.51
MW-A	1413572.745	2251795.937	1023.18	NP	15.08	--	1008.07	NP	17.2	--	1005.95	NP	17.11	--	1006.04	NP	15.32	--	1007.83	NP	12.68	--	1010.47
MW-1	1413625.812	2251708.746	1022.88	NP	7.06	--	1015.84	NP	10.92	--	1011.98	NP	6.6	--	1016.30	NP	4.55	--	1018.35	NP	5.41	--	1017.49
MW-2	1413364.942	2252148.692	1031.72																				
MW-3	1413231.916	2251572.779	1027.22																				
MW-5	1413103.760	2251476.251	1028.96																				
MW-6	1412979.193	2251573.452	1025.71																				
MW-7	1413419.071	2251429.075	1016.61																				
MW-9	1413562.604	2251521.439	1017.84																				
MW-11	1413501.383	2251489.959	1018.15																				
MW-12	1413491.532	2251754.256	1021.47	NP	14	--	1007.46	NP	16.03	--	1005.43	NP	16.25	--	1005.21	NP	14.98	--	1006.48	NP	13.19	--	1008.27
RW-19	1413494.778	2251761.095	1021.63																				
EW-A1	1413156.773	2251480.985	1026.81																				
EW-A2	1413208.943	2251475.164	1023.41																				
EW-A3	1413262.518	2251465.917	1022.95																				
EW-A4	1413307.061	2251470.442	1022.89																				
EW-A5	1413354.431	2251471.841	1022.86																				
EW-A6	1413427.569	2251466.291	1022.12																				
EW-A7	1413469.253	2251489.281	1020.96																				
EW-A8	1413495.732	2251531.714	1021.70																				
EW-A9	1413523.394	2251579.948	1021.91																				
EW-A10	1413550.394	2251622.078	1021.67																				
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EW-B3¨	1413264.360	2251565.546	1024.79																				
EW-B4	1413236.323	2251520.286	1023.75																				
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EW-C8	1413450.667	2251725.899	1021.63																				
EW-C9	1413508.32	2251704.871	1024.20																				
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EW-D8	1412989.076	2251565.812	1022.91																				
EW-D9	1412989.465	2251517.225	1023.65																				

NOTES:

* Throughout 2007 and without prior notice, the tops of some GE well casings were cut off by an unknown amount. GW Elevation for the dates noted is referenced from 5/30/08 Top-of-Casing Elevation Survey.

** Measurements on September 21, 2009 were collected during flooding event. Locations BH-6 and BH-18 not measured due to standing water.

¨ Surveyed February 2013

ft. = feet; AMSL = Above Mean Sea Level; bgs = below ground surface; NA = information not available; NM = not measured; NP = product not measured; GW = Groundwater

Blank — Blank cell indicates a water level measurement was not taken.

Table 1
Historical Groundwater Elevation Measurements
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Monitoring Well Location	Georgia State Plane Coordinate System Northing	Georgia State Plane Coordinate System Easting	Top-of-Casing Elevation (Surveyed 2010) (ft.	3/23/10* Depth to Product (ft)	3/23/10* Depth to Water (ft)	3/23/10* Product Thickness (ft)	3/23/10* Groundwater Elevation (ft AMSL)	1/24/2011 Depth to Product (ft)	1/24/2011 Depth to Water (ft)	1/24/2011 Product Thickness (ft)	1/24/2011 Groundwater Elevation (ft AMSL)	6/10/2011 Depth to Product (ft)	6/10/2011 Depth to Water (ft)	6/10/2011 Product Thickness (ft)	6/10/2011 Groundwater Elevation (ft AMSL)	2/15/12 Depth to Product (ft)	2/15/12 Depth to Water (ft)	2/15/12 Product Thickness (ft)	2/15/12 Groundwater Elevation (ft AMSL)	8/10/12 Depth to Product (ft)	8/10/12 Depth to Water (ft)	8/10/12 Product Thickness (ft)	8/10/12 Groundwa Elevation (ft AMSL)
BH-6	1413525.036	2251836.472	1021.70	6.64	6.65	0.01	1015.2	0	10.55	0	1011.15	0	9.6	0	1012.10	NP	10.94	--	1010.76	NP	11.1	--	1010.60
BH-7	1413570.801	2251798.856	1020.85	NP	9.98	--	1010.98	NP	12.93	--	1007.92	NP	12.06	--	1008.79	NP	13.4	--	1007.45	NP	13.35	--	1007.50
BH-8	1413576.301	2251777.000	1021.10	NP	12.48	--	1009.99	NP	13.84	--	1007.26	--	--	--	--	NP	14.15	--	1006.95	NP	--	--	--
BH-9	1413543.780	2251826.831	1021.92	9.55	9.65	0.1	1012.25	0	12.17	0	1009.75	0	11.61	0	1010.31	NP	--	--	--	13.95	14.05	0.1	1007.87
BH-10	1413504.506	2251848.726	1021.80	5.5	5.55	0.05	1016.56	0	9.27	0	1012.53	0	8.66	0	1013.14	NP	10.1	--	1011.70	NP	10.05	--	1011.75
BH-11	1413523.687	2251791.120	1021.38	NP	8.44	--	1012.94	NP	12.35	--	1009.03	NP	11.49	--	1009.89	NP	12.65	--	1008.73	NP	12.98	--	1008.40
BH-12	1413562.344	2251729.458	1022.27	NP	11.85	--	1010.40	NP	14.66	--	1007.61	NP	14.63	--	1007.64	NP	17.48	--	1004.79	NP	14.67	--	1007.60
BH-13	1413396.361	2251781.954	1021.98	NP	8.96	--	1013.01	NP	7.3	--	1014.68	NP	6.51	--	1015.47	NP	7.5	--	1014.48	NP	8.64	--	1013.34
BH-14	1413504.738	2251802.174	1021.63	NP	7.28	--	1014.34	NP	10.86	--	1010.77	NP	9.52	--	1012.11	NP	11.55	--	1010.08	NP	11.9	--	1009.73
BH-15	1413496.052	2251761.735	1021.48	NP	9.45	--	1012.16	NP	12.81	--	1008.67	NP	12.05	--	1009.43	NP	13.3	--	1008.18	NP	13.83	--	1007.65
BH-16	1413529.061	2251757.230	1020.89	NP	9.89	--	1011.08	NP	12.93	--	1007.96	NP	12.11	--	1008.78	NP	17.5	--	1003.39	NP	14.1	--	1006.79
BH-17	1413549.517	2251762.741	1021.06	NP	10.65	--	1010.60	NP	13.42	--	1007.64	NP	12.6	--	1008.46	NP	17.46	--	1003.60	NP	14.58	--	1006.48
BH-18	1413555.926	2251784.561	1020.92	NP	9.71	--	1011.18	NP	12.91	--	1008.01	NP	11.6	--	1009.32	NP	17.44	--	1003.48	NP	14.01	--	1006.91
BH-19	1413492.567	2251747.268	1021.27	NP	9.37	--	1011.89	NP	12.34	--	1008.93	NP	11.9	--	1009.37	NP	--	--	1021.27	NP	13.77	--	1007.50
BH-20	1413473.587	2251758.380	1021.65	NP	8.22	--	1013.46	NP	11.08	--	1010.57	NP	10.6	--	1011.05	NP	12.41	--	1009.24	NP	12.82	--	1008.83
BH-21	1413447.065	2251773.077	1021.71	NP	6.48	--	1015.47	NP	10.01	--	1011.70	NP	8.84	--	1012.87	NP	10.55	--	1011.16	NP	11.05	--	1010.66
BH-22	1413444.263	2251732.875	1025.53	NP	12.55	--	1010.09	NP	15.4	--	1010.13	NP	14.4	--	1011.13	NP	15.82	--	1009.71	NP	16.5	--	1009.03
BH-23	1413485.551	2251728.272	1021.17	NP	12.69	--	1008.47	NP	12.89	--	1008.28	NP	12.11	--	1009.06	NP	13.42	--	1007.75	NP	14.1	--	1007.07
BH-24	1413515.658	2251711.520	1021.06	NP	11.8	--	1009.51	NP	13.85	--	1007.21	NP	12.95	--	1008.11	NP	14.25	--	1006.81	NP	14.85	--	1006.21
MW-A	1413572.745	2251795.937	1023.18	NP	12.42	--	1010.73	NP	15.45	--	1007.73	NP	14.6	--	1008.58	NP	16	--	1007.18	NP	16.52	--	1006.66
MW-1	1413625.812	2251708.746	1022.88	NP	6.1	--	1016.80	NP	7.91	--	1014.97	NP	8.22	--	1014.66	NP	6.1	--	1016.78	NP	8	--	1014.88
MW-2	1413364.942	2252148.692	1031.72					NP	14.14	--	1017.58	NP	12.82	--	1018.90	NP	--	--	--	NP	16.55	--	1015.17
MW-3	1413231.916	2251572.779	1027.22													18.31	18.32	0.01	1008.90	NP	19.58	--	1007.64
MW-5	1413103.760	2251476.251	1028.96					NP	19.2	--	1009.76	NP	18.75	--	1010.21	NP	21.65	--	1007.31	NP	21.97	--	1006.99
MW-6	1412979.193	2251573.452	1025.71					NP	14.41	--	1011.30	NP	13.6	--	1012.11	NP	14.41	--	1011.30	NP	17.21	--	1008.50
MW-7	1413419.071	2251429.075	1016.61					NP	13.92	--	1002.69	NP	13.92	--	1002.69	NP	15.11	--	1001.50	NP	15.8	--	1000.81
MW-9	1413562.604	2251521.439	1017.84					NP	14.31	--	1003.53	NP	14.85	--	1002.99	NP	15.52	--	1002.32	NP	--	--	--
MW-11	1413501.383	2251489.959	1018.15					NP	15.06	--	1003.09	NP	15.5	--	1002.65	NP	16.6	--	1001.55	NP	17.25	--	1000.90
MW-12	1413491.532	2251754.256	1021.47	NP	11.71	--	1009.75	NP	14.6	--	#REF!	NP	13.84	--	#REF!	NP	15.22	--	1006.25	NP	15.84	--	1005.63
RW-19	1413494.778	2251761.095	1021.63					NP	11.8	--	1009.83	NP	11	--	1010.63	NP	--	--	--	NP	--	--	--
EW-A1	1413156.773	2251480.985	1026.81					NP	21.34	--	1005.47	NP	18.27	--	1008.54	NP	20.14	--	1006.67	NP	21.03	--	1005.78
EW-A2	1413208.943	2251475.164	1023.41					NP	17.27	--	1006.14	NP	16.29	--	1007.12	NP	9.7	--	1013.71	NP	18.64	--	1004.77
EW-A3	1413262.518	2251465.917	1022.95					NP	19.51	--	1003.44	NP	17.17	--	1005.78	NP	18.3	--	1004.65	NP	19.28	--	1003.67
EW-A4	1413307.061	2251470.442	1022.89					NP	18.46	--	1004.43	NP	17.85	--	1005.04	NP	19.2	--	1003.69	NP	19.76	--	1003.13
EW-A5	1413354.431	2251471.841	1022.86					--	dry	--	dry	--	dry	--	dry	NP	--	--	--	--	--	--	--
EW-A6	1413427.569	2251466.291	1022.12					NP	20.83	--	1001.29	NP	19.25	--	1002.87	NP	20.23	--	1001.89	NP	21.11	--	1001.01
EW-A7	1413469.253	2251489.281	1020.96					NP	19.43	--	1001.53	NP	18.2	--	1002.76	NP	21.6	--	999.36	NP	20	--	1000.96
EW-A8	1413495.732	2251531.714	1021.70					NP	19.42	--	1002.28	NP	18.25	--	1003.45	NP	25.6	--	996.10	NP	19.92	--	1001.78
EW-A9	1413523.394	2251579.948	1021.91					NP	18.25	--	1003.66	NP	17.12	--	1004.79	NP	19.6	--	1002.31	NP	19.89	--	1002.02
EW-A10	1413550.394	2251622.078	1021.67					NP	16.84	--	1004.83	NP	16.22	--	1005.45	NP	22	--	999.67	NP	18.05	--	1003.62
EW-B1	1413184.167	2251528.263	1024.26					--	--	--	--	--	--	--	--	NP	--	--	--	--	--	--	--
EW-B3	1413264.360	2251565.546	1024.79					NP	17.38	--	1007.41	NP	15.65	--	1009.14	NP	17.3	--	1007.49	NP	--	--	--
EW-B4	1413236.323	2251520.286	1023.75					NP	17.25	--	1006.50	NP	16.26	--	1007.49	NP	16.95	--	1006.80	NP	17.63	--	1006.12
EW-B5	1413285.278	2251517.47	1024.2					NP	17.56	--	1006.64	NP	17.05	--	1007.15	NP	18.25	--	1005.95	NP	17.92	--	1006.28
EW-B6	1413336.823	2251518.769	1024.23					NP	18.5	--	1005.73	NP	18.25	--	1005.98	NP	19.3	--	1004.93	NP	20.20	--	1004.03
EW-C6	1413414.286	2251748.864	1024.26					NP	9.91	--	1014.35	NP	8.9	--	1015.36	NP	8.2	--	1016.06	NP	11.00	--	1013.26
EW-C7	1413381.058	2251766.848	1022.21					NP	7.59	--	1014.62	NP	6.75	--	1015.46	NP	7.75	--	1014.46	NP	9.05	--	1013.16
EW-C8	1413450.667	2251725.899	1021.63					NP	12.4	--	1009.23	NP	11.51	--	1010.12	NP	12.9	--	1008.73	NP	13.55	--	1008.08
EW-C9	1413508.32	2251704.871	1024.20					NP	14.05	--	1010.15	NP	13.36	--	1010.84	NP	14.2	--	1010.00	NP	15.35	--	1008.85
EW-D3	?	?	1024.23					NP	8.91	--	1015.32	NP	7.92	--	1016.31	NP	9.06	--	1015.17	NP	12.20	--	1012.03
EW-D5	1413053.598	2251491.783	1026.77					NP	16.44	--	1010.33	NP	15.14	--	1011.63	NP	22.11	--	1004.66	NP	19.88	--	1006.89
EW-D6	1413104.302	2251485.288	1026.4					NP	17.59	--	1008.81	NP	15.86	--	1010.54	NP	22.65	--	1003.75	NP	19.10	--	1007.30
EW-D7	1413037.654	2251557.584	1023.72					NP	10.7	--	1013.02	NP	9.7	--	1014.02	NP	10.98	--	1012.74	NP	13.65	--	1010.07
EW-D8	1412989.076	2251565.812	1022.91					NP	11.1	--	1011.81	NP	10.25	--	1012.66	NP	11.2	--	1011.71	NP	13.95	--	1008.96
EW-D9	1412989.465	2251517.225	1023.65					NP	13.02	--	1010.63	NP	11.95	--	1011.70	NP	13.23	--	1010.42	NP	15.55	--	1008.10

NOTES:

* Throughout 2007 and without prior notice, the tops of some GE well casings were cut off by an unknown amount. GW Elevation for the dates noted is referenced from 5/30/08 Top-of-Casing Elevation Survey.

** Measurements on September 21, 2009 were collected during flooding event. Locations BH-6 and BH-18 not measured due to standing water.

¨ Surveyed February 2013

ft. = feet; AMSL = Above Mean Sea Level; bgs = below ground surface; NA = information not available; NM = not measured; NP = product not measured; GW = Groundwater

Blank — Blank cell indicates a water level measurement was not taken.

Table 1
Historical Groundwater Elevation Measurements
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Monitoring Well Location	Georgia State Plane Coordinate System Northing	Easting	Top-of-Casing Elevation (Surveyed 2010) (ft.	2/15/13 Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Groundwa Elevation (ft AMSL)
BH-6	1413525.036	2251836.472	1021.70	NP	8.10	--	1013.60
BH-7	1413570.801	2251798.856	1020.85	NP	11.82	--	1009.03
BH-8	1413576.301	2251777.000	1021.10	NP	12.92	--	1008.18
BH-9	1413543.780	2251826.831	1021.92	NP	10.62	--	1011.30
BH-10	1413504.506	2251848.726	1021.80	NP	7.15	--	1014.65
BH-11	1413523.687	2251791.120	1021.38	NP	10.58	--	1010.80
BH-12	1413562.344	2251729.458	1022.27	NP	13.10	--	1009.17
BH-13	1413396.361	2251781.954	1021.98	NP	5.10	--	1016.88
BH-14	1413504.738	2251802.174	1021.63	NP	8.78	--	1012.85
BH-15	1413496.052	2251761.735	1021.48	NP	11.32	--	1010.16
BH-16	1413529.061	2251757.230	1020.89	NP	11.70	--	1009.19
BH-17	1413549.517	2251762.741	1021.06	NP	12.35	--	1008.71
BH-18	1413555.926	2251784.561	1020.92	NP	11.70	--	1009.22
BH-19	1413492.567	2251747.268	1021.27	NP	11.30	--	1009.97
BH-20	1413473.587	2251758.380	1021.65	NP	11.16	--	1010.49
BH-21	1413447.065	2251773.077	1021.71	NP	7.20	--	1014.51
BH-22	1413444.263	2251732.875	1025.53	NP	13.72	--	1011.81
BH-23	1413485.551	2251728.272	1021.17	NP	11.57	--	1009.60
BH-24	1413515.658	2251711.520	1021.06	NP	12.65	--	1008.41
MW-A	1413572.745	2251795.937	1023.18	NP	14.40	--	1008.78
MW-1	1413625.812	2251708.746	1022.88	NP	6.08	--	1016.80
MW-2	1413364.942	2252148.692	1031.72	NP	15.52	--	1016.20
MW-3	1413231.916	2251572.779	1027.22	17.13	17.16	0.03	1010.06
MW-5	1413103.760	2251476.251	1028.96	NP	18.95	--	1010.01
MW-6	1412979.193	2251573.452	1025.71	NP	11.40	--	1014.31
MW-7	1413419.071	2251429.075	1016.61	NP	12.82	--	1003.79
MW-9	1413562.604	2251521.439	1017.84	NP	13.60	--	1004.24
MW-11	1413501.383	2251489.959	1018.15	NP	14.22	--	1003.93
MW-12	1413491.532	2251754.256	1021.47	NP	13.75	--	1007.72
RW-19	1413494.778	2251761.095	1021.63	NP	17.79	--	1003.84
EW-A1	1413156.773	2251480.985	1026.81	NP	10.09	--	1016.72
EW-A2	1413208.943	2251475.164	1023.41	NP	12.5	--	1010.91
EW-A3	1413262.518	2251465.917	1022.95	NP	8.4	--	1014.55
EW-A4	1413307.061	2251470.442	1022.89	NP	12.44	--	1010.45
EW-A5	1413354.431	2251471.841	1022.86	--	0	--	1022.86
EW-A6	1413427.569	2251466.291	1022.12	NP	10.8	--	1011.32
EW-A7	1413469.253	2251489.281	1020.96	NP	13.08	--	1007.88
EW-A8	1413495.732	2251531.714	1021.70	NP	12.13	--	1009.57
EW-A9	1413523.394	2251579.948	1021.91	NP	13.05	--	1008.86
EW-A10	1413550.394	2251622.078	1021.67	NP	9.05	--	1012.62
EW-B1	1413184.167	2251528.263	1024.26	--	--	--	--
EW-B3	1413264.360	2251565.546	1024.79	NP	9.35	--	1015.44
EW-B4	1413236.323	2251520.286	1023.75	NP	10.85	--	1012.90
EW-B5	1413285.278	2251517.47	1024.2	NP	10.68	--	1013.52
EW-B6	1413336.823	2251518.769	1024.23	NP	11.89	--	1012.34
EW-C6	1413414.286	2251748.864	1024.26	NP	5.73	--	1018.53
EW-C7	1413381.058	2251766.848	1022.21	NP	22.59	--	999.62
EW-C8	1413450.667	2251725.899	1021.63	NP	17.51	--	1004.12
EW-C9	1413508.32	2251704.871	1024.20	NP	15.46	--	1008.74
EW-D3	?	?	1024.23	NP	22.35	--	1001.88
EW-D5	1413053.598	2251491.783	1026.77	NP	8.55	--	1018.22
EW-D6	1413104.302	2251485.288	1026.4	NP	13.97	--	1012.43
EW-D7	1413037.654	2251557.584	1023.72	NP	21.65	--	1002.07
EW-D8	1412989.076	2251565.812	1022.91	NP	19.5	--	1003.41
EW-D9	1412989.465	2251517.225	1023.65	NP	17.45	--	1006.20

Table 2
Monitoring Well Construction Details
Voluntary Remediation Plan
Former Oxford Chemicals Property, Chamblee, Georgia

Well Number	Georgia State Plane Coordinate System (Survey 12/2010)		Ground Surface Elevation	Top-of-Casing Elevation	Bottom of Well	Screened Interval	Shallow/Deep
	Northing	Easting	(ft. AMSL)	(ft. AMSL)	(ft. bgs)	(ft. bgs)	
BH-6	1413525.036	2251836.472	1021.64	1021.70	14.5	9.5 - 14.5	shallow
BH-7	1413570.801	2251798.856	1020.77	1020.85	14.0	9 - 14	shallow
BH-8	1413576.301	2251777.000	1021.19	1021.10	14.5	9.5 - 14.5	shallow
BH-9	1413543.780	2251826.831	1021.49	1021.92	14.5	9.5 - 14.5	shallow
BH-10	1413504.506	2251848.726	1021.75	1021.80	14.5	9.5 - 14.5	shallow
BH-11	1413523.687	2251791.120	1021.44	1021.39	14.0	8 - 14	shallow
BH-12	1413562.344	2251729.458	1020.33	1022.27	13.5	8.5 - 13.5	shallow
BH-13	1413396.361	2251781.954	1022.05	1021.98	15.5	10.5 - 15.5	shallow
BH-14	1413504.738	2251802.174	1021.60	1021.63	14.5	9.5 - 14.5	shallow
BH-15	1413496.052	2251761.735	1021.55	1021.48	25.0	15 - 25	shallow
BH-16	1413529.061	2251757.230	1021.00	1020.89	25.0	15 - 25	shallow
BH-17	1413549.517	2251762.741	1021.11	1021.06	20.0	9.36 - 20	shallow
BH-18	1413555.926	2251784.561	1020.94	1020.92	19.0	9.22 - 19	shallow
BH-19	1413492.567	2251747.268	1021.40	1021.27	21.0	9.6 - 21	shallow
BH-20	1413473.587	2251758.380	1021.62	1021.70	21.0	9.65 - 21	shallow
BH-21	1413447.065	2251773.077	1021.85	1021.71	21.0	8.98 - 21	shallow
BH-22	1413444.263	2251732.875	1022.06	1025.53	21.0	9.65 - 21	shallow
BH-23	1413485.551	2251728.272	1021.28	1021.17	21.0	9.56 - 21	shallow
BH-24	1413515.658	2251711.520	1021.17	1021.06	21.0	9.05 - 21	shallow
EW-A1	1413156.773	2251480.985	NA	1026.81	29.4	* - *	shallow
EW-A2	1413208.943	2251475.164	NA	1023.41	28.9	* - *	shallow
EW-A3	1413262.518	2251465.917	NA	1022.95	24.70	* - *	shallow
EW-A4	1413307.061	2251470.442	NA	1022.89	29.15	* - *	shallow
EW-A5	1413354.431	2251471.841	NA	1022.86	NA	* - *	shallow
EW-A6	1413427.569	2251466.291	NA	1022.12	29.25	* - *	shallow
EW-A7	1413469.253	2251489.281	NA	1020.96	29.80	* - *	shallow
EW-A8	1413495.732	2251531.714	NA	1021.70	29.15	* - *	shallow
EW-A9	1413523.394	2251579.948	NA	1021.91	29.40	* - *	shallow
EW-A10	1413550.394	2251622.078	NA	1021.67	24.6	* - *	shallow
EW-B1+	1413184.167	2251528.263	NA	1024.26	NA	* - *	shallow
EW-B3	1413264.360	2251565.546	NA	1024.83	25.30	* - *	shallow
EW-B4	1413236.323	2251520.286	NA	1023.81	26.80	* - *	shallow
EW-B5	1413285.278	2251517.47	NA	1024.20	28.38	* - *	shallow
EW-B6	1413336.823	2251518.769	NA	1024.23	28.73	* - *	shallow
EW-C6	1413414.286	2251748.864	NA	1022.00	13.68	* - *	shallow
EW-C7	1413381.058	2251766.848	NA	1022.21	28.05	* - *	shallow
EW-C8	1413450.667	2251725.899	NA	1021.63	28.46	* - *	shallow
EW-C9	1413508.32	2251704.871	NA	1021.23	28.50	* - *	shallow
EW-D5	1413053.598	2251491.783	NA	1026.77	24.00	* - *	shallow
EW-D6	1413104.302	2251485.288	NA	1026.40	29.50	* - *	shallow
EW-D7	1413037.654	2251557.584	NA	1023.72	30.35	* - *	shallow
EW-D8	1412989.076	2251565.812	NA	1022.91	27.70	* - *	shallow
EW-D9	1412989.465	2251517.225	NA	1023.65	29.45	* - *	shallow
RW-19	1413494.778	2251761.095	NA	1021.63	27.6	NA - NA	shallow
MW-A	1413572.745	2251795.937	1021	1023.18	32.0	NA - NA	shallow
MW-1	1413625.812	2251708.746	1021.3	1022.88	17	4.5 - 14.5	shallow
MW-2	1413364.942	2252148.692	NA	1031.72	24.00	14.0 - 24.0	shallow
MW-3	1413231.916	2251572.779	NA	1027.22	25.00	15.0 - 25.0	shallow
MW-5	1413103.76	2251476.251	NA	1028.96	28.00	18.0 - 28.0	shallow
MW-6	1412979.193	2251573.452	NA	1025.71	26.00	16.0 - 26.0	shallow
MW-7	1413419.071	2251429.075	NA	1016.61	23	13.0 - 23.0	shallow
MW-9	1413562.604	2251521.439	NA	1017.84	15	4.0 - 15.0	shallow
MW-11	1413501.383	2251489.959	NA	1018.15	28.96	NA - NA	shallow
MW-12	1413491.532	2251754.256	1021.74	1021.51	65	55 - 65	deep (bedrock)
MW-23	1413418.365	2252223.543	NA	1032.21	60	NA - NA	deep (bedrock)
MW-24	1413421.910	2252228.354	NA	1032.38	30	NA - NA	shallow
PZ-1	1413652.890	2251678.706	1020.88	1020.31	20	4.5 - 19.5	shallow
PZ-2	1413664.334	2251611.757	1019.96	1019.55	19.5	4.0 - 19.0	shallow

Notes:
NA, Not Available at the time of this report.
*, Historical documents indicate that screened intervals for these wells are either 10 ft. or 15 ft. in length.
+, Recovery pump stuck in well.

Table 3
Constituents of Interest
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Groundwater	Soil
Volatile Organic Compounds	
	1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane	1,1,1-Trichloroethane
	1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane	1,1,2-Trichloroethane
1,1-Dichloroethane	1,1-Dichloroethane
1,1-Dichloroethene	1,1-Dichloroethene
	1,2,3-Trichloropropane
1,2,4-Trichlorobenzene	1,2,4-Trichlorobenzene
	1,2-Dibromo-3-Chloropropane
1,2-Dichlorobenzene	1,2-Dichlorobenzene
1,2-Dichloroethane	1,2-Dichloroethane
1,2-Dichloropropane	1,2-Dichloropropane
1,3-Dichlorobenzene	1,3-Dichlorobenzene
1,4-Dichlorobenzene	1,4-Dichlorobenzene
2-Butanone	2-Butanone
4-Methyl-2-pentanone	4-Methyl-2-pentanone
Acetone	Acetone
Benzene	Benzene
	Bromoform
	Carbon disulfide
Chlorobenzene	Chlorobenzene
Chloroethane	Chloroethane
cis-1,2-dichloroethene	cis-1,2-Dichloroethene
	Cyclohexane
	Dichlorodifluoromethane
Ethylbenzene	Ethylbenzene
	Isopropylbenzene
Methylene chloride	Methylene chloride
Styrene	Styrene
Tetrachloroethene (PCE)	Tetrachloroethene (PCE)
Toluene	Toluene
trans-1,2-dichloroethene	trans-1,2-Dichloroethene
Trichloroethene (TCE)	Trichloroethene (TCE)
Vinyl Chloride	Vinyl Chloride
Xylene (total)	Xylene (total)
Semi-Volatile Organic Compounds	
2-Chlorophenol	
	2,4,5-Trichlorophenol
	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
2,4-Dimethylphenol	2,4-Dimethylphenol
	2,4-Dinitrophenol
2-Methylphenol	2-Methylphenol
4-Methylphenol	4-Methylphenol
Acenaphthene	Acenaphthene
	Acenaphthylene
Acetophenone	
	Anthracene
	Benzo(a)anthracene
	Benzo(a)pyrene

Table 3
Constituents of Interest
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Groundwater	Soil
Semi-Volatile Organic Compounds	
Benzo(b)fluoranthene	Benzo(b)fluoranthene
	Benzo(g,h,i)perylene
	Benzo(k)fluoranthene
	bis(2-Chloroisopropyl)ether
	bis(2-Ethyllhexyl)phthalate
	Chrysene
	Dibenz(a,h)anthracene
	Di-n-butylphthalate
	Di-n-octyl phthalate
	Fluoranthene
Fluorene	Fluorene
	Indeno(1,2,3-cd)pyrene
Naphthalene	Naphthalene
	N-Nitrosodiphenylamine
	Pentachlorophenol (PCP)
	Phenanthrene
Phenol	Phenol
	Pyrene
Pesticides	
4,4' -DDD	4,4' -DDD
4,4' -DDE	4,4' -DDE
4,4' -DDT	4,4' -DDT
	Aldrin
	alpha-Endosulfan (Endosulfan I)
	alpha-BHC
beta-BHC	beta-BHC
	beta-Endosulfan (Endosulfan II)
	gamma-Chlordane
Chlordane	Chlordane
	delta-BHC
Dieldrin	Dieldrin (delta-Benzenehexachloride)
	Endosulfan sulfate
	Endrin
	Endrin aldehyde
	Endrin ketone
	Heptachlor epoxide
Lindane	Lindane
	Methoxychlor
PCBs	
Aroclor 1260	Aroclor 1260
Aroclor 1232	
Aroclor 1016	

Notes:

Groundwater COIs obtained from detections identified in groundwater sampling of 35 extraction/recovery wells by ESC in March 2003 and sampling of wells by Winter Environmental in 2011 & 2012.

Constituent not detected in historical samples.

Table 4
Delineation Standards for Groundwater and Soil
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Constituent		Type 1 GW RRS (mg/L)	Type 1 Soil RRS (mg/kg)
Volatile Organic Compounds			
Acetone	67-64-1	4	400
Benzene	71-43-2	0.005	0.5
Bromoform	75-25-2	0.08	8
2-Butanone	78-93-3	2	200
Carbon Disulfide	75-15-0	4	400
Chlorobenzene	108-90-7	0.1	10
Chloroethane	75-00-3	DL	1.0
Cyclohexane	110-82-7	DL	20
1,2-Dibromo-3-Chloropropane	96-12-8	0.0002	0.02
1,2-Dichlorobenzene	95-50-1	0.6	60
1,3-Dichlorobenzene	541-73-1	0.6	60
1,4-Dichlorobenzene	106-46-7	0.075	7.5
Dichlorodifluoromethane	75-71-8	1	46.54
1,1-Dichloroethane	75-34-3	4	400
1,2-Dichloroethane	107-06-2	0.005	0.5
1,1-Dichloroethene	75-35-4	0.007	0.7
cis-1,2-dichloroethene	156-59-2	0.07	7
trans-1,2-dichloroethene	156-60-5	0.1	10
1,2-Dichloropropane	78-87-5	0.005	0.5
Ethylbenzene	100-41-4	0.7	70
Isopropylbenzene (cumene)	98-82-8	DL	21.88
4-Methyl-2-pentanone	108-10-1	2	200
Methylene chloride	75-09-2	0.005	0.5
Styrene	100-42-5	0.1	14
1,1,1,2-Tetrachloroethane	630-20-6	0.07	7
1,1,2,2-Tetrachloroethane	79-34-5	DL/0.0002	0.13
Tetrachloroethylene	127-18-4	0.005	0.5
Toluene	108-88-3	1	100
1,2,4-Trichlorobenzene	120-82-1	0.07	10.83
1,1,1-Trichloroethane	71-55-6	0.2	20
1,1,2-Trichloroethane	79-00-5	0.005	0.5
Trichloroethylene	79-01-6	0.005	0.5
1,2,3-Trichloropropane	96-18-4	0.04	0.5
Vinyl Chloride	75-01-4	0.002	0.2
Xylenes	1330-20-7	10	1000
Semivolatile Organic Compounds			
Acenaphthene	83-32-9	2	300
Acenaphthylene	208-96-8	DL	130
Acetophenone	98-86-2	4	400
Anthracene	120-12-7	DL	500
Benzo(a)anthracene	56-55-3	0.0001	5
Benzo(a)pyrene	50-32-8	0.0002	1.64
Benzo(b)fluoranthene	205-99-2	0.0002	5
Benzo(g,h,i)perylene	191-24-2	DL	500
Benzo(k)fluoranthene	207-08-9	DL	5
bis(2-chloroisopropyl)ether	108-60-1	DL	170.91
bis(2-ethylhexyl)phthalate	117-81-7	0.006	50
2-Chlorophenol	95-57-8	0.04	4
Chrysene	218-01-9	0.33	33
Dibenzo(a,h)anthracene	53-70-3	0.0003	2.05
2,4-Dichlorophenol	120-83-2	0.02	2
Di-n-butylphthalate	84-74-2	4	400

Table 4
Delineation Standards for Groundwater and Soil
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Constituent		Type 1 GW RRS (mg/L)	Type 1 Soil RRS (mg/kg)
2,4-Dimethylphenol	105-67-9	0.7	70
2,4-Dinitrophenol	51-28-5	0.0017	3.3
Di-n-octylphthalate	117-84-0	0.7	70
Fluoranthene	206-44-0	1	500
Fluorene	86-73-7	1	360
Indeno(1,2,3-cd)pyrene	193-39-5	0.0004	5
2-Methylphenol	95-48-7	DL	3.8
4-Methylphenol	106-44-5	DL	3.8
Naphthalene	91-20-3	0.02	100
N-Nitrosodiphenylamine	86-30-6	DL	6.46
Pentachlorophenol	87-86-5	0.001	3.3
Phenanthrene	85-01-8	DL	110
Phenol	108-95-2	4	400
Pyrene	129-00-0	1	500
2,4,5-Trichlorophenol	95-95-4	4	400
2,4,6-Trichlorophenol	88-06-2	0.03	3
Pesticides / Polychlorinated Biphenyls			
Aroclor 1016	12674-11-2	0.0005	1.55
Aroclor 1260	11096-82-5	0.0005	1.55
Aldrin	309-00-2	0.0017	0.66
alpha-Endosulfan	95-99-98	0.002	10
alpha-BHC	319-84-6	0.0017	0.66
beta-BHC	319-85-7	0.0017	0.66
beta-Endosulfan	33213-65-9	0.002	10
Chlordane	12789-03-6	0.002	9.2
delta-BHC	319-86-8	DL	25
DDD	72-54-8	0.0001	0.66
DDE	72-55-9	0.0001	0.66
DDT	50-29-3	0.0001	0.66
Dieldrin	60-57-1	0.00002	0.66
Endosulfan sulfate	1031-07-8	0.0001	1.65
Endrin	72-20-8	0.002	10
Endrin aldehyde	7421-93-4	0.0001	10
Endrin ketone	53494-70-5	0.0001	10
Heptachlor epoxide	1024-57-3	0.0002	1.64
Lindane	58-89-9	0.0002	0.66
Methoxychlor	72-43-5	0.04	10

Notes:
NA = No value available
DL = Analytical detection limit
mg/L = Milligrams per liter
mg/kg = Milligrams per kilogram
Reference: Georgia EPD, Risk Reduction Standards, 391-3-19-.07.
Available online at: http://www.gaepd.org/Documents/hsraguideCSRRRS.html.

ERM Review of Environmental Conditions Report (1993 Data)																			
Constituent	CAS NUMBER	Type 1 RRS (mg/kg)	Non-Residential RRS SS Soil (0-2') RRS	SS Soil (0-2') RRS Type	SB Soil (>2') RRS	SB Soil (>2') RRS Type	B-1 (8-10ft) May-93	B-1 (12.5-14ft) May-93	B-2 (13-15ft) May-93	B-3 (8-10ft) May-93	B-4 (8-10ft) May-93	B-5 (13-15ft) May-93	B-6 (13-15ft) May-93	B-7 (13-15ft) May-93	B-8 (8-10ft) May-93	B-8 (13-15ft) May-93	B-9 (3-5ft) May-93	B-9 (8-10ft) May-93	B-10 (8-10ft) May-93
Semivolatiles- mg/kg																			
2,4,5-Trichlorophenol	95-95-4	400	7305	Type 4	7305	Type 4	0.96 U								0.95 U		1 U		
2,4,6-Trichlorophenol	88-06-2	3.00	43.4	Type 4	43.4	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	0.41 U	0.45 U	0.39 U	0.92 U	0.41 U	0.42 U	20
2,4-Dichlorophenol	120-83-2	2.00	61.5	Type 4	61.5	Type 4		20 U	0.22 J	0.41 U	0.42 U	26 U	0.41 U	0.45 U		0.92 U		0.42 U	20
2,4-Dimethylphenol	105-67-9	70.0	410	Type 4	410	Type 4		20 U	0.42 U	0.41 U	0.42 U	26 U	0.41 U	0.45 U		0.92 U		0.42 U	20
2,4-Dinitrophenol	51-28-5	3.30	38.5	Type 4	38.5	Type 4	0.96 U								0.95 U		1 U		
2-Methylphenol	95-48-7	3.80	327	Type 4	327	Type 4	0.041 J	20 U	0.42 U	0.41 U	0.42 U	26 U	0.41 U	0.45 U	0.39 U	0.92 U	0.41 U	0.42 U	20
4-Methylphenol	106445	3.80	429	Type 4	429	Type 4	0.065 J	20 U	0.42 U	0.41 U	0.42 U	26 U	0.41 U	0.45 U	0.39 U	**0.92** D	0.41 U	0.42 U	20
Acenaphthene	83-32-9	300	12355	Type 4	12355	Type 4		11 J	**0.64**	0.41 U	0.42 U	25 J	0.26 J	0.45 U		**1.3**		0.37 J	20
Acenaphthylene	208-96-8	130	84969	Type 4	84969	Type 4													
Anthracene	120-12-7	500	200762	Type 4	100000	Type 4		20 U	0.42 U	0.41 U	0.42 U	26 U	**0.85**	0.45 U		0.1 J		0.42 U	20
Benzo(a)anthracene	56-55-3	5.00	78.4	Type 4	100.6	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	**2.9**	0.45 U	0.1 J	0.92 U	0.41 U	0.42 U	20
Benzo(a)pyrene	50-32-8	1.64	7.84	Type 4	46.99	Type 4	0.39 U								0.1 J		0.41 U		
Benzo(b)fluoranthene	205-99-2	5.00	17.0	Type 4	340.8	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	**4.5** D	0.45 U	0.15 J	0.92 U	0.41 U	0.42 U	20
Benzo(g,h,i)perylene	191-24-2	500	613200	Type 4	100000	Type 4	0.39 U	20 U	U	0.41 U	0.42 U	26 U	**1.4**	0.45 U	0.063 J	0.92 U	0.41 U	0.42 U	20
Benzo(k)fluoranthene	207-08-9	5.00	496	Type 4	496	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	**0.56**	0.45 U	0.049 J	0.92 U	0.41 U	0.42 U	20
bis(2-Chloroisopropyl)ether	108-60-1	171	171	Type 3	171	Type 3		20 U	0.42 U	0.41 U	0.42 U	26 U	0.41 U	0.45 U		0.92 U		0.42 U	20
bis(2-Ethyllhexyl)phthalate	117-81-7	50.0	3260	Type 4	3260	Type 4	0.39 U	20 U	0.19 J	0.11 J	0.42 U	26 U	0.33 J	0.45 U	0.39 U	0.92 U	0.41 U	0.13 J	2.8
Chrysene	218-01-9	330	7839	Type 4	23827	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	**2.4**	0.45 U	0.1 J	0.92 U	0.41 U	0.42 U	20
Dibenz(a,h)anthracene	53-70-3	2.05	7.84	Type 4	229.44	Type 4		20 U	0.42 U	0.41 U	0.42 U	26 U	**0.48**	0.45 U		0.92 U		0.42 U	20
Di-n-butylphthalate	84-74-2	400	4771	Type 4	4771	Type 4		20 U	0.13 J	0.41 U	0.42 U	26 U	0.17 J	0.45 U		0.92 U		0.42 U	20
Di-n-octyl phthalate	117840	70.0	23296003	Type 4	100000	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	0.047 J	0.2 J	0.086 J	0.92 U	0.41 U	0.42 U	20
Fluoranthene	206-44-0	500	81760	Type 4	90688	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	**10** D	0.45 U	0.15 J	0.92 U	0.41 U	0.42 U	20
Fluorene	86-73-7	360	14995	Type 4	14995	Type 4	0.39 U	9.7 J	0.33 J	0.41 U	0.42 J	16 J	**0.43**	0.45 U	0.39 U	0.92 U	0.41 U	0.11 J	20
Indeno(1,2,3-cd)pyrene	193-39-5	5.00	78.4	Type 4	1109.2	Type 4	0.39 U								0.062 J		0.41 U		
Naphthalene	91-20-3	100	100	Type 3	100	Type 3	0.091 J	**150** D	**6.1** D	0.054 J	0.42 U	**750** D	**1.2**	0.45 U	0.39 U	**51** D	0.41 U	**3.4**	4.1
N-Nitrosodiphenylamine	86-30-6	6.46	86.7	Type 4	86.7	Type 4		6.1 J	0.3 J	0.41 U	0.42 U	26 U	0.41 U	0.45 U		0.92 U		0.42 U	20
Pentachlorophenol (PCP)	87-86-5	3.30	12.4	Type 4	12.4	Type 4	0.96 U								0.95 U		1 U		
Phenanthrene	85-01-8	110	173352	Type 4	100000	Type 4	0.39 U	4.8 J	0.34 J	0.41 U	0.42 U	5.9 J	**8.2** D	0.45 U	0.16 J	0.44 J	0.41 U	0.069 J	20
Phenol	108-95-2	400	400	Type 3	400	Type 3	0.28 J	20 U	0.42 U	0.41 U	0.42 U	22 J	0.41 U	0.45 U	0.39 U	0.92 U	0.41 U	0.42 U	20
Pyrene	129-00-0	500	61320	Type 4	66655	Type 4	0.39 U	20 U	0.42 U	0.41 U	0.42 U	26 U	**6.7** D	0.45 U	0.15 J	0.92 U	0.41 U	0.42 U	20
Volatiles-mg/kg																			
1,1,1,2-Tetrachloroethane	630-20-6	7.00	9.83	Type 4	9.83	Type 4													
1,1,1-Trichloroethane	71-55-6	20.0	824	Type 4	824	Type 4	1.5 U	1 J	2.4 U	0.013 U	0.012 U	2.4 U	1.5 U	1.6 U	1.5 U	**25**	0.013 U	6 U	12
1,1,2,2-Tetrachloroethane	79-34-5	0.13	0.14	Type 4	0.14	Type 4													
1,1,2-Trichloroethane	79-00-5	0.50	3.33	Type 4	3.33	Type 4													
1,1-Dichloroethane	75-34-3	400	400	Type 3	400	Type 3	1.5 U	1.4 U	2.4 U	0.013 U	0.012 U	2.4 U	1.5 U	1.6 U	1.5 U	12 U	0.002 J	6 U	12
1,1-Dichloroethene	75-35-4	0.70	1.21	Type 4	24.27	Type 4													
1,1-Dichloroethylene (DCE)	75-35-4	0.70	1.21	Type 4	24.27	Type 4													
1,2,3-Trichloropropane	96-18-4	0.498	1.91	Type 4	4.00	Type 3													
1,2,4-Trichlorobenzene	120-82-1	10.8	10.8	Type 3	38.3	Type 4	0.39 U	**170** D	**2.9** D	0.41 U	0.42 U	**430** D	**9.8** D	0.45 U	0.39 U	**44**	0.41 U	**0.81**	12
1,2-Dibromo-3-Chloropropane	96-12-8	0.02	0.02	Type 3	0.02	Type 3													
1,2-Dibromoethane	106-93-4		N	N	N	N													
1,2-Dichlorobenzene	95-50-1	60.0	60.0	Type 3	231.0	Type 4	0.049 J	**150**	**22** D	0.34 J	0.42 U	**110**	**1.5**	0.45 U	0.15 J	**55** D	0.41 U	**4.6** D	**2600**
1,2-Dichloroethane	107-06-2	0.50	1.45	Type 4	1.45	Type 4													
1,2-Dichloropropane	78-87-5	0.50	0.53	Type 4	0.53	Type 4													
1,3-Dichlorobenzene	541-73-1	60.0	369	Type 4	369	Type 4		9.7 J	**2.3**	0.41 U	0.42 U	26 U	0.046 J	0.45 U		**2.1**		0.12 J	**31**
1,3-Dichloropropane	142-28-9		N	N	N	N													
1,4-Dichlorobenzene	106-46-7	7.50	7.5	Type 3	11.6	Type 4		**23**	**4.8** D	0.069 J	0.42 U	16 J	**0.46**	0.45 U		**6.4**		**0.59**	**320**
2-Butanone	78-93-3	200	200	Type 3	200	Type 3	1.4 J	**2** D	0.54 J	0.013 U	0.012 U	2.4 U	1.5 U	1.2 J	1.1 J	12 B	0.013 U	6 U	12
2-Chloroethyl vinyl Ether	110-75-8		N	N	N	N													
4-Methyl-2-pentanone	108-10-1	200	200	Type 3	200	Type 3		1.4 U	2.4 U	0.013 U	0.012 U	2.4 U	1.5 U	1.6 U		12 U		6 U	12
Acetone	67-64-1	400	400	Type 3	400	Type 3	**41** D	35 U	**35**	**0.039**	0.01 J	2.4 U	**4.8**	**6.3**	4.1 U	12 U	**0.014**	1.3 J	**16**
Benzene	71-43-2	0.50	1.23	Type 4	1.23	Type 4		1.4 U	2.4 U	0.013 U	0.012 U	0.32 J	1.5 U	1.6 U		12 U		6 U	12
Bromodichloromethane	75-27-4		N	N	N	N													
Bromoform	75-25-2	8.00	8.0	Type 3	8.0	Type 3													
Bromomethane	74-83-9		N	N	N	N													
Carbon disulfide	75-15-0	400	400	Type 3	400	Type 3													
Carbon Tetrachloride	56-23-5		N	N	N	N													

ERM Review of Environmental Conditions Report (1993 Data)																			
Location	CAS NUMBER	Type 1 RRS (mg/kg)	Non-Residential RRS				B-1	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-8	B-9	B-9	B-10
Depth (feet bgs)			SS Soil (0-2')		SB Soil (>2')		(8-10ft)	(12.5-14ft)	(13-15ft)	(8-10ft)	(8-10ft)	(13-15ft)	(13-15ft)	(13-15ft)	(8-10ft)	(13-15ft)	(3-5ft)	(8-10ft)	(8-10ft)
Constituent / Date Sampled			RRS	RRS Type	RRS	RRS Type	May-93	May-93	May-93	May-93	May-93	May-93	May-93	May-93	May-93	May-93	May-93	May-93	May-93
Chlorobenzene	108-90-7	10.0	34.7	Type 4	34.7	Type 4		1.4 U	2.4 U	0.013 U	0.012 U	**5.4**	1.5 U	1.6 U		12 U		6 U	12
Chloroethane	75-00-3	1.00	1182	Type 4	1182	Type 4													
Chloroform	67-66-3		N	N	N	N													
Chloromethane	74-87-3		N	N	N	N													
cis-1,2-Dichloroethene	156-59-2	7.00	7.0	Type 3	7.0	Type 3													
cis-1,2-Dichloroethylene	156-59-2	7.00	7.0	Type 3	7.0	Type 3	1.5 U	1.4 U	2.4 U	0.013 U	0.012 U	2.4 U	1.5 U	1.6 U	1.5 U	12 U	0.012 J	6 U	12
Cyclohexane	110-82-7	20.0	3842	Type 4	3842	Type 4													
Dibromochloromethane	124-48-1		N	N	N	N													
Dibromomethane	74-95-3		N	N	N	N													
Dichlorodifluoromethane	75-71-8	46.5	75.0	Type 4	100.0	Type 3													
Ethylbenzene	100-41-4	70.0	128	Type 4	128	Type 4	1.5 U	**0.67**	2.4 U	0.013 U	0.012 U	**6.7**	1.5 U	1.6 U	1.5 U	1.3 J	0.013 U	6 U	12
Hexachlorobutadiene	87-68-3		N	N	N	N													
Isopropylbenzene	98-82-8	21.9	720	Type 4	720	Type 4													
m&p-Xylene	1330-20-7																		
Methylene chloride	75-09-2	0.50	5.05	Type 4	5.05	Type 4	1.5 U	0.23 J	2.4 U	**0.014**	0.012 U	2.4 U	1.5 U	0.3 J	1.5 U	12 U	0.013 U	6 U	12
o-Xylene	1330-20-7																		
Styrene	100-42-5	14.0	1118	Type 4	1118	Type 4													
Tetrachloroethene (PCE)	127-18-4	0.50	0.50	Type 3	9.41	Type 4	0.46 J	**19**	0.73 J	0.013 U	0.012 U	2.4 U	1.5 U	1.6 U	1.5 U	**150**	**0.013**	2.5 J	3.9
Tetrachloroethylene	127-18-4	0.50	0.50	Type 3	9.41	Type 4													
Toluene	108-88-3	100	100	Type 3	676	Type 4	1.5 U	24 J	**6.2**	0.004 J	0.002 J	**30**	1.5 U	1.6 U	0.31 J	**17**	0.003 J	2.2 J	**58**
trans-1,2-Dichloroethene	156-60-5	10.0	10.0	Type 3	10.0	Type 3													
1,3-Dichloropropene (trans-1,3-Dichloropropene)	542-75-6		N	N	N	N													
Trichloroethene (TCE)	79-01-6	0.50	0.50	Type 3	0.50	Type 3	1.5 U	0.35 J	2.4 U	0.013 U	0.001 J	2.4 U	1.5 U	1.6 U	1.5 U	**570** D	**0.014**	4.3 J	**14**
Trichloroethylene	79-01-6	0.50	0.50	Type 3	0.50	Type 3													
Trichlorofluoromethane	75-69-4		N	N	N	N													
Vinyl Chloride	75-01-4	0.20	0.20	Type 3	0.20	Type 3													
Xylene (total)	1330-20-7	1,000	1575	Type 4	1575	Type 4	1.5 U	**5.5**	0.8 J	0.013 U	0.012 U	**36**	1.5 U	1.6 U	1.5 U	7.9 J	0.002 J	2.4 J	5.4
Pesticides - mg/kg																			
4,4' -DDD	72-54-8	0.660	129	Type 4	129	Type 4		**17** C	**5.8** CP										
4,4' -DDE	72-55-9	0.660	91.4	Type 4	91.4	Type 4		**2.3** C	**0.43** C										
4,4' -DDT	50-29-3	0.660	131	Type 4	131	Type 4		**25** BPC	**8.3** CB										
Aldrin	309-00-2	0.660	3.37	Type 4	55.78	Type 4		0.2 U	0.054 U			**0.0027** JP							
alpha-Endosulfan (Endosulfan I)	959-98-8	10.0	3890	Type 4	3890	Type 4		0.2 U	0.054 U										
alpha-BHC	319-84-6	0.660	1.92	Type 4	1.92	Type 4		0.042 JP	0.054 U			**0.0052** P							
beta-BHC	319-85-7	0.660	1.92	Type 4	1.92	Type 4		0.2 U	0.054 U			0.0042 U							
beta-Endosulfan (Endosulfan II)	33213-65-9	10.0	3890	Type 4	3890	Type 4		0.39 U	0.11 U			0.0077 J							
gamma-Chlordane	57-74-9	9.20	27.0	Type 4	27.0	Type 4													
Chlordane	57-74-9	9.20	27.0	Type 4	27.0	Type 4													
delta-BHC	319-86-8	25.0	25.0	Type 3	25.0	Type 3		0.2 U	0.00083 J										
Dieldrin (delta-Benzenehexachloride)	60-57-1	0.660	0.66	Type 3	0.66	Type 3		0.39 U	0.033 JB										
Endosulfan sulfate	1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4		0.39 U	0.11 U			0.0082 U							
Endrin	72-20-8	10.0	247	Type 4	247	Type 4		0.39 U	0.11 U			0.0082 U							
Endrin ketone	72-20-8	10.0	119.33	Type 4	119.33	Type 4		0.39 U	0.11 U			0.0082 U							
Endrin aldehyde	7421-93-4	10.0	40.23	Type 4	40.23	Type 4													
Heptachlor	76-44-8		N	N	N	N		0.2 U	0.054 U			0.0042 U							
Heptachlor epoxide	1024-57-3	1.64	1.65	Type 3	1.65	Type 3		0.2 U	0.054 U			**0.0028** JPB							
Lindane	58-89-9	0.660	0.68	Type 4	0.68	Type 4													
Methoxychlor	72-43-5	10.0	5498	Type 4	5498	Type 4		2 U	0.54 U			0.0042 U							
Toxaphene	8001-35-2		N	N	N	N		20 U	5.4 U			0.42 U							
Polychlorinated biphenyls (PCBs) - mg/kg																			
PCB-1221	11104-28-2		N	N	N	N													
PCB-1232	11141-16-5		N	N	N	N													
PCB-1242	53469-21-9		N	N	N	N													
PCB-1248	12672-29-6		N	N	N	N													
PCB-1254	11097-69-1		N	N	N	N													
PCB-1260	11096-82-5	1.55	3.5	Type 4	69.9	Type 4													

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis
D Reported concentration is for the more diluted of two analyses.
(yellow) Denotes concentration above the higher of the Type 3 or Type 4 RRS
(tan) Denotes concentration above the Type 1 RRS (delineation standard)
(blue) Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
(green) Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.
(dark blue) Denotes sample was collected at or beneath the groundwater table.
N Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ERM Review of Environmental Conditions Report (1993 Data)																																			
	Location		Type 1	Non-Residential RRS					B-11		B-12		B-13		B-14		B-15		B-15		B-16		B-16		B-17		B-18		B-18		B-19	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')			(3-5ft)		(3-5ft)		(8-10ft)		(8-10ft)		(8-10ft)		(13-15ft)		(8-10ft)		(13-15ft)		(13-15ft)		(8-10ft)		(13-15ft)		(8-10ft)	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93	
Semivolatiles- mg/kg																																			
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4										10	U			1	U					1	U			10	U
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	2.6	J
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4										25				1	U					1	U			10	U
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U	4.2	U	2.1	U	0.19	J	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	1.4	J
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4																									
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4	U	0.43	U	0.42	U	0.062	J	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4										4.2	U			0.41	U					0.41	U			4.1	U
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4	U	0.43	U	0.42	U	0.11	J	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4	U	0.43	U	0.42	U	0.07	J	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4	U	0.43	U	0.42	U	0.048	J	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3	U	0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4	J	0.16	J	0.074	J	0.18	J	0.091	U	4.2	U	0.79	J	0.41	U	0.35	U	0.051	J	0.41	U	0.24	J	4.1	U
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4	U	0.43	U	0.42	U	0.087	J	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4	U	0.43	U	0.42	U	0.68	J	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4	U	0.43	U	0.42	U	0.06	J	0.12	J	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4	U	0.43	U	0.067	J	0.14	J	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U	**8.7**		1.7	J	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4										4.2	U			0.41	U					0.41	U			4.1	U
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	J	0.43	U	0.42	U	0.39	U	0.42	U	**63**	D	**11**		0.048	J	0.43	U	0.42	U	0.41	U	0.44	U	2.4	J
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4	U	0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4										10	U			1	U					1	U			10	U
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4	U	0.43	U	0.15	J	0.57	J	0.42	U	1.8	J	0.53	J	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Phenol		108-95-2	400	400	Type 3	400	Type 3	U	0.43	U	0.42	U	0.39	U	0.42	U	3.2	JD	0.67	J	0.39	J	0.43	U	0.42	U	0.41	U	0.44	U	0.8	J
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4	U	0.43	U	0.043	J	0.12	J	0.42	U	4.2	U	2.1	U	0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
Volatiles-mg/kg																																			
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																									
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	U	**0.013**		0.002	J	0.001	J	0.013	U	12	U	5.9	U	1.5	U	1.4	U	1.6	U	1.6	U	0.012	U	1	J
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4																									
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4																									
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	U	**0.014**		0.013	U	0.012	U	0.013	U	12	U	5.9	U	1.5	U	1.4	U	1.6	U	1.6	U	0.012	U	3	U
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4																									
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4																									
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																									
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	J	0.43	U	0.42	U	0.39	U	0.42	U	**18**	D	**5.8**		0.41	U	0.43	U	0.42	U	0.41	U	0.44	U	4.1	U
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																									
1,2-Dibromoethane		106-93-4		N	N	N	N																									
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	D	**1.8**		0.3	J	0.18	J	0.42	U	**6.3**		**2.6**		0.41	U	0.43	U	0.42	U	0.059	J	0.44	U	**21**	
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4																									
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4																									
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4		0.43	U	0.42	U	0.39	U	0.42	U			2.1	U			0.43	U	0.42	U			0.44	U		
1,3-Dichloropropane		142-28-9		N	N	N	N																									
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	D	0.25	J	0.05	J	0.39	U	0.42	U			0.22	J			0.43	U	0.42	U			0.44	U		
2-Butanone		78-93-3	200	200	Type 3	200	Type 3	U	**0.022**		0.013	U	0.012	U	0.013	U	**15**		5.9	U	1.5	U	1.4	U	1.6	U	1.4	J	0.012	U	3	U
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																									
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3	U	**0.019**		0.013	U	0.012	U	0.013	U			1.6	J			1.4	U	1.6	U			0.007	J		
Acetone		67-64-1	400	400	Type 3	400	Type 3		**0.71**	D	**0.054**		0.012	U	0.067		16	U	**32**		**31**	D	17		**14**		7	U	**0.11**		9.8	U
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	U	0.013	U	0.013	U	0.012	U	0.013	U			5.9	U			1.4	U	1.6	U			0.012	U		
Bromodichloromethane		75-27-4		N	N	N	N																									
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3																									
Bromomethane		74-83-9		N	N	N	N																									
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3																									
Carbon Tetrachloride		56-23-5		N	N	N	N																									

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ERM Review of Environmental Conditions Report (1993 Data)																															
	Location		Type 1	Non-Residential RRS					B-11		B-12		B-13		B-14		B-15		B-15		B-16		B-16		B-17		B-18		B-18		B-19	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')			(3-5ft)		(3-5ft)		(8-10ft)		(8-10ft)		(8-10ft)		(13-15ft)		(8-10ft)		(13-15ft)		(13-15ft)		(8-10ft)		(13-15ft)		(8-10ft)	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	U	0.013	U	0.013	U	0.012	U	0.013	U			5.9	U			1.4	U	1.6	U			0.012	U		
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																								
Chloroform		67-66-3		N	N	N	N																								
Chloromethane		74-87-3		N	N	N	N																								
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																								
cis-1,2-Dichloroethylene		156-59-2	7.00	7.0	Type 3	7.0	Type 3	U	**1.2**	D	0.002	J	0.012	U	0.013	U	12	U	5.9	U	1.5	U	1.4	U	1.6	U	1.6	U	0.012	U	3	U
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																								
Dibromochloromethane		124-48-1		N	N	N	N																								
Dibromomethane		74-95-3		N	N	N	N																								
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																								
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	U	0.004	J	0.013	U	0.012	U	0.013	U	12	U	**0.8**		1.5	U	1.4	U	1.6	U	1.6	U	0.012	U	0.56	J
Hexachlorobutadiene		87-68-3		N	N	N	N																								
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																								
m&p-Xylene		1330-20-7																													
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4	U	**0.16**		**0.029**		0.007	J	0.009	J	12	U	5.9	U	1.5	U	1.4	U	1.6	U	1.6	U	**0.013**		3	U
o-Xylene		1330-20-7																													
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4																								
Tetrachloroethene (PCE)		127-18-4	0.50	0.50	Type 3	9.41	Type 4	J	**0.11**		0.006	J	**0.042**		0.013	U	12	U	5.9	U	1.5	U	0.29	J	1.6	U	1.6	U	**0.036**		55	J
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																								
Toluene		108-88-3	100	100	Type 3	676	Type 4		**0.24**		**0.027**		**0.07**		0.007	J	200		**91**		1.5	U	1.4	U	1.6	U	1.6	U	**0.019**		0.6	J
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																								
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																								
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3		**1**	D	**0.17**		**0.18**		**0.02**		12	U	5.9	U	1.5	U	1.4	U	1.6	U	1.6	U	0.007	J	**3**	
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																								
Trichlorofluoromethane		75-69-4		N	N	N	N																								
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3																								
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	J	**0.022**		0.013	U	0.011	J	0.013	U	8.7	J	**5**		1.5	U	1.4	U	1.6	U	1.6	U	0.006	J	3.2	J
Pesticides - mg/kg																															
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4												0.021	U			0.0043	U								
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4												0.018	J			**0.000088**	JP								
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4												**0.88**	C			**0.00024**	JP								
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4												0.011	U			0.0022	U								
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4												0.011	U			0.0022	U								
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4												**0.0015**	JP			0.0022	U								
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4												0.011	U			**0.00071**	JP								
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4												**0.0032**	JP			0.0043	U								
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																								
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																								
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3												0.011	U			0.0022	U								
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3												**0.0013**	JP			0.0043	U								
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4												0.021	U			0.0043	U								
Endrin		72-20-8	10.0	247	Type 4	247	Type 4												0.021	U			0.0043	U								
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4												0.021	U			0.0043	U								
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4																								
Heptachlor		76-44-8		N	N	N	N												0.011	U			0.051	BJP								
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3												0.011	U			**0.000035**	JP								
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4																								
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4												0.11	U			0.022	U								
Toxaphene		8001-35-2		N	N	N	N												1.1	U			0.22	U								
Polychlorinated biphenyls (PCBs) - mg/kg																															
PCB-1221		11104-28-2		N	N	N	N																								
PCB-1232		11141-16-5		N	N	N	N																								
PCB-1242		53469-21-9		N	N	N	N																								
PCB-1248		12672-29-6		N	N	N	N																								
PCB-1254		11097-69-1		N	N	N	N																								
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4																								

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this do
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associat
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis
D Reported concentration is for the more diluted of two analyses.

Denotes concentration above the higher of the Type 3 or Type 4 RRS
Denotes concentration above the Type 1 RRS (delineation standard)
Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables wh
Denotes sample was collected at or beneath the groundwater table.
N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ERM Review of Environmental Conditions Report (1993 Data)																																	
	Location	CAS NUMBER	Type 1 RRS	Non-Residential RRS				B-19		B-19		B-20		B-20 DUP		B-21		H-2		H-21		H-3		H-4		H-41							
	Depth (feet bgs)			SS Soil (0-2')		SB Soil (>2')		(8-10ft)		(13-15ft)		(13-15ft)		(13-15ft)		(13-15ft)		(36-40in)		(114-118in)		(42-48in)		(24-30")		(48-52")							
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93							
Semivolatiles- mg/kg																																	
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4	0.34	J									25	U	2.1	U	4.2	U	8.2	U	17	U						
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4	0.4	U	0.041	J	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	25	U	1.2	J	4.2	U	8.2	U	17	U						
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4	0.97	U																								
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4	0.4	U	0.046	J	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4	0.072	J	0.043	J	0.43	U	0.42	U	0.41	U	25	U	0.8	J	4.2	U	8.2	U	17	U						
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	14	J	0.22	J	4.2	U	2.2	J	2.5	J						
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4																										
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4	0.4	U																								
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3			0.07	J	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
bis(2-Ethylhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4	0.4	U	0.4	U	**0.5**		0.3	J	0.41	U	2.8	J	2.1	U	4.2	U	8.2	U	17	U						
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4			0.4	U	0.16	J	0.14	J	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4	0.15	J	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	6.7	J	2.1	U	0.51	J	2	J	1.9	J						
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4	0.4	U																								
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	0.13	J	0.4	U	0.43	U	0.42	U	0.41	U	**160**		1.7	J	**6.3**		**33**		**78**							
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	**19**	J	2.1	U	4.2	U	8.2	U	17	U						
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4	0.05	J																								
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	6	J	2.1	U	4.2	U	8.2	U	17	U						
Phenol		108-95-2	400	400	Type 3	400	Type 3	0.4	U	0.079	J	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	25	U	2.1	U	4.2	U	8.2	U	17	U						
Volatiles-mg/kg																																	
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																										
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	1.5	U	1.6	U	0.013	U	0.013	U	0.013	U	5.3	U	1.5	U	1.5	U	1.6	U	1.5	U						
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4																										
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4																										
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	1.5	U	1.6	U	0.013	U	0.013	U	0.013	U	5.3	U	1.5	U	1.5	U	1.6	U	1.5	U						
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4																										
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4																										
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																										
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	0.4	U	0.4	U	0.43	U	0.42	U	0.41	U	**220**	D	**11**		4.2	U	8.2	U	17	U						
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																										
1,2-Dibromoethane		106-93-4		N	N	N	N																										
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	**0.71**		0.4	U	0.43	U	0.42	U	0.41	U	**280**	D	**26**	D	4.2	U	8.2	U	17	U						
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4																										
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4																										
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	**35**		**2.1**		4.2	U	8.2	U	17	U						
1,3-Dichloropropane		142-28-9		N	N	N	N																										
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4			0.4	U	0.43	U	0.42	U	0.41	U	**63**		**4.6**		4.2	U	8.2	U	17	U						
2-Butanone		78-93-3	200	200	Type 3	200	Type 3	1.5	U	1.6	U	0.013	U	0.013	U	0.013	U	5.3	U	0.75	J	1.5	U	0.95	J	1.5	U						
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																										
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3			1.6	U	0.013	U	0.013	U	0.013	U	5.3	U	1.5	U	1.5	U	1.6	U	1.5	U						
Acetone		67-64-1	400	400	Type 3	400	Type 3	12	J	**20**		0.023	U	0.006	J	0.007	J	**6.6**		**26**		1.5	U	1.3	J	0.44	J						
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4			1.6	U	0.013	U	0.013	U	0.013	U	5.3	U	1.5	U	1.5	U	1.6	U	1.5	U						
Bromodichloromethane		75-27-4		N	N	N	N																										
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3																										
Bromomethane		74-83-9		N	N	N	N																										
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3																										
Carbon Tetrachloride		56-23-5		N	N	N	N																										

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ERM Review of Environmental Conditions Report (1993 Data)																							
	Location	CAS NUMBER	Type 1 RRS (mg/kg)	Non-Residential RRS				B-19		B-19		B-20		B-20 DUP		B-21		H-2		H-21		H-3		H-4		H-41	
	Depth (feet bgs)			SS Soil (0-2')		SB Soil (>2')		(8-10ft)		(13-15ft)		(13-15ft)		(13-15ft)		(13-15ft)		(36-40in)		(114-118in)		(42-48in)		(24-30")		(48-52")	
Constituent	Date Sampled			RRS	RRS Type	RRS	RRS Type	May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93		May-93	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4			1.6	U	0.013	U	0.013	U	0.013	U	5.3	U	1.5	U	1.5	U	1.6	U	1.5	U
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																				
Chloroform		67-66-3		N	N	N	N																				
Chloromethane		74-87-3		N	N	N	N																				
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																				
cis-1,2-Dichloroethylene		156-59-2	7.00	7.0	Type 3	7.0	Type 3	1.5	U	1.6	U	0.013	U	0.013	U	0.013	U	530	U	1.5	U	1.5	U	1.6	U	1.5	U
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																				
Dibromochloromethane		124-48-1		N	N	N	N																				
Dibromomethane		74-95-3		N	N	N	N																				
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																				
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	1.5	U	1.6	U	0.013	U	0.013	U	0.013	U	**5.3**		1.5	U	1.5	U	1.6	U	1.5	U
Hexachlorobutadiene		87-68-3		N	N	N	N																				
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																				
m&p-Xylene		1330-20-7																									
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4	1.5	U	1.6	U	0.008	J	0.003	J	0.004	J	0.61	J	1.5	U	0.21	J	1.6	U	1.5	U
o-Xylene		1330-20-7																									
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4																				
Tetrachloroethene (PCE)		127-18-4	0.50	0.50	Type 3	9.41	Type 4	4.5	J	**3.2**		0.013	U	0.013	U	0.013	U	**20**		1.5	U	1.5	U	1.6	U	1.5	U
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																				
Toluene		108-88-3	100	100	Type 3	676	Type 4	1.5	J	1.6	U	0.003	J	0.013	U	0.013	U	**85**		1.5	U	0.33	J	1.6	U	1.5	U
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																				
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																				
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3	0.39	J	1.6	U	0.002	J	0.013	U	0.013	U	0.86	J	1.5	U	1.5	U	1.6	U	1.5	U
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																				
Trichlorofluoromethane		75-69-4		N	N	N	N																				
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3																				
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	0.25	J	1.6	U	0.013	U	0.013	U	0.013	U	**45**		1.5	U	1.5	U	1.6	U	0.25	J
Pesticides - mg/kg																											
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4			0.00061	B	0.000049	B														
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4			0.0032	J	0.0042	U														
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4			0.004	U	0.0042	U														
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4			0.002	U	0.0022	U														
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4			**0.00051**	JP	0.0022	U														
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4			**0.000049**	JP	0.0022	U														
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4			0.002	U	0.0022	U														
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4			**0.00011**	JP	0.0042	U														
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																				
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																				
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3			0.002	U	0.0022	U														
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3			0.004	U	0.0042	U														
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4			0.004	U	0.0042	U														
Endrin		72-20-8	10.0	247	Type 4	247	Type 4			0.004	U	0.0042	U														
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4			0.004	U	0.0042	U														
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4																				
Heptachlor		76-44-8		N	N	N	N			0.002	U	0.0022	U														
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3			**0.00096**	JP	**0.0003**	JP														
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4																				
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4			0.02	U	0.022	U														
Toxaphene		8001-35-2		N	N	N	N			0.2	U	0.22	U														
Polychlorinated biphenyls (PCBs) - mg/kg																											
PCB-1221		11104-28-2		N	N	N	N																				
PCB-1232		11141-16-5		N	N	N	N																				
PCB-1242		53469-21-9		N	N	N	N																				
PCB-1248		12672-29-6		N	N	N	N																				
PCB-1254		11097-69-1		N	N	N	N																				
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4																				

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this do
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associat
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis
D Reported concentration is for the more diluted of two analyses.

Denotes concentration above the higher of the Type 3 or Type 4 RRS
Denotes concentration above the Type 1 RRS (delineation standard)
Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables wh
Denotes sample was collected at or beneath the groundwater table.
N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

CSR Summary Table 3 (Jan. 6, 1999 GeoProbe Data)																				
	Location	CAS NUMBER	Type 1	Non-Residential RRS				DP-1	DP-2	DP-2	DP-3	DP-4	DP-5	DP-6	DP-6	DP-7	DP-8	DP-8	DP-9	DP-9	DP-10
	Depth (feet bgs)		RRS	SS Soil (0-2')		SB Soil (>2')		5-6	5-6	13-14	5-6	5-6	5 - 6	5 - 6	15-16	5 - 6	5 - 6	14-15	5-6	16-17	6-7
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999
Semivolatiles- mg/kg																				
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4													
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4													
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4													
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4													
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4													
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4													
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4													
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4													
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4													
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4													
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4													
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4													
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4													
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4													
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4													
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3													
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4													
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4													
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4													
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4													
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4													
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4													
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4													
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4													
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.013**
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4													
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4													
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4													
Phenol		108-95-2	400	400	Type 3	400	Type 3													
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4													
Volatiles-mg/kg																				
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	ND	ND	**0.16326**	ND	ND	ND	ND	ND	ND	ND	**0.018**	ND	ND	ND
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	ND	ND	**0.7465**	ND	ND	ND	ND	ND	ND	**0.014**	**0.086**	**0.048**	**0.035**	**0.037**
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	ND	ND	**0.0632**	ND	ND	ND	ND	ND	ND	**0.01**	**0.014**	ND	ND	**0.078**
1,1-Dichloroethylene	(DCE)	75-35-4	0.70	1.21	Type 4	24.27	Type 4														
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	ND	ND	ND	**0.119**	ND	ND	ND	ND	ND	**0.013**	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane		106-93-4		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	ND	**0.023**	**0.3962**	ND	ND	ND	ND	ND	ND	ND	ND	**0.033**	ND	ND
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4	ND	ND	**0.3227**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane		142-28-9		N	N	N	N						ND	ND		ND					
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	ND	ND	**0.3078**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone		78-93-3	200	200	Type 3	200	Type 3														
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3														
Acetone		67-64-1	400	400	Type 3	400	Type 3	ND	ND		ND	ND	ND	ND		ND	ND		ND		ND
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane		75-27-4		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.042**
Bromomethane		74-83-9		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3														
Carbon Tetrachloride		56-23-5		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

CSR Summary Table 3 (Jan. 6, 1999 GeoProbe Data)																			
	Location		Type 1	Non-Residential RRS				DP-1	DP-2	DP-2	DP-3	DP-4	DP-5	DP-6	DP-6	DP-7	DP-8	DP-8	DP-9	DP-9	DP-10
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		5-6	5-6	13-14	5-6	5-6	5 - 6	5 - 6	15-16	5 - 6	5 - 6	14-15	5-6	16-17	6-7
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999	1/6/1999
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	ND	**0.065**	**0.1187**	ND	ND	ND	ND	ND	**0.074**	ND	ND	ND	ND	ND
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4	ND	ND	**0.2004**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform		67-66-3		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Chloromethane		74-87-3		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene		156-59-2	7.00																		
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4														
Dibromochloromethane		124-48-1		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Dibromomethane		74-95-3		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3	ND	ND	**0.0503**	ND	ND	ND	ND	ND	ND	ND	**0.018**	**0.025**	ND	ND
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	ND	ND	**0.0524**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.051**
Hexachlorobutadiene		87-68-3		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.01**	ND	ND	**0.04**
m&p-Xylene		1330-20-7						ND	ND	**0.0721**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.132**
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene		1330-20-7						ND	ND	**0.0221**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.035**
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4	ND	ND	**0.0216**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.03**
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	ND	ND	**0.5549**	ND	ND	ND	ND	ND	ND	ND	**0.012**	**0.018**	**0.012**	**0.028**
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4														
Toluene		108-88-3	100	100	Type 3	676	Type 4	ND	ND	**0.019**	ND	ND	ND	ND	ND	ND	ND	**0.011**	ND	ND	ND
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.03**	ND	**0.01**
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3	ND	ND	**0.2053**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.027**	ND
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3														
Trichlorofluoromethane		75-69-4		N	N	N	N	ND	ND	ND	ND	ND			ND			ND	ND	ND	ND
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3	ND	ND	**0.0592**	ND	ND	ND	ND	ND	ND	**0.011**	ND	ND	ND	ND
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	ND	ND	**0.0942**	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	**0.167**
Pesticides - mg/kg																					
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4	ND	ND	**0.021**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4														
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4	ND	ND	**0.022**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin		72-20-8	10.0	247	Type 4	247	Type 4	ND	ND	**0.259**	ND	ND	**23.5**	ND	ND	ND	ND	ND	ND	ND	ND
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4	ND	ND	**0.025**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4	ND	ND	**0.165**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor		76-44-8		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4	ND	ND	**0.056**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene		8001-35-2		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated biphenyls (PCBs) - mg/kg																					
PCB-1221		11104-28-2		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232		11141-16-5		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242		53469-21-9		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248		12672-29-6		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254		11097-69-1		N	N	N	N	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4	ND	ND	**3.21**	ND	ND	**0.245**	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

NA Not Analyzed

NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.

? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point

U Analyte undetected at detection limit shown

J Dectected below the sample quantitation limit of instrument

B Analyte also detected in blanks

P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.

Denotes concentration above the Type 1 RRS (delineation standard)

Denotes non-detect value above the higher of the Type 3 or Type 4 RRS

Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.

Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.

Denotes sample was collected at or beneath the groundwater table.

N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

CSR Summary Table 3 (Jan 2002 Data)											
	Location		Type 1	Non-Residential RRS				SB-22	SB-22	SB-22	SB-22
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		0 - 2	2 - 4	4 - 6	6 - 8
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/22/2002	1/22/2002	1/22/2002	1/22/2002
Semivolatiles- mg/kg											
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4				
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4				
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4				
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4				
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4				
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4				
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4				
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4				
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4				
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4				
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4				
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4				
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4				
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4				
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4				
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3				
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4				
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4				
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4				
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4				
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4				
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4				
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4				
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4				
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	ND	ND	ND	ND
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4				
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4				
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4				
Phenol		108-95-2	400	400	Type 3	400	Type 3				
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4				
Volatiles-mg/kg											
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4				
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4				
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4				
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	ND	**0.00176**	ND	ND
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	**0.00288**	**0.00541**	**0.00194**	ND
1,1-Dichloroethylene	(DCE)	75-35-4	0.70	1.21	Type 4	24.27	Type 4				
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3				
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3				
1,2-Dibromoethane		106-93-4		N	N	N	N				
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	**0.115**	**0.03747**	**0.09688**	ND
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4				
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4				
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4				
1,3-Dichloropropane		142-28-9		N	N	N	N				
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	ND	ND	**0.00381**	ND
2-Butanone		78-93-3	200	200	Type 3	200	Type 3				
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N				
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3				
Acetone		67-64-1	400	400	Type 3	400	Type 3	ND	ND	**0.07312**	ND
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	ND	**0.00171**	ND	ND
Bromodichloromethane		75-27-4		N	N	N	N				
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3	ND	ND	ND	ND
Bromomethane		74-83-9		N	N	N	N				
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3				
Carbon Tetrachloride		56-23-5		N	N	N	N				

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

CSR Summary Table 3 (Jan 2002 Data)								SB-22	SB-22	SB-22	SB-22
	Location		Type 1	Non-Residential RRS				SB-22	SB-22	SB-22	SB-22
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		0 - 2	2 - 4	4 - 6	6 - 8
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/22/2002	1/22/2002	1/22/2002	1/22/2002
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	**0.04906**	**0.04518**	**0.07812**	ND
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4	**0.00269**	**0.00359**	ND	ND
Chloroform		67-66-3		N	N	N	N				
Chloromethane		74-87-3		N	N	N	N				
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3	**0.02388**	**0.03882**	**0.01562**	ND
cis-1,2-Dichloroethylene		156-59-2	7.00								
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4				
Dibromochloromethane		124-48-1		N	N	N	N				
Dibromomethane		74-95-3		N	N	N	N				
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3	NP	NP	NP	NP
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	**0.00294**	ND	**0.00444**	ND
Hexachlorobutadiene		87-68-3		N	N	N	N				
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4	NP	NP	NP	NP
m&p-Xylene		1330-20-7						NA	NP	NP	NP
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4	NP	NP	NP	NP
o-Xylene		1330-20-7						NA	NP	NP	NP
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4	NP	NP	NP	NP
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	ND	ND	ND	ND
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4				
Toluene		108-88-3	100	100	Type 3	676	Type 4	**0.01744**	**0.00788**	**0.00338**	ND
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3	ND	**0.00212**	ND	ND
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N				
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3	ND	**0.00118**	ND	ND
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3				
Trichlorofluoromethane		75-69-4		N	N	N	N				
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3	**0.00275**	**0.00441**	**0.004**	ND
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	**0.0099**	**0.00102**	**0.00115**	ND
Pesticides - mg/kg											
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4				
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4				
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4				
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4				
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4				
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4				
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4				
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4				
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4				
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4				
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3				
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3				
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4				
Endrin		72-20-8	10.0	247	Type 4	247	Type 4				
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4				
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4				
Heptachlor		76-44-8		N	N	N	N				
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3				
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4				
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4				
Toxaphene		8001-35-2		N	N	N	N				
Polychlorinated biphenyls (PCBs) - mg/kg											
PCB-1221		11104-28-2		N	N	N	N				
PCB-1232		11141-16-5		N	N	N	N				
PCB-1242		53469-21-9		N	N	N	N				
PCB-1248		12672-29-6		N	N	N	N				
PCB-1254		11097-69-1		N	N	N	N				
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4				

Notes:

NA Not Analyzed

NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.

? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point

U Analyte undetected at detection limit shown

J Dectected below the sample quantitation limit of instrument

B Analyte also detected in blanks

P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.

Denotes concentration above the Type 1 RRS (delineation standard)

Denotes non-detect value above the higher of the Type 3 or Type 4 RRS

Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.

Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.

Denotes sample was collected at or beneath the groundwater table.

N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC March 2002 Sample Event																													
	Location		Type 1	Non-Residential RRS				B-1-02A		B-1-02B		B-5-02A		B-6-02A		B-7-02A		B-8-02A		B-8-02B		B-10-02A		B-12-02A		B-12-02B	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		?2-4'		?4-6'		?2-4'		?2-4'		?2-4'		?2-4'		?4-6'		?2-4'		?2-4'		?4-6'	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	3/30/2002		3/30/2002		3/12/2002		3/12/2002		3/12/2002		3/12/2002		3/12/2002		3/12/2002		3/12/2002		3/12/2002	
Semivolatiles- mg/kg																													
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4																						
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4	1.70	U	1.70	U	830	U	17.0	U	1.70	U	1.70	U	33	U	83	U	17.0	U	33	U
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4																				
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4																				
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	0.33	U	0.33	U	**690**		3.3	U	0.33	U	0.33	U	6.7	U	**59**		**25**		6.7	U
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4	0.67	U	0.67	U	330	U	6.7	U	6.7	U	6.7	U	13	U	33	U	6.7	U	13	U
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Phenol		108-95-2	400	400	Type 3	400	Type 3	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
Volatiles-mg/kg																													
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																				
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4																				
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																				
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	0.330	U	0.33	U	**920**		3.3	U	0.33	U	0.33	U	**26**		**64**		**20**		6.7	U
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																				
1,2-Dibromoethane		106-93-4		N	N	N	N																				
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	0.33	U	0.33	U	**410**		3.3	U	0.33	U	0.33	U	6.7	U	**60**		**5.7**		6.7	U
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
1,3-Dichloropropane		142-28-9		N	N	N	N																				
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	0.33	U	0.33	U	170	U	3.3	U	0.33	U	0.33	U	6.7	U	17	U	3.3	U	6.7	U
2-Butanone		78-93-3	200	200	Type 3	200	Type 3																				
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																				
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3																				
Acetone		67-64-1	400	400	Type 3	400	Type 3	0.049	U	0.05	U	25.0	U	0.05	U	0.05	U	0.046	U	25	U	25	U	25	U	25	U
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
Bromodichloromethane		75-27-4		N	N	N	N	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	0.005	U
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U
Bromomethane		74-83-9		N	N	N	N	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	0.005	U
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3																				
Carbon Tetrachloride		56-23-5		N	N	N	N	0.005	U	0.005	U	2.5	U	0.005	U	0.005	U	0.005	U	2.5	U	2.5	U	2.5	U	2.5	U

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	Location / Depth (feet bgs) / Date Sampled	CAS NUMBER	ESC March 2002 Sample Event: Type 1 RRS (mg/kg)	Non-Residential RRS: SS Soil (0-2') RRS	SS Soil (0-2') RRS Type	SB Soil (>2') RRS	SB Soil (>2') RRS Type	B-1-02A ?2-4' 3/30/2002	B-1-02B ?4-6' 3/30/2002	B-5-02A ?2-4' 3/12/2002	B-6-02A ?2-4' 3/12/2002	B-7-02A ?2-4' 3/12/2002	B-8-02A ?2-4' 3/12/2002	B-8-02B ?4-6' 3/12/2002	B-10-02A ?2-4' 3/12/2002	B-12-02A ?2-4' 3/12/2002	B-12-02B ?4-6' 3/12/2002
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform		67-66-3		N	N	N	N	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane		74-87-3		N	N	N	N	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3										
cis-1,2-Dichloroethylene		156-59-2	7.00														
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4										
Dibromochloromethane		124-48-1		N	N	N	N	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromomethane		74-95-3		N	N	N	N										
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3										
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	**5.1**	2.5 U	2.5 U
Hexachlorobutadiene		87-68-3		N	N	N	N	0.33 U	0.33 U	170 U	3.3 U	0.33 U	0.33 U	6.7 U	17 U	3.3 U	6.7 U
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4										
m&p-Xylene		1330-20-7															
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4	0.01 U	0.01 U	5.0 U	0.01 U	0.01 U	0.01 U	5 U	5 U	5 U	5 U
o-Xylene		1330-20-7															
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4										
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	**0.0061**	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4										
Toluene		108-88-3	100	100	Type 3	676	Type 4	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	**180**	**2.5**	2.5 U
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3										
Trichlorofluoromethane		75-69-4		N	N	N	N										
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3	0.005 U	0.005 U	2.5 U	0.005 U	0.005 U	0.005 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	0.015 U	0.015 U	7.5 U	0.015 U	0.015 U	0.014 U	7.5 U	**40**	7.5 U	7.5 U
Pesticides - mg/kg																	
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4										
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4										
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4										
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4										
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4										
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4										
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4										
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4										
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4										
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4										
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3										
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3										
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4										
Endrin		72-20-8	10.0	247	Type 4	247	Type 4										
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4										
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4										
Heptachlor		76-44-8		N	N	N	N										
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3										
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4										
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4										
Toxaphene		8001-35-2		N	N	N	N										
Polychlorinated biphenyls (PCBs) - mg/kg																	
PCB-1221		11104-28-2		N	N	N	N										
PCB-1232		11141-16-5		N	N	N	N										
PCB-1242		53469-21-9		N	N	N	N										
PCB-1248		12672-29-6		N	N	N	N										
PCB-1254		11097-69-1		N	N	N	N										
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4										

Notes:

NA Not Analyzed

NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.

? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point

U Analyte undetected at detection limit shown

J Dectected below the sample quantitation limit of instrument

B Analyte also detected in blanks

P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.

Denotes concentration above the Type 1 RRS (delineation standard)

Denotes non-detect value above the higher of the Type 3 or Type 4 RRS

Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.

Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.

Denotes sample was collected at or beneath the groundwater table.

N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC January 2003 Sampling Event																															
	Location		Type 1	Non-Residential RRS				B-14-03A		B-14-03B		B-14-03C		B-14-03D		B-15-03A		B-15-03B		B-15-03C		B-15-03D		B-16-03A		B-16-03B		B-17-03A		B-17-03B		B-17-03C		B-17-03D	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2'-4'		4'-6'		8'-10'		12'-14'		2'-4'		4'-6'		8'-10'		12'-14'		4'-6'		8'-10'		2'-4'		4'-6'		8'-10'		12'-14'	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003	
Semivolatiles- mg/kg																																	
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4																										
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4																										
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4																										
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4																										
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4																										
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4																										
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4																										
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4																										
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4																										
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4																										
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4																										
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4																										
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4																										
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4																										
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4																										
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3																										
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4	6.7	U	6.7	U	0.33	U	1.7	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4																										
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4																										
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4																										
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4																										
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4																										
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4																										
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4																										
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	6.7	U	6.7	U	0.33	U	1.7	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4																										
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4																										
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4	6.7	U	6.7	U	0.33	U	1.7	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
Phenol		108-95-2	400	400	Type 3	400	Type 3																										
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4																										
Volatiles-mg/kg																																	
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																										
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	0.005	U	0.0071	U	0.0069	U	0.0062	U	0.0063	U	0.012	U	0.0061	U	0.0074	U	0.0055	U	0.0051	U	0.005	U	0.0064	U	0.011	U	0.0052	U
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4																										
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4																										
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	0.005	U	0.0071	U	0.0069	U	0.0062	U	0.0063	U	0.012	U	0.0061	U	0.0074	U	0.0055	U	0.0051	U	0.005	U	0.0064	U	0.011	U	0.0052	U
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.005	U	0.0071	U	0.0069	U	0.0062	U	0.0063	U	0.012	U	0.0061	U	0.0074	U	0.0055	U	0.0051	U	0.005	U	0.0064	U	0.011	U	0.0052	U
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.005	U	0.0071	U	0.0069	U	0.0062	U	0.0063	U	0.012	U	0.0061	U	0.0074	U	0.0055	U	0.0051	U	0.005	U	0.0064	U	0.011	U	0.0052	U
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																										
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	6.7	U	6.7	U	0.33	U	1.7	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																										
1,2-Dibromoethane		106-93-4		N	N	N	N																										
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	6.7	U	6.7	U	0.33	U	1.7	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4	0.005	U	0.0071	U	0.0069	U	0.0062	U	0.0063	U	0.012	U	0.0061	U	0.0074	U	0.0055	U	0.0051	U	0.005	U	0.0064	U	0.011	U	0.0052	U
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4																										
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4																										
1,3-Dichloropropane		142-28-9		N	N	N	N																										
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4																										
2-Butanone		78-93-3	200	200	Type 3	200	Type 3																										
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																										
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3																										
Acetone		67-64-1	400	400	Type 3	400	Type 3	0.05	U	0.0071	U	**0.076**		0.062	U	0.063	U	0.12	U	0.061	U	0.074	U	0.055	U	0.051	U	0.05	U	**0.064**		0.11	U	0.052	U
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	0.005	U	0.0071	U	0.0069	U	0.0062	U	0.0063	U	0.012	U	0.0061	U	0.0074	U	0.0055	U	0.0051	U	0.005	U	0.0064	U	0.011	U	0.0052	U
Bromodichloromethane		75-27-4		N	N	N	N																										
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3																										
Bromomethane		74-83-9		N	N	N	N																										
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3																										
Carbon Tetrachloride		56-23-5		N	N	N	N																										

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC January 2003 Sampling Event																					
Location		Type 1	Non-Residential RRS				B-14-03A	B-14-03B	B-14-03C	B-14-03D	B-15-03A	B-15-03B	B-15-03C	B-15-03D	B-16-03A	B-16-03B	B-17-03A	B-17-03B	B-17-03C	B-17-03D
Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2'-4'	4'-6'	8'-10'	12'-14'	2'-4'	4'-6'	8'-10'	12'-14'	4'-6'	8'-10'	2'-4'	4'-6'	8'-10'	12'-14'
Constituent / Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003
Chlorobenzene	108-90-7	10.0	34.7	Type 4	34.7	Type 4	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	0.005 U	0.0064 U	0.011 U	0.0052 U
Chloroethane	75-00-3	1.00	1182	Type 4	1182	Type 4														
Chloroform	67-66-3		N	N	N	N	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	0.005 U	0.0064 U	0.011 U	0.0052 U
Chloromethane	74-87-3		N	N	N	N														
cis-1,2-Dichloroethene	156-59-2	7.00	7.0	Type 3	7.0	Type 3														
cis-1,2-Dichloroethylene	156-59-2	7.00	7.0	Type 3	7.0	Type 3	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	0.005 U	**0.1**	0.011 U	0.0052 U
Cyclohexane	110-82-7	20.0	3842	Type 4	3842	Type 4														
Dibromochloromethane	124-48-1		N	N	N	N														
Dibromomethane	74-95-3		N	N	N	N														
Dichlorodifluoromethane	75-71-8	46.5	75.0	Type 4	100.0	Type 3														
Ethylbenzene	100-41-4	70.0	128	Type 4	128	Type 4	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	0.005 U	0.0064 U	0.011 U	0.0052 U
Hexachlorobutadiene	87-68-3		N	N	N	N														
Isopropylbenzene	98-82-8	21.9	720	Type 4	720	Type 4														
m&p-Xylene	1330-20-7																			
Methylene chloride	75-09-2	0.50	5.05	Type 4	5.05	Type 4	0.01 U	0.014 U	0.014 U	0.012 U	0.013 U	0.024 U	0.012 U	0.015 U	0.011 U	0.01 U	0.01 U	0.013 U	0.023 U	0.01 U
o-Xylene	1330-20-7																			
Styrene	100-42-5	14.0	1118	Type 4	1118	Type 4														
Tetrachloroethene (PCE)	127-18-4	0.50	0.5	Type 3	9.41	Type 4	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	**0.022**	**0.17**	**0.058**	**0.0081**
Tetrachloroethylene	127-18-4	0.50	0.50	Type 3	9.41	Type 4														
Toluene	108-88-3	100	100	Type 3	676	Type 4	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	0.005 U	0.0064 U	0.011 U	0.0052 U
trans-1,2-Dichloroethene	156-60-5	10.0	10.0	Type 3	10.0	Type 3														
1,3-Dichloropropene (trans-1,3-Dichloropropene)	542-75-6		N	N	N	N														
Trichloroethene (TCE)	79-01-6	0.50	0.50	Type 3	0.50	Type 3	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	**0.0046**	**0.052**	0.011 U	0.0052 U
Trichloroethylene	79-01-6	0.50	0.50	Type 3	0.50	Type 3														
Trichlorofluoromethane	75-69-4		N	N	N	N														
Vinyl Chloride	75-01-4	0.20	0.20	Type 3	0.20	Type 3	0.005 U	0.0071 U	0.0069 U	0.0062 U	0.0063 U	0.012 U	0.0061 U	0.0074 U	0.0055 U	0.0051 U	0.005 U	0.0064 U	0.011 U	0.0052 U
Xylene (total)	1330-20-7	1,000	1575	Type 4	1575	Type 4	0.015 U	0.021 U	0.021 U	0.019 U	0.019 U	0.036 U	0.018 U	0.022 U	0.017 U	0.015 U	0.015 U	0.019 U	0.034 U	0.016 U
Pesticides - mg/kg																				
4,4' -DDD	72-54-8	0.660	129	Type 4	129	Type 4	**0.17**	**0.13**	0.0017 U	**0.009**	**0.15**	**0.069**	**0.43**	**0.0028**	**120**	**14**	**0.0021**	**0.011**	0.0017 U	0.0017 U
4,4' -DDE	72-55-9	0.660	91.4	Type 4	91.4	Type 4	**0.091**	**0.051**	0.0017 U	**0.0069**	**0.21**	**0.12**	0.083 U	0.0017 U	**4.9**	**0.42**	**0.0038**	**0.058**	0.0017 U	**0.0041**
4,4' -DDT	50-29-3	0.660	131	Type 4	131	Type 4	0.033 U	0.033 U	0.0017 U	**0.0042**	**1.2**	**0.52**	**3.3**	**0.028**	0.33 U	**10**	0.0017 U	0.0083 U	0.0017 U	0.0017 U
Aldrin	309-00-2	0.660	3.37	Type 4	55.78	Type 4												**0.02**	0.0017 U	0.0017 U
alpha-Endosulfan (Endosulfan I)	959-98-8	10.0	3890	Type 4	3890	Type 4														
alpha-BHC	319-84-6	0.660	1.92	Type 4	1.92	Type 4														
beta-BHC	319-85-7	0.660	1.92	Type 4	1.92	Type 4														
beta-Endosulfan (Endosulfan II)	33213-65-9	10.0	3890	Type 4	3890	Type 4														
gamma-Chlordane	57-74-9	9.20	27.0	Type 4	27.0	Type 4	**0.16**	**0.37**	0.017 U	0.033 U	0.33 U	0.033 U	0.83 U	0.017 U	3.3 U	3.3 U	0.017 U	**0.013**	0.0017 U	0.0017 U
Chlordane	57-74-9	9.20	27.0	Type 4	27.0	Type 4	**0.043**	**0.045**	0.0017 U	0.0033 U	0.033 U	0.033 U	0.083 U	0.0017 U	0.33 U	0.33 U	0.0017 U	0.083 U	0.017 U	0.017 U
delta-BHC	319-86-8	25.0	25.0	Type 3	25.0	Type 3														
Dieldrin (delta-Benzenehexachloride)	60-57-1	0.660	0.66	Type 3	0.66	Type 3	0.033 U	0.033 U	0.0017 U	0.0033 U	0.033 U	0.033 U	0.083 U	0.0017 U	0.33 U	0.33 U	0.0017 U	0.0083 U	0.0017 U	0.0017 U
Endosulfan sulfate	1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4														
Endrin	72-20-8	10.0	247	Type 4	247	Type 4														
Endrin ketone	72-20-8	10.0	119.33	Type 4	119.33	Type 4														
Endrin aldehyde	7421-93-4	10.0	40.23	Type 4	40.23	Type 4														
Heptachlor	76-44-8		N	N	N	N	0.033 U	0.033 U	0.0017 U	0.0033 U	0.033 U	0.033 U	0.083 U	0.0017 U	0.33 U	0.33 U	0.0017 U			
Heptachlor epoxide	1024-57-3	1.64	1.65	Type 3	1.65	Type 3														
Lindane	58-89-9	0.660	0.68	Type 4	0.68	Type 4	0.033 U	0.033 U	0.0017 U	0.0033 U	0.033 U	0.033 U	0.083 U	0.0017 U	0.33 U	0.33 U	0.0017 U	0.0083 U	0.0017 U	0.0017 U
Methoxychlor	72-43-5	10.0	5498	Type 4	5498	Type 4														
Toxaphene	8001-35-2		N	N	N	N														
Polychlorinated biphenyls (PCBs) - mg/kg																				
PCB-1221	11104-28-2		N	N	N	N												ND	ND	ND
PCB-1232	11141-16-5		N	N	N	N														
PCB-1242	53469-21-9		N	N	N	N														
PCB-1248	12672-29-6		N	N	N	N														
PCB-1254	11097-69-1		N	N	N	N														
PCB-1260	11096-82-5	1.55	3.5	Type 4	69.9	Type 4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis
(yellow) Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.
(tan) Denotes concentration above the Type 1 RRS (delineation standard)
(blue) Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
(green) Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.
(dark blue) Denotes sample was collected at or beneath the groundwater table.
N Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC January 2003 Sampling Event																					
Location		Type 1	Non-Residential RRS				B-18-03A	B-18-03B	B-18-03C	B-18-03D	B-19-03A	B-19-03B	B-19-03C	B-19-03D	B-19-03E	B-20-03A	B-20-03B	B-21-03A	B-21-03B	B-21-03C	B-21-03D
Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2'-4'	4'-6'	8'-10'	12'-14'	2'-4'	4'-6'	8'-10'	12'-14'	2'-4'	4'-6'	8'-10'	2'-4'	4'-6'	8'-10'	12'-14'
Constituent / Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003	1/30/2003
Semivolatiles- mg/kg																					
2,4,5-Trichlorophenol	95-95-4	400	7305	Type 4	7305	Type 4															
2,4,6-Trichlorophenol	88-06-2	3.00	43.4	Type 4	43.4	Type 4															
2,4-Dichlorophenol	120-83-2	2.00	61.5	Type 4	61.5	Type 4															
2,4-Dimethylphenol	105-67-9	70.0	410	Type 4	410	Type 4															
2,4-Dinitrophenol	51-28-5	3.30	38.5	Type 4	38.5	Type 4															
2-Methylphenol	95-48-7	3.80	327	Type 4	327	Type 4															
4-Methylphenol	106445	3.80	429	Type 4	429	Type 4															
Acenaphthene	83-32-9	300	12355	Type 4	12355	Type 4															
Acenaphthylene	208-96-8	130	84969	Type 4	84969	Type 4															
Anthracene	120-12-7	500	200762	Type 4	100000	Type 4															
Benzo(a)anthracene	56-55-3	5.00	78.4	Type 4	100.6	Type 4															
Benzo(a)pyrene	50-32-8	1.64	7.84	Type 4	46.99	Type 4															
Benzo(b)fluoranthene	205-99-2	5.00	17.0	Type 4	340.8	Type 4															
Benzo(g,h,i)perylene	191-24-2	500	613200	Type 4	100000	Type 4															
Benzo(k)fluoranthene	207-08-9	5.00	496	Type 4	496	Type 4															
bis(2-Chloroisopropyl)ether	108-60-1	171	171	Type 3	171	Type 3															
bis(2-Ethyllhexyl)phthalate	117-81-7	50.0	3260	Type 4	3260	Type 4	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chrysene	218-01-9	330	7839	Type 4	23827	Type 4															
Dibenz(a,h)anthracene	53-70-3	2.05	7.84	Type 4	229.44	Type 4															
Di-n-butylphthalate	84-74-2	400	4771	Type 4	4771	Type 4															
Di-n-octyl phthalate	117840	70.0	23296003	Type 4	100000	Type 4															
Fluoranthene	206-44-0	500	81760	Type 4	90688	Type 4															
Fluorene	86-73-7	360	14995	Type 4	14995	Type 4															
Indeno(1,2,3-cd)pyrene	193-39-5	5.00	78.4	Type 4	1109.2	Type 4															
Naphthalene	91-20-3	100	100	Type 3	100	Type 3	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
N-Nitrosodiphenylamine	86-30-6	6.46	86.7	Type 4	86.7	Type 4															
Pentachlorophenol (PCP)	87-86-5	3.30	12.4	Type 4	12.4	Type 4															
Phenanthrene	85-01-8	110	173352	Type 4	100000	Type 4	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Phenol	108-95-2	400	400	Type 3	400	Type 3															
Pyrene	129-00-0	500	61320	Type 4	66655	Type 4															
Volatiles-mg/kg																					
1,1,1,2-Tetrachloroethane	630-20-6	7.00	9.83	Type 4	9.83	Type 4															
1,1,1-Trichloroethane	71-55-6	20.0	824	Type 4	824	Type 4	0.005 U	0.005 U	0.005 U	0.0087 U	0.008 U	0.0065 U	0.0086 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0056 U	0.0052 U	0.0055 U
1,1,2,2-Tetrachloroethane	79-34-5	0.13	0.14	Type 4	0.14	Type 4															
1,1,2-Trichloroethane	79-00-5	0.50	3.33	Type 4	3.33	Type 4															
1,1-Dichloroethane	75-34-3	400	400	Type 3	400	Type 3	0.005 U	0.005 U	0.005 U	0.0087 U	0.008 U	0.0065 U	0.0086 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0056 U	0.0052 U	0.0055 U
1,1-Dichloroethene	75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.005 U	0.005 U	0.005 U	0.0087 U	0.008 U	0.0065 U	0.0086 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0056 U	0.0052 U	0.0055 U
1,1-Dichloroethylene (DCE)	75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.005 U	0.005 U	0.005 U	0.0087 U	0.008 U	0.0065 U	0.0086 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0056 U	0.0052 U	0.0055 U
1,2,3-Trichloropropane	96-18-4	0.498	1.91	Type 4	4.00	Type 3															
1,2,4-Trichlorobenzene	120-82-1	10.8	10.8	Type 3	38.3	Type 4	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,2-Dibromo-3-Chloropropane	96-12-8	0.02	0.02	Type 3	0.02	Type 3															
1,2-Dibromoethane	106-93-4		N	N	N	N															
1,2-Dichlorobenzene	95-50-1	60.0	60.0	Type 3	231.0	Type 4	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,2-Dichloroethane	107-06-2	0.50	1.45	Type 4	1.45	Type 4	0.005 U	0.005 U	0.005 U	0.0087 U	0.008 U	0.0065 U	0.0086 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0056 U	0.0052 U	0.0055 U
1,2-Dichloropropane	78-87-5	0.50	0.53	Type 4	0.53	Type 4															
1,3-Dichlorobenzene	541-73-1	60.0	369	Type 4	369	Type 4															
1,3-Dichloropropane	142-28-9		N	N	N	N															
1,4-Dichlorobenzene	106-46-7	7.50	7.5	Type 3	11.6	Type 4															
2-Butanone	78-93-3	200	200	Type 3	200	Type 3															
2-Chloroethyl vinyl Ether	110-75-8		N	N	N	N															
4-Methyl-2-pentanone	108-10-1	200	200	Type 3	200	Type 3															
Acetone	67-64-1	400	400	Type 3	400	Type 3	0.05 U	**0.095**	0.05 U	**0.1**	0.08 U	**0.34**	**0.99**	**24**	0.05 U	2.5 U	**0.35**	0.05 U	0.056 U	0.052 U	**0.79**
Benzene	71-43-2	0.50	1.23	Type 4	1.23	Type 4	0.005 U	0.005 U	0.005 U	0.0087 U	0.008 U	0.0065 U	0.0086 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0056 U	0.0052 U	0.0055 U
Bromodichloromethane	75-27-4		N	N	N	N															
Bromoform	75-25-2	8.00	8.0	Type 3	8.0	Type 3															
Bromomethane	74-83-9		N	N	N	N															
Carbon disulfide	75-15-0	400	400	Type 3	400	Type 3															
Carbon Tetrachloride	56-23-5		N	N	N	N															

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC January 2003 Sampling Event																															
	Location		Type 1	Non-Residential RRS				B-18-03A		B-18-03B		B-18-03C		B-18-03D		B-19-03A		B-19-03B		B-19-03C		B-19-03D		B-19-03E		B-20-03A		B-20-03B		B-21-03A		B-21-03B		B-21-03C		B-21-03D	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2'-4'		4'-6'		8'-10'		12'-14'		2'-4'		4'-6'		8'-10'		12'-14'		2'-4'		4'-6'		8'-10'		2'-4'		4'-6'		8'-10'		12'-14'	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	0.005	U	0.005	U	0.005	U	0.0087	U	0.008	U	0.0065	U	0.0086	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																														
Chloroform		67-66-3		N	N	N	N	0.005	U	0.005	U	0.005	U	0.0087	U	0.008	U	0.0065	U	0.0086	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
Chloromethane		74-87-3		N	N	N	N																														
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																														
cis-1,2-Dichloroethylene		156-59-2	7.00	7.0	Type 3	7.0	Type 3	0.005	U	0.005	U	0.005	U	0.0087	U	**0.009**		0.0065	U	0.0086	U	0.005	U	0.005	U	**0.016**		0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																														
Dibromochloromethane		124-48-1		N	N	N	N																														
Dibromomethane		74-95-3		N	N	N	N																														
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																														
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	0.005	U	0.005	U	0.005	U	0.0087	U	0.008	U	0.0065	U	0.0086	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
Hexachlorobutadiene		87-68-3		N	N	N	N																														
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																														
m&p-Xylene		1330-20-7																																			
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4	0.01	U	0.01	U	0.01	U	0.017	U	0.016	U	0.013	U	0.017	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.011	U	0.01	U	0.011	U
o-Xylene		1330-20-7																																			
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4																														
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	**0.0055**		**0.0082**		**0.011**		**0.013**		**0.025**		**0.18**		**0.22**		**0.0055**		0.005	U	0.25	U	0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																														
Toluene		108-88-3	100	100	Type 3	676	Type 4	0.005	U	0.005	U	0.005	U	0.0087	U	0.008	U	0.0065	U	0.0086	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																														
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																														
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3	0.005	U	0.005	U	0.005	U	0.0087	U	0.008	U	0.0065	U	0.0086	U	0.005	U	0.005	U	**0.02**		0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																														
Trichlorofluoromethane		75-69-4		N	N	N	N																														
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3	0.005	U	0.005	U	0.005	U	0.0087	U	0.008	U	0.0065	U	0.0086	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.0056	U	0.0052	U	0.0055	U
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	0.015	U	0.015	U	0.015	U	0.026	U	0.024	U	0.02	U	0.026	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.017	U	0.016	U	0.017	U
Pesticides - mg/kg																																					
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4	0.0083	U	0.067	U	**0.0018**		0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4	0.0083	U	0.067	U	**0.0072**		**0.002**		0.0017	U	0.0017	U	0.0017	U	0.0017	U	**0.0025**		0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4	0.0083	U	0.067	U	**0.0023**		**0.0029**		0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4	0.083	U	0.067	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U										
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4																					0.0017	U								
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4																														
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4																														
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4																														
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.0083	U	0.067	U	**0.0058**		0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	**0.21**		**2**		**0.046**		0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3																														
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3	0.0083	U	0.067	U	**0.0018**		0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4																														
Endrin		72-20-8	10.0	247	Type 4	247	Type 4																														
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4																														
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4																														
Heptachlor		76-44-8		N	N	N	N																							0.0017	U	0.0017	U	0.0017	U	0.0017	U
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3																														
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4	0.0083	U	0.067	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4																														
Toxaphene		8001-35-2		N	N	N	N																														
Polychlorinated biphenyls (PCBs) - mg/kg																																					
PCB-1221		11104-28-2		N	N	N	N	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND									
PCB-1232		11141-16-5		N	N	N	N																														
PCB-1242		53469-21-9		N	N	N	N																														
PCB-1248		12672-29-6		N	N	N	N																														
PCB-1254		11097-69-1		N	N	N	N																														
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4																							ND		ND		ND		ND	

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this dc
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associat
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.
Denotes concentration above the Type 1 RRS (delineation standard)
Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables w
Denotes sample was collected at or beneath the groundwater table.
N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC January 2003 Sampling Event																									
	Location		Type 1	Non-Residential RRS				B-22-03A		B-22-03B		B-22-03C		B-22-03D		B-23-03A		B-23-03B		B-24-03A		B-24-03B	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2'-4'		4'-6'		8'-10'		12'-14'		4'-6'		8'-10'		4'-6'		8'-10'	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003	
Semivolatiles- mg/kg																							
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4																
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4																
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4																
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4																
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4																
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4																
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4																
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4																
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4																
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4																
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4																
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4																
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4																
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4																
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4																
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3																
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4	0.33	U	**0.4**		0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4																
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4																
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4																
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4																
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4																
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4																
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4																
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4																
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4																
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4	0.33	U	**0.36**		0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
Phenol		108-95-2	400	400	Type 3	400	Type 3																
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4																
Volatiles-mg/kg																							
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	**0.13**		**0.0066**		**0.19**		**0.042**		**0.12**		0.005	U	0.005	U	0.005	U
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4																
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4																
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	**0.0055**		0.005	U	0.0081	U	0.0092	U	**0.029**		0.005	U	0.005	U	0.005	U
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.005	U	0.005	U	0.0081	U	0.0092	U	0.0071	U	0.005	U	0.005	U	0.005	U
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.005	U	0.005	U	0.0081	U	0.0092	U	0.0071	U	0.005	U	0.005	U	0.005	U
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																
1,2-Dibromoethane		106-93-4		N	N	N	N																
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	0.33	U	0.33	U	0.33	U	0.33	U	**0.46**		0.33	U	0.33	U	0.33	U
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4	0.005	U	0.005	U	0.0081	U	0.0092	U	0.0071	U	0.005	U	0.005	U	0.005	U
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4																
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4																
1,3-Dichloropropane		142-28-9		N	N	N	N																
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4																
2-Butanone		78-93-3	200	200	Type 3	200	Type 3																
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3																
Acetone		67-64-1	400	400	Type 3	400	Type 3	**0.052**		0.05	U	0.081	U	0.092	U	**0.081**		**0.094**		0.05	U	0.05	U
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	0.005	U	0.005	U	0.0081	U	0.0092	U	0.0071	U	0.005	U	0.005	U	0.005	U
Bromodichloromethane		75-27-4		N	N	N	N																
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3																
Bromomethane		74-83-9		N	N	N	N																
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3																
Carbon Tetrachloride		56-23-5		N	N	N	N																

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC January 2003 Sampling Event																													
	Location		Type 1	Non-Residential RRS				B-22-03A		B-22-03B		B-22-03C		B-22-03D		B-23-03A		B-23-03B		B-24-03A		B-24-03B	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2'-4'		4'-6'		8'-10'		12'-14'		4'-6'		8'-10'		4'-6'		8'-10'	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003		1/30/2003	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	0.005	U	0.005	U	0.0081	U	0.0092	U	0.0071	U	0.005	U	0.005	U	0.005	U
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																
Chloroform		67-66-3		N	N	N	N	0.005	U	0.005	U	0.0081	U	0.0092	U	0.0071	U	0.005	U	0.005	U	0.005	U
Chloromethane		74-87-3		N	N	N	N																
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																
cis-1,2-Dichloroethylene		156-59-2	7.00	7.0	Type 3	7.0	Type 3	**0.047**		0.005	U	0.0081	U	**0.012**		**0.21**		**0.014**		0.005	U	0.005	U
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																
Dibromochloromethane		124-48-1		N	N	N	N																
Dibromomethane		74-95-3		N	N	N	N																
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	**0.0052**		0.005	U	0.0081	U	0.0092	U	**0.01**		0.005	U	0.005	U	0.005	U
Hexachlorobutadiene		87-68-3		N	N	N	N																
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																
m&p-Xylene		1330-20-7																					
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4	0.01	U	0.01	U	0.016	U	0.018	U	0.014	U	0.01	U	0.01	U	0.01	U
o-Xylene		1330-20-7																					
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4																
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	**0.51**		**0.0066**		**0.22**		**0.053**		**0.43**		**0.012**		**0.019**		**0.0057**	
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																
Toluene		108-88-3	100	100	Type 3	676	Type 4	0.005	U	0.005	U	0.0081	U	0.0092	U	0.075	U	0.005	U	0.005	U	0.005	U
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3	**0.17**		0.005	U	**0.071**		**0.015**		**0.1**		0.005	U	0.005	U	0.005	U
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																
Trichlorofluoromethane		75-69-4		N	N	N	N																
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3	0.005	U	0.005	U	0.0081	U	0.0092	U	0.0071	U	0.005	U	0.005	U	0.005	U
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	**0.034**		0.015	U	**0.025**		0.027	U	**0.082**		0.015	U	0.015	U	0.015	U
Pesticides - mg/kg																							
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4	**0.3**		**0.038**		0.0017	U	0.0017	U	0.033	U	0.033	U	0.083	U	**0.046**	
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4	**0.27**		**0.032**		**0.0021**		**0.0019**		0.033	U	0.033	U	0.083	U	0.033	U
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4	0.033	U	0.0083	U	0.0017	U	0.0017	U	0.033	U	0.033	U	0.083	U	0.033	U
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4																
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4																
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4																
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4																
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4																
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	**0.35**		**0.035**		**0.0024**		0.0017	U	0.033	U	0.033	U	0.083	U	0.033	U
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.33	U	0.083	U	0.017	U	0.017	U	0.33	U	0.33	U	0.83	U	0.33	U
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3																
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3	**0.21**		**0.017**		0.0017	U	0.0017	U	0.033	U	0.033	U	0.083	U	0.033	U
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4																
Endrin		72-20-8	10.0	247	Type 4	247	Type 4																
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4																
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4																
Heptachlor		76-44-8		N	N	N	N	0.033	U	0.0083	U	0.0017	U	0.0017	U	0.033	U	0.033	U	0.083	U	0.033	U
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3																
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4	0.033	U	0.0083	U	0.0017	U	**0.0018**		0.033	U	0.033	U	0.083	U	0.033	U
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4																
Toxaphene		8001-35-2		N	N	N	N																
Polychlorinated biphenyls (PCBs) - mg/kg																							
PCB-1221		11104-28-2		N	N	N	N																
PCB-1232		11141-16-5		N	N	N	N																
PCB-1242		53469-21-9		N	N	N	N																
PCB-1248		12672-29-6		N	N	N	N																
PCB-1254		11097-69-1		N	N	N	N																
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4	ND		ND		ND		ND		ND		ND		ND		ND	

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this dc
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associat
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.
Denotes concentration above the Type 1 RRS (delineation standard)
Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables w
Denotes sample was collected at or beneath the groundwater table.
N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC March 2003 Sampling Event								B-1		B-1		B-5		B-5		B-5		B-8		B-8		B-13		B-13		B-13		B-13		B-25		B-25		B-25	
	Location		Type 1	Non-Residential RRS				B-1A		B-1B		B-5A		B-5B		B-5C		B-8A		B-8B		B-13A		B-13B		B-50B		B-13C		B-25A		B-25B		B-25C	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		3		5		3		5		9		3		5		3		5		5		9		3		5		9	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003	
Semivolatiles- mg/kg																																			
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4																												
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4																												
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4																												
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4																												
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4																												
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4																												
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4																												
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4	1.7	U	1.7	U	1.7	U	1.7	U	3.3	U	0.33	U	1.7	U	1.7	U	8.3	U	6.7	U	**10**		**17**		0.33	U	**9.1**	
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4																												
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4																												
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4																												
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4																												
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4																												
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4																												
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4																												
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3																												
bis(2-Ethylhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4																												
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4																												
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4																												
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4																												
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4																												
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4																												
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	1.7	U	1.7	U	1.7	U	1.7	U	3.3	U	0.33	U	1.7	U	1.7	U	8.3	U	6.7	U	**8.5**		17	U	3.3	U	3.3	U
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4																												
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	1.7	U	1.7	U	1.7	U	**12**		**47**		0.33	U	1.7	U	1.7	U	**30**		**12**		**11**		**120**		**52**		**44**	
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4																												
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4																												
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4																												
Phenol		108-95-2	400	400	Type 3	400	Type 3																												
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4																												
Volatiles-mg/kg																																			
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																												
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4																												
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4																												
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4	0.0042	U	0.0055	U	0.0045	U	0.025	U	0.025	U	0.005	U	0.0091	U	0.0044	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3																												
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.0042	U	0.0055	U	0.0045	U	0.025	U	0.025	U	0.004	U	0.0091	U	0.0044	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.0042	U	0.0055	U	0.0045	U	0.025	U	0.025	U	0.004	U	0.0091	U	0.0044	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																												
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	1.7	U	1.7	U	1.7	U	**9.4**		**130**		0.33	U	1.7	U	1.7	U	8.3	U	6.7	U	8.3	U	17	U	3.3	U	3.3	U
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																												
1,2-Dibromoethane		106-93-4		N	N	N	N																												
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	1.7	U	1.7	U	1.7	U	**2.3**		**46**		0.33	U	1.7	U	1.7	U	8.3	U	6.7	U	8.3	U	17	U	**9.2**		**8.4**	
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4																												
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4																												
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4	1.7	U	1.7	U	1.7	U	1.7	U	3.3	U	0.33	U	1.7	U	1.7	U	8.3	U	6.7	U	8.3	U	17	U	0.33	U	3.3	U
1,3-Dichloropropane		142-28-9		N	N	N	N																												
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	1.7	U	1.7	U	1.7	U	1.7	U	**5**		0.33	U	1.7	U	1.7	U	8.3	U	6.7	U	8.3	U	17	U	3.3	U	3.3	U
2-Butanone		78-93-3	200	200	Type 3	200	Type 3																												
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																												
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3																												
Acetone		67-64-1	400	400	Type 3	400	Type 3	0.042	U	**0.087**		0.045	U	0.25	U	0.25	U	0.05	U	0.091	U	**0.045**		0.25	U	0.25	U	**0.62**		0.25	U	0.25	U	**0.26**	
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	0.0042	U	0.0055	U	0.0045	U	0.025	U	0.025	U	**0.043**		0.0091	U	0.0044	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
Bromodichloromethane		75-27-4		N	N	N	N																												
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3																												
Bromomethane		74-83-9		N	N	N	N																												
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3	**0.0076**		0.0055	U	0.0045	U	0.025	U	0.025	U	0.005	U	0.0091	U	0.0044	U	**0.029**		0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
Carbon Tetrachloride		56-23-5		N	N	N	N																												

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC March 2003 Sampling Event								B-1		B-1		B-5		B-5		B-5		B-8		B-8		B-13		B-13		B-13		B-13		B-25		B-25		B-25	
	Location		Type 1	Non-Residential RRS				B-1A		B-1B		B-5A		B-5B		B-5C		B-8A		B-8B		B-13A		B-13B		B-50B		B-13C		B-25A		B-25B		B-25C	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		3		5		3		5		9		3		5		3		5		5		9		3		5		9	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	0.0042	U	0.0055	U	**0.027**		**6.9**		**3.6**	E	**0.05**		0.0091	U	**0.076**		0.025	U	0.025	U	0.025	U	**0.13**		**0.15**		0.025	U
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																												
Chloroform		67-66-3		N	N	N	N																												
Chloromethane		74-87-3		N	N	N	N																												
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																												
cis-1,2-Dichloroethylene		156-59-2	7.00					0.0042	U	0.0055	U											0.0044	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																												
Dibromochloromethane		124-48-1		N	N	N	N																												
Dibromomethane		74-95-3		N	N	N	N																												
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																												
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	0.0042	U	0.0055	U	0.0045	U	**0.39**		**0.34**		0.005	U	0.0091	U	0.0044	U	**0.074**		0.025	U	0.025	U	**0.096**		**0.14**		0.025	U
Hexachlorobutadiene		87-68-3		N	N	N	N																												
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																												
m&p-Xylene		1330-20-7																																	
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4																												
o-Xylene		1330-20-7																																	
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4	0.0042	U	0.0055	U	0.0045	U	0.025	U	0.025	U	0.005	U	0.0091	U	0.0044	U	0.025	U	0.025	U	0.025	U	**0.03**		**0.032**		0.025	U
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	0.0042	U	0.013		0.0045	U	0.025	U	0.025	U	0.005	U	0.0091	U	0.0044	U	0.025	U	0.025	U	0.025	U	0.037		**0.25**		0.025	U
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																												
Toluene		108-88-3	100	100	Type 3	676	Type 4	0.0042	U	0.0055	U	0.0045	U	0.025	U	**0.056**		**0.051**		0.0091	U	0.0044	U	**0.03**		0.025	U	0.025	U	**0.78**		**0.91**		0.025	U
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																												
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																												
Trichloroethene (TCE)		79-01-6	0.50					0.0042	U	0.0055	U	0.0045	U	0.025	U	0.025	U	**0.039**		0.0091	U	0.0044	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																												
Trichlorofluoromethane		75-69-4		N	N	N	N																												
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3																												
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	0.013	U	0.016	U	0.014	U	**2.1**		**3.8**	E	0.015	U	0.027	U	0.013	U	**0.43**		0.075	U	0.075	U	**2.6**		**2.3**		0.075	U
Pesticides - mg/kg																																			
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4																							**310**		**33**		**70**	
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4																							**11**		**0.66**		**2.2**	
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4																							**1**		**21**		**100**	
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4																												
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4																												
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4																							0.017	U	0.0033	U	0.0033	U
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4																												
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4																												
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																							0.017	U	0.0033	U	0.0033	U
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																							0.17	U	0.0033	U	0.033	U
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3																												
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3																												
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4																												
Endrin		72-20-8	10.0	247	Type 4	247	Type 4																												
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4																												
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4																												
Heptachlor		76-44-8		N	N	N	N																												
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3																							0.017	U	0.0033	U	0.0033	U
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4																												
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4																												
Toxaphene		8001-35-2		N	N	N	N																												
Polychlorinated biphenyls (PCBs) - mg/kg																																			
PCB-1221		11104-28-2		N	N	N	N																												
PCB-1232		11141-16-5		N	N	N	N																												
PCB-1242		53469-21-9		N	N	N	N																												
PCB-1248		12672-29-6		N	N	N	N																												
PCB-1254		11097-69-1		N	N	N	N																												
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4																												

Notes:

NA Not Analyzed

NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.

? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point

U Analyte undetected at detection limit shown

J Dectected below the sample quantitation limit of instrument

B Analyte also detected in blanks

P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.

Denotes concentration above the Type 1 RRS (delineation standard)

Denotes non-detect value above the higher of the Type 3 or Type 4 RRS

Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.

Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.

Denotes sample was collected at or beneath the groundwater table.

Denotes sample location unknown. Assumed to be the same as the 1993 sample location.

N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC March 2003 Sampling Event								B-26		B-26		B-26		B-27		B-27		B-27		B-28		B-28		B-28		B-29		B-29		B-29	
	Location		Type 1	Non-Residential RRS				B-26A		B-26B		B-26C		B-27A		B-27B		B-27C		B-28A		B-28B		B-28C		B-29A		B-29B		B-29C	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2.5		6		10		3		5		9		3		5		9		3		5		9	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003	
Semivolatiles- mg/kg																															
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4																								
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4																								
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4																								
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4																								
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4																								
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4																								
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4																								
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4	3.3	U	1.7	U	8.3	U	3.3	U	8.3	U	33	U	3.3	U	17	U	0.33	U	0.33	U	6.7	U	6.7	U
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4																								
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4																								
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4																								
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4																								
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4																								
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4																								
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4																								
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3																								
bis(2-Ethylhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4																								
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4																								
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4																								
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4																								
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4																								
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4																								
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	3.3	U	1.7	U	8.3	U	3.3	U	8.3	U	33	U	3.3	U	17	U	0.33	U	0.33	U	6.7	U	6.7	U
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4																								
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	**3.9**		1.7	U	8.3	U	3.3	U	**210**		**210**		3.3	U	**47**		0.33	U	0.33	U	6.7	U	6.7	U
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4																								
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4																								
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4																								
Phenol		108-95-2	400	400	Type 3	400	Type 3																								
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4																								
Volatiles-mg/kg																															
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																								
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4																								
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4																								
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4	0.025	U	0.025	U	**0.047**		0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3																								
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.025	U	0.025	U	0.0053	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
1,1-Dichloroethylene	(DCE)	75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.025	U	0.025	U	0.0053	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																								
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	**34**		1.7	U	8.3	U	**9.8**		8.3	U	33	U	**15**		17	U	0.33	U	0.33	U	6.7	U	6.7	U
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																								
1,2-Dibromoethane		106-93-4		N	N	N	N																								
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	**5.6**		1.7	U	8.3	U	3.3	U	**110**		**120**		3.3	U	17	U	0.33	U	0.33	U	6.7	U	6.7	U
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4																								
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4																								
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4	3.3	U	1.7	U	8.3	U	3.3	U	**12**		33	U	3.3	U	17	U	0.33	U	0.33	U	6.7	U	6.7	U
1,3-Dichloropropane		142-28-9		N	N	N	N																								
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	3.3	U	1.7	U	8.3	U	**9.8**		**32**		33	U	**9.8**		17	U	0.33	U	0.33	U	6.7	U	6.7	U
2-Butanone		78-93-3	200	200	Type 3	200	Type 3																								
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																								
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3																								
Acetone		67-64-1	400	400	Type 3	400	Type 3	0.25	U	0.25	U	**0.36**	E	**0.82**		0.25	U	0.25	U	**0.45**		**0.5**		0.25	U	0.07	U	0.051	U	0.051	U
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	0.025	U	0.025	U	0.0053	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
Bromodichloromethane		75-27-4		N	N	N	N																								
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3																								
Bromomethane		74-83-9		N	N	N	N																								
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3	0.025	U	0.025	U	0.0053	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
Carbon Tetrachloride		56-23-5		N	N	N	N																								

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC March 2003 Sampling Event								B-26		B-26		B-26		B-27		B-27		B-27		B-28		B-28		B-28		B-29		B-29		B-29	
	Location		Type 1	Non-Residential RRS				B-26A		B-26B		B-26C		B-27A		B-27B		B-27C		B-28A		B-28B		B-28C		B-29A		B-29B		B-29C	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		2.5		6		10		3		5		9		3		5		9		3		5		9	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	**0.1**		0.025	U	**0.04**		**2.1**	E	**4.7**		**0.81**		**4.7**	E	**5.4**	E	0.025	U	0.007	U	0.0051	U	0.0051	U
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																								
Chloroform		67-66-3		N	N	N	N																								
Chloromethane		74-87-3		N	N	N	N																								
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																								
cis-1,2-Dichloroethylene		156-59-2	7.00					0.025	U	0.025	U	0.0053	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																								
Dibromochloromethane		124-48-1		N	N	N	N																								
Dibromomethane		74-95-3		N	N	N	N																								
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																								
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	**0.1**		0.025	U	**0.022**		0.025	U	0.025	U	**0.027**		0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
Hexachlorobutadiene		87-68-3		N	N	N	N																								
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																								
m&p-Xylene		1330-20-7																													
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4																								
o-Xylene		1330-20-7																													
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4	0.025	U	0.025	U	0.0053	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	**0.71**		0.025	U	**1.4**	E	0.025	U	0.025	U	**0.03**		0.025	U	0.048		0.025	U	0.007	U	0.0051	U	0.0051	U
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																								
Toluene		108-88-3	100	100	Type 3	676	Type 4	**0.056**		0.025	U	**3.3**	E	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																								
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																								
Trichloroethene (TCE)		79-01-6	0.50					0.025	U	0.025	U	**0.084**		0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.007	U	0.0051	U	0.0051	U
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																								
Trichlorofluoromethane		75-69-4		N	N	N	N																								
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3																								
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	**0.52**		0.075	U	**0.16**		0.075	U	**0.17**		**0.22**		0.075	U	0.075	U	0.075	U	0.021	U	0.015	U	0.051	U
Pesticides - mg/kg																															
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4	**180**		**5**		**0.069**		**49**		**25**		**210**		**22**		**94**		**0.93**							
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4	**6.3**		**0.049**		**0.0071**		**5.8**		**5.2**		**7.2**		**2.3**		**1.4**		**0.02**							
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4	**230**		**0.092**		**0.071**		**2**		**2.4**		**110**		**2.1**		**0.028**		**0.019**							
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4																								
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4																								
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4	**0.17**		0.0017	U	0.0033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	**0.0033**	U						
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4																								
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4																								
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.017	U	0.0017	U	0.0033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.0033	U						
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.17	U	0.017	U	0.033	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	**0.76**							
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3																								
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3																								
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4																								
Endrin		72-20-8	10.0	247	Type 4	247	Type 4																								
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4																								
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4																								
Heptachlor		76-44-8		N	N	N	N																								
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3	0.017	U	0.0017	U	0.0033	U	0.017	U	0.017	U	0.017	U	0.017	U	0.017	U	0.0033	U						
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4																								
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4																								
Toxaphene		8001-35-2		N	N	N	N																								
Polychlorinated biphenyls (PCBs) - mg/kg																															
PCB-1221		11104-28-2		N	N	N	N																								
PCB-1232		11141-16-5		N	N	N	N																								
PCB-1242		53469-21-9		N	N	N	N																								
PCB-1248		12672-29-6		N	N	N	N																								
PCB-1254		11097-69-1		N	N	N	N																								
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4																								

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this dc
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associa
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.
Denotes concentration above the Type 1 RRS (delineation standard)
Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables w
Denotes sample was collected at or beneath the groundwater table.
Denotes sample location unknown. Assumed to be the same as the 1993 sample location.
N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC March 2003 Sampling Event								B-30		B-30		B-30		B-31		B-31		B-31		B-32		B-32		B-32		B-33		B-33		B-33	
	Location		Type 1	Non-Residential RRS				B-30A		B-30B		B-30C		B-31B		B-31A		B-31C		B-32A		B-32B		B-32C		B-33A		B-33B		B-33C	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		3		5		9		5		3		9		3		5		9		3		5		9	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003	
Semivolatiles- mg/kg																															
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4																								
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4																								
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4																								
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4																								
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4																								
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4																								
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4																								
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4	0.33	U	6.7	U	6.7	U	0.33	U	0.33	U	0.33	U	6.7	U	0.33	U	6.7	U	6.7	U	0.33	U	6.7	U
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4																								
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4																								
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4																								
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4																								
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4																								
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4																								
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4																								
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3																								
bis(2-Ethylhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4																								
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4																								
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4																								
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4																								
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4																								
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4																								
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	0.33	U	6.7	U	6.7	U	0.33	U	0.33	U	0.33	U	6.7	U	0.33	U	6.7	U	6.7	U	0.33	U	6.7	U
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4																								
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	0.33	U	6.7	U	6.7	U	0.33	U	0.33	U	0.33	U	6.7	U	0.33	U	6.7	U	6.7	U	0.33	U	6.7	U
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4																								
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4																								
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4																								
Phenol		108-95-2	400	400	Type 3	400	Type 3																								
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4																								
Volatiles-mg/kg																															
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4																								
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4																								
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4																								
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3																								
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3																								
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	0.33	U	6.7	U	6.7	U	0.33	U	0.33	U	0.33	U	6.7	U	0.33	U	6.7	U	6.7	U	0.33	U	6.7	U
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3																								
1,2-Dibromoethane		106-93-4		N	N	N	N																								
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	0.33	U	6.7	U	6.7	U	0.33	U	0.33	U	0.33	U	6.7	U	0.33	U	6.7	U	6.7	U	0.33	U	6.7	U
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4																								
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4																								
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4	0.33	U	6.7	U	6.7	U	0.33	U	0.33	U	0.33	U	6.7	U	0.33	U	6.7	U	6.7	U	0.33	U	6.7	U
1,3-Dichloropropane		142-28-9		N	N	N	N																								
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	0.33	U	6.7	U	6.7	U	0.33	U	0.33	U	0.33	U	6.7	U	0.33	U	6.7	U	6.7	U	0.33	U	6.7	U
2-Butanone		78-93-3	200	200	Type 3	200	Type 3																								
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N																								
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3																								
Acetone		67-64-1	400	400	Type 3	400	Type 3	0.059	U	0.052	U	0.048	U	0.047	U	0.043	U	**0.077**		**0.068**		0.063	U	0.084	U	0.067	U	0.042	U	0.048	U
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
Bromodichloromethane		75-27-4		N	N	N	N																								
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3																								
Bromomethane		74-83-9		N	N	N	N																								
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
Carbon Tetrachloride		56-23-5		N	N	N	N																								

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

ESC March 2003 Sampling Event								B-30		B-30		B-30		B-31		B-31		B-31		B-32		B-32		B-32		B-33		B-33		B-33	
	Location		Type 1	Non-Residential RRS				B-30A		B-30B		B-30C		B-31B		B-31A		B-31C		B-32A		B-32B		B-32C		B-33A		B-33B		B-33C	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		3		5		9		5		3		9		3		5		9		3		5		9	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003		3/20/2003	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																								
Chloroform		67-66-3		N	N	N	N																								
Chloromethane		74-87-3		N	N	N	N																								
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																								
cis-1,2-Dichloroethylene		156-59-2	7.00					0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U										
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																								
Dibromochloromethane		124-48-1		N	N	N	N																								
Dibromomethane		74-95-3		N	N	N	N																								
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																								
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
Hexachlorobutadiene		87-68-3		N	N	N	N																								
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																								
m&p-Xylene		1330-20-7																													
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4																								
o-Xylene		1330-20-7																													
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																								
Toluene		108-88-3	100	100	Type 3	676	Type 4	0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																								
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																								
Trichloroethene (TCE)		79-01-6	0.50					0.0059	U	0.0052	U	0.0048	U	0.0047	U	0.0043	U	0.0047	U	0.0068	U	0.0063	U	0.0084	U	0.0067	U	0.0042	U	0.0048	U
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																								
Trichlorofluoromethane		75-69-4		N	N	N	N																								
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3																								
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	0.018	U	0.016	U	0.015	U	**0.014**		0.013	U	0.014	U	0.02	U	0.019	U	0.025	U	0.02	U	0.013	U	0.014	U
Pesticides - mg/kg																															
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4																								
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4																								
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4																								
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4																								
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4																								
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4																								
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4																								
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4																								
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																								
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4																								
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3																								
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3																								
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4																								
Endrin		72-20-8	10.0	247	Type 4	247	Type 4																								
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4																								
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4																								
Heptachlor		76-44-8		N	N	N	N																								
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3																								
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4																								
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4																								
Toxaphene		8001-35-2		N	N	N	N																								
Polychlorinated biphenyls (PCBs) - mg/kg																															
PCB-1221		11104-28-2		N	N	N	N																								
PCB-1232		11141-16-5		N	N	N	N																								
PCB-1242		53469-21-9		N	N	N	N																								
PCB-1248		12672-29-6		N	N	N	N																								
PCB-1254		11097-69-1		N	N	N	N																								
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4																								

Notes:

NA Not Analyzed

NF Sample Location Not Found. This sample location coud not be located with the information available at the time this dc

? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associa

U Analyte undetected at detection limit shown

J Dectected below the sample quantitation limit of instrument

B Analyte also detected in blanks

P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.

Denotes concentration above the Type 1 RRS (delineation standard)

Denotes non-detect value above the higher of the Type 3 or Type 4 RRS

Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.

Blank Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables w

Denotes sample was collected at or beneath the groundwater table.

Denotes sample location unknown. Assumed to be the same as the 1993 sample location.

N Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

WSP 2007 DP-5 Area Investigation																		
	Location		Type 1	Non-Residential RRS				B-36	B-36	B-36	B-36	B-37	B-37	B-37	B-37	B-38	B-38	B-38
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		(2-4)	(4-6)	(6-8)	(8-10)	(2-4)	(6-8)	(8-10)	(10-12)	(2-4)	(4-6)	(6-8)
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007
Semivolatiles- mg/kg																		
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4											
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4											
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4											
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4											
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4											
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4											
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4											
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4											
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4											
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4											
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4											
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4											
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4											
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4											
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4											
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3											
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4											
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4											
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4											
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4											
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4											
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4											
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4											
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4											
Naphthalene		91-20-3	100	100	Type 3	100	Type 3											
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4											
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4											
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4											
Phenol		108-95-2	400	400	Type 3	400	Type 3											
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4											
Volatiles-mg/kg																		
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4											
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4											
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4											
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4											
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3											
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4											
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4											
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3											
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4											
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3											
1,2-Dibromoethane		106-93-4		N	N	N	N											
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4											
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4											
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4											
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4											
1,3-Dichloropropane		142-28-9		N	N	N	N											
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4											
2-Butanone		78-93-3	200	200	Type 3	200	Type 3											
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N											
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3											
Acetone		67-64-1	400	400	Type 3	400	Type 3											
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4											
Bromodichloromethane		75-27-4		N	N	N	N											
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3											
Bromomethane		74-83-9		N	N	N	N											
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3											
Carbon Tetrachloride		56-23-5		N	N	N	N											

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

WSP 2007 DP-5 Area Investigation																							
	Location		Type 1	Non-Residential RRS				B-36		B-36		B-36		B-36		B-37		B-37		B-37		B-38		B-38		B-38	
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		(2-4)		(4-6)		(6-8)		(8-10)		(2-4)		(6-8)		(8-10)		(10-12)		(2-4)		(4-6)		(6-8)	
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	6/26/2007		6/26/2007		6/26/2007		6/26/2007		6/26/2007		6/26/2007		6/26/2007		6/26/2007		6/26/2007		6/26/2007	
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4																				
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4																				
Chloroform		67-66-3		N	N	N	N																				
Chloromethane		74-87-3		N	N	N	N																				
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3																				
cis-1,2-Dichloroethylene		156-59-2	7.00																								
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4																				
Dibromochloromethane		124-48-1		N	N	N	N																				
Dibromomethane		74-95-3		N	N	N	N																				
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3																				
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4																				
Hexachlorobutadiene		87-68-3		N	N	N	N																				
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4																				
m&p-Xylene		1330-20-7																									
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4																				
o-Xylene		1330-20-7																									
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4																				
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4																				
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4																				
Toluene		108-88-3	100	100	Type 3	676	Type 4																				
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3																				
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N																				
Trichloroethene (TCE)		79-01-6	0.50																								
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3																				
Trichlorofluoromethane		75-69-4		N	N	N	N																				
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3																				
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4																				
Pesticides - mg/kg																											
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4	**0.16**		**0.21**		**6.3**		0.0041	U	**0.35**		**0.0087**		0.0045	U	**0.088**		0.004	U	0.0047	U	0.0042	U
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4	**0.12**		**0.098**		**0.91**		0.0041	U	**0.11**		0.0045	U	0.0045	U	**0.032**		0.004	U	0.0047	U	0.0042	U
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4	**0.015**		0.0041	U	**0.99**		0.0041	U	**0.013**		**0.0068**		0.0045	U	**0.018**		0.004	U	0.0047	U	0.0042	U
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4																				
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4																				
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4	0.002	U	0.002	U	**0.24**		0.002	U	0.0021	U	0.0023	U	0.0023	U	0.0023	U	0.002	U	0.0023	U	0.0021	U
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4																				
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4																				
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.002	U	0.002	U	**0.37**		0.002	U	0.0021	U	0.0023	U	0.0023	U	0.0023	U	0.002	U	0.0023	U	0.0021	U
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.002	U	0.002	U	**0.61**		0.002	U	0.0021	U	0.0023	U	0.0023	U	0.0023	U	0.002	U	0.0023	U	0.0021	U
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3																				
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3	0.0041	U	**0.074**		**1.1**		0.0041	U	0.0041	U	0.0045	U	0.0045	U	**0.015**		0.004	U	0.0047	U	0.0042	U
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4																				
Endrin		72-20-8	10.0	247	Type 4	247	Type 4	0.0041	U	0.0041	U	0.0042	U	0.0041	U	0.0041	U	0.0045	U	0.0045	U	0.0045	U	0.004	U	0.0047	U	0.0042	U
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4	0.0041	U	0.0041	U	0.0042	U	0.0041	U	0.0041	U	0.0045	U	0.0045	U	0.0045	U	0.004	U	0.0047	U	0.0042	U
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4	0.0041	U	0.0041	U	0.0042	U	0.0041	U	0.0041	U	0.0045	U	0.0045	U	0.0045	U	0.004	U	0.0047	U	0.0042	U
Heptachlor		76-44-8		N	N	N	N																				
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3																				
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4																				
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4																				
Toxaphene		8001-35-2		N	N	N	N																				
Polychlorinated biphenyls (PCBs) - mg/kg																											
PCB-1221		11104-28-2		N	N	N	N																				
PCB-1232		11141-16-5		N	N	N	N																				
PCB-1242		53469-21-9		N	N	N	N																				
PCB-1248		12672-29-6		N	N	N	N																				
PCB-1254		11097-69-1		N	N	N	N																				
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4																				

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.
Denotes concentration above the Type 1 RRS (delineation standard)
Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.
Denotes sample was collected at or beneath the groundwater table.
N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

	WSP 2007 DP-5 Area Investigation														
	Location		Type 1	Non-Residential RRS				B-38	B-38	B-39	B-39	B-39	B-39	B-39	B-100
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		(8-10)	(10-12)	(2-4)	(4-6)	(6-8)	(8-10)	(10-12)	(8-10)
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007
Semivolatiles- mg/kg															
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4								
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4								
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4								
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4								
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4								
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4								
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4								
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4								
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4								
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4								
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4								
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4								
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4								
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4								
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4								
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3								
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4								
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4								
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4								
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4								
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4								
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4								
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4								
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4								
Naphthalene		91-20-3	100	100	Type 3	100	Type 3								
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4								
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4								
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4								
Phenol		108-95-2	400	400	Type 3	400	Type 3								
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4								
Volatiles-mg/kg															
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4								
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4								
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4								
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4								
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3								
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4								
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4								
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3								
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4								
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3								
1,2-Dibromoethane		106-93-4		N	N	N	N								
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4								
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4								
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4								
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4								
1,3-Dichloropropane		142-28-9		N	N	N	N								
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4								
2-Butanone		78-93-3	200	200	Type 3	200	Type 3								
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N								
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3								
Acetone		67-64-1	400	400	Type 3	400	Type 3								
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4								
Bromodichloromethane		75-27-4		N	N	N	N								
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3								
Bromomethane		74-83-9		N	N	N	N								
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3								
Carbon Tetrachloride		56-23-5		N	N	N	N								

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

WSP 2007 DP-5 Area Investigation															
	Location	CAS NUMBER	Type 1 RRS (mg/kg)	Non-Residential RRS				B-38	B-38	B-39	B-39	B-39	B-39	B-39	B-100
	Depth (feet bgs)			SS Soil (0-2')		SB Soil (>2')		(8-10)	(10-12)	(2-4)	(4-6)	(6-8)	(8-10)	(10-12)	(8-10)
Constituent	Date Sampled			RRS	RRS Type	RRS	RRS Type	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007	6/26/2007
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4								
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4								
Chloroform		67-66-3		N	N	N	N								
Chloromethane		74-87-3		N	N	N	N								
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3								
cis-1,2-Dichloroethylene		156-59-2	7.00												
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4								
Dibromochloromethane		124-48-1		N	N	N	N								
Dibromomethane		74-95-3		N	N	N	N								
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3								
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4								
Hexachlorobutadiene		87-68-3		N	N	N	N								
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4								
m&p-Xylene		1330-20-7													
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4								
o-Xylene		1330-20-7													
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4								
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4								
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4								
Toluene		108-88-3	100	100	Type 3	676	Type 4								
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3								
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N								
Trichloroethene (TCE)		79-01-6	0.50												
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3								
Trichlorofluoromethane		75-69-4		N	N	N	N								
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3								
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4								
Pesticides - mg/kg															
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4	0.004 U	0.0041 U	**0.1**	0.0043 U	**0.099**	0.004 U	0.0045 U	0.0041 U
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4	0.004 U	0.0041 U	**0.03**	0.0043 U	0.0045 U	0.0042 U	0.0045 U	0.0041 U
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4	0.004 U	0.0041 U	**0.023**	0.0043 U	0.0045 U	0.0042 U	0.0045 U	0.0041 U
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4								
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4								
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4	0.002 U	0.0021 U	0.0021 U	0.0022 U	0.0023 U	0.0021 U	0.0023 U	0.0021 U
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4								
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4								
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.002 U	0.0021 U	0.0021 U	0.0022 U	0.0023 U	0.0021 U	0.0023 U	0.0021 U
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4	0.002 U	0.0021 U	0.0021 U	0.0022 U	0.0023 U	0.0021 U	0.0023 U	0.0021 U
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3								
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.0045 U	0.0042 U	0.0045 U	0.0041 U
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4								
Endrin		72-20-8	10.0	247	Type 4	247	Type 4	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.0045 U	0.0042 U	0.0045 U	0.0041 U
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.0045 U	0.0042 U	0.0045 U	0.0041 U
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.0045 U	0.0042 U	0.0045 U	0.0041 U
Heptachlor		76-44-8		N	N	N	N								
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3								
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4								
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4								
Toxaphene		8001-35-2		N	N	N	N								
Polychlorinated biphenyls (PCBs) - mg/kg															
PCB-1221		11104-28-2		N	N	N	N								
PCB-1232		11141-16-5		N	N	N	N								
PCB-1242		53469-21-9		N	N	N	N								
PCB-1248		12672-29-6		N	N	N	N								
PCB-1254		11097-69-1		N	N	N	N								
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4								

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this do
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associat
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis

(yellow)	Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.
(tan)	Denotes concentration above the Type 1 RRS (delineation standard)
(blue)	Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
(green)	Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank	Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables wh
(navy)	Denotes sample was collected at or beneath the groundwater table.
N	Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

WSP 2008 Excavation Verification Samples																						
	Location		Type 1	Non-Residential RRS				WTF-VER-73	WTR-VER-73A	WTF-VER-73B	WTF-VER-73C	WTF-VER-74	WTF-VER-74A	WTF-VER-75	WTF-VER-76	WTF-VER-77	PRM-VER-67	PRM-VER-71	PRM-VER-72	ETF-VER-S6	ETF-VER-S6A	ETF-EVR-56B
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		9'	9'	9'	9'	9'	9'	5'	5'	5'	14'	14'	14'			12'
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	5/13/2008	5/16/2008	5/20/2008	5/28/2008	5/13/2008	5/16/2008	5/13/2008	5/13/2008	5/13/2008	5/6/2008	5/9/2008	5/9/2008	5/2/2008	5/9/2008	5/15/2008
Semivolatiles- mg/kg																						
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4															
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4															
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4															
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4															
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4															
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4															
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4															
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4	**10**	ND	**3.1**	ND	**1.1**	ND	ND	ND	ND				ND	**1**	ND
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4													ND	ND	ND
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4													ND	ND	ND
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4															
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4															
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4															
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4															
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4															
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3															
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4															
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4															
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4															
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4															
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4															
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4															
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	ND	ND	ND	ND	**0.46**	ND	ND	ND	**0.52**				ND	**0.46**	ND
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4															
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	**130**	**38**	**18**	**0.92**	**2.7**	**6.5**	ND	ND	**1.2**				ND	**6.5**	ND
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4															
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4															
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4	**5.7**	ND	ND	ND	ND	ND	ND	ND	ND				ND	ND	ND
Phenol		108-95-2	400	400	Type 3	400	Type 3	ND	ND	ND	ND	**0.52**	ND	ND	ND	ND						
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4															
Volatiles-mg/kg																						
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4															
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4													**0.0065**	**0.066**	ND
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4															
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4															
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3										ND	**0.077**	**0.011**	ND	**0.031**	ND
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4													ND	**0.0081**	ND
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4															
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3															
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	**370**	**55**	**0.16**	**0.54**	**95**	**0.026**	ND	ND	**0.1**	ND	**0.083**	**0.0083**	ND	ND	ND
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3															
1,2-Dibromoethane		106-93-4		N	N	N	N															
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	**190**	**110**	**13**	**2**	**14**	**0.11**	ND	ND	**0.022**	ND	**3.9**	**0.035**	ND	**5.5**	ND
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4															
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4										ND	**0.011**	ND			
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4	**8.2**	**4.4**	**0.76**	**0.095**	**1.3**	**2.1**	ND	ND	ND	ND	**0.93**	**0.02**	ND	**2.1**	ND
1,3-Dichloropropane		142-28-9		N	N	N	N															
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	**36**	**17**	**2.2**	**0.54**	**8.9**	**5.7**	ND	ND	**0.017**	ND	**1.4**	**0.025**	ND	**1.4**	ND
2-Butanone		78-93-3	200	200	Type 3	200	Type 3															
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N															
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3										ND	ND	**0.031**			
Acetone		67-64-1	400	400	Type 3	400	Type 3	ND	**3.8**	ND	ND	ND	**0.91**	**0.86**	ND	**1.1**				ND	ND	**0.99**
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4													ND	ND	ND
Bromodichloromethane		75-27-4		N	N	N	N															
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3															
Bromomethane		74-83-9		N	N	N	N															
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3															
Carbon Tetrachloride		56-23-5		N	N	N	N															

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

WSP 2008 Excavation Verification Samples																						
	Location		Type 1	Non-Residential RRS				WTF-VER-73	WTR-VER-73A	WTF-VER-73B	WTF-VER-73C	WTF-VER-74	WTF-VER-74A	WTF-VER-75	WTF-VER-76	WTF-VER-77	PRM-VER-67	PRM-VER-71	PRM-VER-72	ETF-VER-56	ETF-VER-56A	ETF-EVR-56B
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		9'	9'	9'	9'	9'	9'	5'	5'	5'	14'	14'	14'			12'
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	5/13/2008	5/16/2008	5/20/2008	5/28/2008	5/13/2008	5/16/2008	5/13/2008	5/13/2008	5/13/2008	5/6/2008	5/9/2008	5/9/2008	5/2/2008	5/9/2008	5/15/2008
Chlorobenzene		108-90-7	10.0	34.7	Type 4	34.7	Type 4	**0.7**	**0.13**	**0.11**	**0.007**	**1.4**	**13**	ND	ND	ND	ND	**0.46**	**0.032**	ND	**0.0073**	ND
Chloroethane		75-00-3	1.00	1182	Type 4	1182	Type 4															
Chloroform		67-66-3		N	N	N	N															
Chloromethane		74-87-3		N	N	N	N															
cis-1,2-Dichloroethene		156-59-2	7.00	7.0	Type 3	7.0	Type 3	ND	**0.017**	**0.01**	ND	ND	ND	ND	ND	ND				**0.016**	**1.3**	ND
cis-1,2-Dichloroethylene		156-59-2	7.00																			
Cyclohexane		110-82-7	20.0	3842	Type 4	3842	Type 4													ND	ND	ND
Dibromochloromethane		124-48-1		N	N	N	N															
Dibromomethane		74-95-3		N	N	N	N															
Dichlorodifluoromethane		75-71-8	46.5	75.0	Type 4	100.0	Type 3															
Ethylbenzene		100-41-4	70.0	128	Type 4	128	Type 4	**0.94**	**0.18**	**0.19**	**0.014**	ND	**0.006**	ND	ND	ND	ND	**0.013**	ND	ND	**0.65**	ND
Hexachlorobutadiene		87-68-3		N	N	N	N															
Isopropylbenzene		98-82-8	21.9	720	Type 4	720	Type 4	**0.68**	**0.04**	**0.084**	ND	ND	ND	ND	ND	ND				ND	**0.086**	ND
m&p-Xylene		1330-20-7						**6.8**	**5.6**	**2.5**	ND	ND	**0.012**	ND	ND	**0.016**	ND	**0.085**	ND	ND	**3.2**	ND
Methylene chloride		75-09-2	0.50	5.05	Type 4	5.05	Type 4													ND	ND	ND
o-Xylene		1330-20-7						**5**	**3.8**	**1.5**	**0.055**	ND	**0.012**	ND	ND	**0.009**	ND	**0.046**	**0.022**	ND	**1.7**	ND
Styrene		100-42-5	14.0	1118	Type 4	1118	Type 4															
Tetrachloroethene (PCE)		127-18-4	0.50	0.5	Type 3	9.41	Type 4	**3**	**3.3**	**1.6**	**0.05**	ND	ND	ND	ND	ND	ND	**0.018**	**0.0061**	**12**	**10**	**0.01**
Tetrachloroethylene		127-18-4	0.50	0.50	Type 3	9.41	Type 4															
Toluene		108-88-3	100	100	Type 3	676	Type 4	**8.7**	**9.9**	**5.1**	**0.089**	ND	**0.006**	ND	ND	ND	ND	**0.15**	**0.14**	ND	**0.16**	ND
trans-1,2-Dichloroethene		156-60-5	10.0	10.0	Type 3	10.0	Type 3													ND	**0.0082**	ND
1,3-Dichloropropene (trans-1,3-Dichloropropene)		542-75-6		N	N	N	N															
Trichloroethene (TCE)		79-01-6	0.50	0.50	Type 3	0.50	Type 3	ND	**0.03**	**0.021**	ND	ND	ND	ND	ND	ND				**0.081**	**1.1**	ND
Trichloroethylene		79-01-6	0.50	0.50	Type 3	0.50	Type 3															
Trichlorofluoromethane		75-69-4		N	N	N	N															
Vinyl Chloride		75-01-4	0.20	0.20	Type 3	0.20	Type 3															
Xylene (total)		1330-20-7	1,000	1575	Type 4	1575	Type 4	**11.8**	**9.4**	**4**	**0.055**	ND	**0.024**	ND	ND	**0.025**	ND	**0.131**	**0.022**	ND	**4.9**	ND
Pesticides - mg/kg																						
4,4' -DDD		72-54-8	0.660	129	Type 4	129	Type 4	**54**	**61**	**4.8**	**4.2**	**210**	**33**	**0.037**	**0.21**	**34**						
4,4' -DDE		72-55-9	0.660	91.4	Type 4	91.4	Type 4	**6.8**	**0.91**	ND	ND	**5.3**	**2.6**	ND	**0.18**	**0.88**						
4,4' -DDT		50-29-3	0.660	131	Type 4	131	Type 4	**83**	**48**	**5.7**	**9.1**	**48**	**0.11**	ND	**0.12**	**5.9**						
Aldrin		309-00-2	0.660	3.37	Type 4	55.78	Type 4															
alpha-Endosulfan (Endosulfan I)		959-98-8	10.0	3890	Type 4	3890	Type 4															
alpha-BHC		319-84-6	0.660	1.92	Type 4	1.92	Type 4															
beta-BHC		319-85-7	0.660	1.92	Type 4	1.92	Type 4															
beta-Endosulfan (Endosulfan II)		33213-65-9	10.0	3890	Type 4	3890	Type 4															
gamma-Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4															
Chlordane		57-74-9	9.20	27.0	Type 4	27.0	Type 4															
delta-BHC		319-86-8	25.0	25.0	Type 3	25.0	Type 3															
Dieldrin (delta-Benzenehexachloride)		60-57-1	0.660	0.66	Type 3	0.66	Type 3															
Endosulfan sulfate		1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4															
Endrin		72-20-8	10.0	247	Type 4	247	Type 4															
Endrin ketone		72-20-8	10.0	119.33	Type 4	119.33	Type 4															
Endrin aldehyde		7421-93-4	10.0	40.23	Type 4	40.23	Type 4															
Heptachlor		76-44-8		N	N	N	N															
Heptachlor epoxide		1024-57-3	1.64	1.65	Type 3	1.65	Type 3															
Lindane		58-89-9	0.660	0.68	Type 4	0.68	Type 4															
Methoxychlor		72-43-5	10.0	5498	Type 4	5498	Type 4															
Toxaphene		8001-35-2		N	N	N	N															
Polychlorinated biphenyls (PCBs) - mg/kg																						
PCB-1221		11104-28-2		N	N	N	N															
PCB-1232		11141-16-5		N	N	N	N															
PCB-1242		53469-21-9		N	N	N	N															
PCB-1248		12672-29-6		N	N	N	N															
PCB-1254		11097-69-1		N	N	N	N															
PCB-1260		11096-82-5	1.55	3.5	Type 4	69.9	Type 4															

Notes:

NA Not Analyzed

NF Sample Location Not Found. This sample location coud not be located with the information available at the time this document was prepared.

? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures associated with data point

U Analyte undetected at detection limit shown

J Dectected below the sample quantitation limit of instrument

B Analyte also detected in blanks

P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.

Denotes concentration above the Type 1 RRS (delineation standard)

Denotes non-detect value above the higher of the Type 3 or Type 4 RRS

Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.

Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables which indicated BDL/ND or constituent was not listed.

Denotes sample was collected at or beneath the groundwater table.

N — Constituent not detected onsite

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

WSP 2008 Excavation Verification Samples																					
	Location		Type 1	Non-Residential RRS				ETF-VER-57	ETF-VER-58	ETF-VER-58A	ETF-VER-59	ETF-VER-60	ETF-VER-61	ETF-VER-62	WWS-VER-63	WWS-VER-63A	WWS-VER-64	WWS-VER-65	WWS-VER-66	WWS-VER-68	WWS-VER-69	WWS-VER-70
	Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		5'		9'		5'	5'	5'	5'	7'	10'	3'	3'	3'	3'	3'
Constituent	Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	5/2/2008	5/2/2008	5/9/2008	5/2/2008	5/2/2008	5/2/2008	5/2/2008	5/2/2008	5/8/2008	5/5/2008	5/5/2008	5/5/2008	5/8/2008	5/8/2008	5/8/2008
Semivolatiles- mg/kg																					
2,4,5-Trichlorophenol		95-95-4	400	7305	Type 4	7305	Type 4														
2,4,6-Trichlorophenol		88-06-2	3.00	43.4	Type 4	43.4	Type 4														
2,4-Dichlorophenol		120-83-2	2.00	61.5	Type 4	61.5	Type 4														
2,4-Dimethylphenol		105-67-9	70.0	410	Type 4	410	Type 4														
2,4-Dinitrophenol		51-28-5	3.30	38.5	Type 4	38.5	Type 4														
2-Methylphenol		95-48-7	3.80	327	Type 4	327	Type 4														
4-Methylphenol		106445	3.80	429	Type 4	429	Type 4														
Acenaphthene		83-32-9	300	12355	Type 4	12355	Type 4	**14**	ND		ND	ND	ND	ND								
Acenaphthylene		208-96-8	130	84969	Type 4	84969	Type 4	**3**	ND		ND	ND	ND	ND								
Anthracene		120-12-7	500	200762	Type 4	100000	Type 4	**0.51**	ND		ND	ND	ND	ND								
Benzo(a)anthracene		56-55-3	5.00	78.4	Type 4	100.6	Type 4														
Benzo(a)pyrene		50-32-8	1.64	7.84	Type 4	46.99	Type 4														
Benzo(b)fluoranthene		205-99-2	5.00	17.0	Type 4	340.8	Type 4														
Benzo(g,h,i)perylene		191-24-2	500	613200	Type 4	100000	Type 4														
Benzo(k)fluoranthene		207-08-9	5.00	496	Type 4	496	Type 4														
bis(2-Chloroisopropyl)ether		108-60-1	171	171	Type 3	171	Type 3														
bis(2-Ethyllhexyl)phthalate		117-81-7	50.0	3260	Type 4	3260	Type 4														
Chrysene		218-01-9	330	7839	Type 4	23827	Type 4														
Dibenz(a,h)anthracene		53-70-3	2.05	7.84	Type 4	229.44	Type 4														
Di-n-butylphthalate		84-74-2	400	4771	Type 4	4771	Type 4														
Di-n-octyl phthalate		117840	70.0	23296003	Type 4	100000	Type 4														
Fluoranthene		206-44-0	500	81760	Type 4	90688	Type 4														
Fluorene		86-73-7	360	14995	Type 4	14995	Type 4	**2.1**	ND		**1.2**	ND	ND	ND								
Indeno(1,2,3-cd)pyrene		193-39-5	5.00	78.4	Type 4	1109.2	Type 4														
Naphthalene		91-20-3	100	100	Type 3	100	Type 3	**7.4**	ND		**24**	ND	ND	ND								
N-Nitrosodiphenylamine		86-30-6	6.46	86.7	Type 4	86.7	Type 4														
Pentachlorophenol (PCP)		87-86-5	3.30	12.4	Type 4	12.4	Type 4														
Phenanthrene		85-01-8	110	173352	Type 4	100000	Type 4	**2.4**	ND		**1.3**	ND	ND	ND								
Phenol		108-95-2	400	400	Type 3	400	Type 3														
Pyrene		129-00-0	500	61320	Type 4	66655	Type 4														
Volatiles-mg/kg																					
1,1,1,2-Tetrachloroethane		630-20-6	7.00	9.83	Type 4	9.83	Type 4														
1,1,1-Trichloroethane		71-55-6	20.0	824	Type 4	824	Type 4	ND	ND	ND	**0.57**	ND	ND	ND	**0.12**	**0.016**	**0.015**	ND	ND	ND	**0.054**	ND
1,1,2,2-Tetrachloroethane		79-34-5	0.13	0.14	Type 4	0.14	Type 4														
1,1,2-Trichloroethane		79-00-5	0.50	3.33	Type 4	3.33	Type 4														
1,1-Dichloroethane		75-34-3	400	400	Type 3	400	Type 3	ND	ND	ND	**0.0081**	ND	ND	ND	**0.12**	**0.017**	ND	ND	ND	ND	**0.051**	ND
1,1-Dichloroethene		75-35-4	0.70	1.21	Type 4	24.27	Type 4	ND	ND	ND	**0.093**	ND	ND	ND	**0.0095**	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene (DCE)		75-35-4	0.70	1.21	Type 4	24.27	Type 4															
1,2,3-Trichloropropane		96-18-4	0.498	1.91	Type 4	4.00	Type 3															
1,2,4-Trichlorobenzene		120-82-1	10.8	10.8	Type 3	38.3	Type 4	**0.12**	**0.028**	ND	ND	ND	**0.008**	ND	**0.11**	**0.094**	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane		96-12-8	0.02	0.02	Type 3	0.02	Type 3															
1,2-Dibromoethane		106-93-4		N	N	N	N															
1,2-Dichlorobenzene		95-50-1	60.0	60.0	Type 3	231.0	Type 4	**0.034**	ND	ND	**0.57**	ND	ND	ND	**0.97**	**0.26**	ND	ND	ND	ND	**0.015**	ND
1,2-Dichloroethane		107-06-2	0.50	1.45	Type 4	1.45	Type 4								**0.01**	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane		78-87-5	0.50	0.53	Type 4	0.53	Type 4								**0.017**	ND	ND	ND	ND	ND	**0.0082**	ND
1,3-Dichlorobenzene		541-73-1	60.0	369	Type 4	369	Type 4	ND	ND	ND	ND	ND	ND	ND	**0.023**	**0.024**	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane		142-28-9		N	N	N	N															
1,4-Dichlorobenzene		106-46-7	7.50	7.5	Type 3	11.6	Type 4	ND	ND	ND	ND	ND	ND	ND	**0.048**	**0.046**	ND	ND	ND	ND	ND	ND
2-Butanone		78-93-3	200	200	Type 3	200	Type 3															
2-Chloroethyl vinyl Ether		110-75-8		N	N	N	N															
4-Methyl-2-pentanone		108-10-1	200	200	Type 3	200	Type 3															
Acetone		67-64-1	400	400	Type 3	400	Type 3	ND	ND	ND	ND	ND	ND	ND								
Benzene		71-43-2	0.50	1.23	Type 4	1.23	Type 4	ND	ND	ND	**0.027**	ND	ND	ND								
Bromodichloromethane		75-27-4		N	N	N	N															
Bromoform		75-25-2	8.00	8.0	Type 3	8.0	Type 3															
Bromomethane		74-83-9		N	N	N	N															
Carbon disulfide		75-15-0	400	400	Type 3	400	Type 3															
Carbon Tetrachloride		56-23-5		N	N	N	N															

Table 5
Historical Soil Analytical Data - Detected Constituents
Former Oxford Chemicals Property, Chamblee, Georgia

WSP 2008 Excavation Verification Samples																				
Location		Type 1	Non-Residential RRS				ETF-VER-57	ETF-VER-58	ETF-VER-58A	ETF-VER-59	ETF-VER-60	ETF-VER-61	ETF-VER-62	WWS-VER-63	WWS-VER-63A	WWS-VER-64	WWS-VER-65	WWS-VER-66	WWS-VER-68	WWS-VER-69	WWS-VER-70
Depth (feet bgs)	CAS NUMBER	RRS	SS Soil (0-2')		SB Soil (>2')		5'		9'		5'	5'	5'	5'	7'	10'	3'	3'	3'	3'	3'
Constituent Date Sampled		(mg/kg)	RRS	RRS Type	RRS	RRS Type	5/2/2008	5/2/2008	5/9/2008	5/2/2008	5/2/2008	5/2/2008	5/2/2008	5/2/2008	5/8/2008	5/5/2008	5/5/2008	5/5/2008	5/8/2008	5/8/2008	5/8/2008
Chlorobenzene	108-90-7	10.0	34.7	Type 4	34.7	Type 4	ND	ND	ND	ND	ND	ND	ND								
Chloroethane	75-00-3	1.00	1182	Type 4	1182	Type 4															
Chloroform	67-66-3		N	N	N	N															
Chloromethane	74-87-3		N	N	N	N															
cis-1,2-Dichloroethene	156-59-2	7.00	7.0	Type 3	7.0	Type 3	ND	**0.1**	ND	**0.54**	**0.026**	**0.016**	ND	**0.41**	**0.048**	**0.018**	ND	**0.031**	**0.08**	**0.054**	ND
cis-1,2-Dichloroethylene	156-59-2	7.00																			
Cyclohexane	110-82-7	20.0	3842	Type 4	3842	Type 4	ND	ND	ND	**0.071**	ND	ND	ND								
Dibromochloromethane	124-48-1		N	N	N	N															
Dibromomethane	74-95-3		N	N	N	N															
Dichlorodifluoromethane	75-71-8	46.5	75.0	Type 4	100.0	Type 3															
Ethylbenzene	100-41-4	70.0	128	Type 4	128	Type 4	ND	ND	ND	**15**	ND	ND	ND								
Hexachlorobutadiene	87-68-3		N	N	N	N															
Isopropylbenzene	98-82-8	21.9	720	Type 4	720	Type 4	ND	ND	ND	**1.6**	ND	ND	ND								
m&p-Xylene	1330-20-7						**0.017**	ND	ND	**94**	ND	ND	ND	**0.02**	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	0.50	5.05	Type 4	5.05	Type 4	ND	ND	ND	ND	ND	ND	ND	**1.1**	**0.11**	ND	ND	ND	ND	ND	ND
o-Xylene	1330-20-7						**0.015**	ND	ND	**38**	ND	ND	ND	**0.0094**	ND	ND	ND	ND	ND	ND	ND
Styrene	100-42-5	14.0	1118	Type 4	1118	Type 4															
Tetrachloroethene (PCE)	127-18-4	0.50	0.5	Type 3	9.41	Type 4	**0.1**	**0.92**	ND	**22**	**0.096**	**0.47**	**0.055**	**0.042**	**0.024**	**0.011**	**0.039**	**0.031**	**0.14**	ND	**0.015**
Tetrachloroethylene	127-18-4	0.50	0.50	Type 3	9.41	Type 4															
Toluene	108-88-3	100	100	Type 3	676	Type 4	ND	ND	ND	**5.9**	ND	ND	ND								
trans-1,2-Dichloroethene	156-60-5	10.0	10.0	Type 3	10.0	Type 3	ND	ND	ND	ND	ND	ND	ND								
1,3-Dichloropropene (trans-1,3-Dichloropropene)	542-75-6		N	N	N	N															
Trichloroethene (TCE)	79-01-6	0.50	0.50	Type 3	0.50	Type 3	**0.0061**	**0.91**	ND	**45**	**0.019**	**0.036**	ND	**0.056**	**0.015**	**0.035**	**0.0066**	ND	**0.013**	ND	ND
Trichloroethylene	79-01-6	0.50	0.50	Type 3	0.50	Type 3															
Trichlorofluoromethane	75-69-4		N	N	N	N															
Vinyl Chloride	75-01-4	0.20	0.20	Type 3	0.20	Type 3															
Xylene (total)	1330-20-7	1,000	1575	Type 4	1575	Type 4	**0.032**	ND	ND	**132**	ND	ND	ND	**0.0294**	ND	ND	ND	ND	ND	ND	ND
Pesticides - mg/kg																					
4,4' -DDD	72-54-8	0.660	129	Type 4	129	Type 4															
4,4' -DDE	72-55-9	0.660	91.4	Type 4	91.4	Type 4															
4,4' -DDT	50-29-3	0.660	131	Type 4	131	Type 4															
Aldrin	309-00-2	0.660	3.37	Type 4	55.78	Type 4															
alpha-Endosulfan (Endosulfan I)	959-98-8	10.0	3890	Type 4	3890	Type 4															
alpha-BHC	319-84-6	0.660	1.92	Type 4	1.92	Type 4															
beta-BHC	319-85-7	0.660	1.92	Type 4	1.92	Type 4															
beta-Endosulfan (Endosulfan II)	33213-65-9	10.0	3890	Type 4	3890	Type 4															
gamma-Chlordane	57-74-9	9.20	27.0	Type 4	27.0	Type 4															
Chlordane	57-74-9	9.20	27.0	Type 4	27.0	Type 4															
delta-BHC	319-86-8	25.0	25.0	Type 3	25.0	Type 3															
Dieldrin (delta-Benzenehexachloride)	60-57-1	0.660	0.66	Type 3	0.66	Type 3															
Endosulfan sulfate	1031-07-8	1.65	2418.46	Type 4	2418.46	Type 4															
Endrin	72-20-8	10.0	247	Type 4	247	Type 4															
Endrin ketone	72-20-8	10.0	119.33	Type 4	119.33	Type 4															
Endrin aldehyde	7421-93-4	10.0	40.23	Type 4	40.23	Type 4															
Heptachlor	76-44-8		N	N	N	N															
Heptachlor epoxide	1024-57-3	1.64	1.65	Type 3	1.65	Type 3															
Lindane	58-89-9	0.660	0.68	Type 4	0.68	Type 4															
Methoxychlor	72-43-5	10.0	5498	Type 4	5498	Type 4															
Toxaphene	8001-35-2		N	N	N	N															
Polychlorinated biphenyls (PCBs) - mg/kg																					
PCB-1221	11104-28-2		N	N	N	N															
PCB-1232	11141-16-5		N	N	N	N															
PCB-1242	53469-21-9		N	N	N	N															
PCB-1248	12672-29-6		N	N	N	N															
PCB-1254	11097-69-1		N	N	N	N															
PCB-1260	11096-82-5	1.55	3.5	Type 4	69.9	Type 4															

Notes:

NA Not Analyzed
NF Sample Location Not Found. This sample location coud not be located with the information available at the time this
? Exact sample depth unknown. Sample depth estimated based upon nearby data and/or information on figures assoc
U Analyte undetected at detection limit shown
J Dectected below the sample quantitation limit of instrument
B Analyte also detected in blanks
P Analyte concentration confirmed by separate G2/M5 analysis

Denotes constituent concentration exceeds the Type 3 Risk Reduction Standard for soil.
Denotes concentration above the Type 1 RRS (delineation standard)
Denotes non-detect value above the higher of the Type 3 or Type 4 RRS
Denotes sample location was remediated by excavation by WSP in 2008 under contract to the Client.
Blank — Denotes the assumption that the constituent was not detected at the method PQL. Data taken from historical tables
Denotes sample was collected at or beneath the groundwater table.
N — Constituent not detected onsite

Table 6
Historical Groundwater Analytical Data - SVOCs
Former Oxford Chemicals Property - Chamblee, Georgia

Analyte (ug/L)	Type 1 Delineation RRS (ug/L)	EW-B6 2/7/11	EW-D3 2/7/11	EW-D5 2/7/11	EW-D7 2/7/11	EW-D9 2/7/11	DUP 10311 2/3/11	EW-A1 2/3/11	EW-A2 2/3/11	EW-A3 2/3/11	EW-B3 2/3/11	MW-5 2/3/11	MW-7 2/3/11
1,1´-Biphenyl		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	4000.0	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4,6-Trichlorophenol	30.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	20.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	700.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**15**	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	1.7	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	40.0	10 U	10 U	10 U	10 U	10 U	10 U	**29**	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		10 U	10 U	10 U	10 U	10 U	10 U	**400**	**220**	**81**	10 U	**12**	10 U
2-Methylphenol	NA	10 U	10 U	10 U	10 U	10 U	10 U	**32**	**49**	10 U	10 U	10 U	10 U
2-Nitroaniline		25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Nitrophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3´-Dichlorobenzidine		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline		25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4,6-Dinitro-2-methylphenol		25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Bromophenyl phenyl ether		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	NA	10 U	10 U	10 U	10 U	10 U	10 U	**100**	**52**	10 U	10 U	10 U	10 U
4-Nitroaniline		25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
4-Nitrophenol		25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Acenaphthene	2000.0	10 U	10 U	10 U	10 U	10 U	10 U	**10**	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetophenone	4000.0	10 U	10 U	10 U	10 U	10 U	10 U	**22**	10 U	10 U	10 U	10 U	10 U
Anthracene	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Atrazine		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benz(a)anthracene	0.1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzaldehyde		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0.2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.2	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**10**	10 U	10 U	10 U
Benzo(g,h,i)perylene	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroisopropyl)ether	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate	6.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	330.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	4000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	700.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	0.3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	1000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	1000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	20.0	10 U	10 U	10 U	**29**	10 U	10 U	**560**	**550**	**39**	10 U	10 U	10 U
Nitrobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	1.0	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenanthrene	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	4000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**10**	10 U	10 U	10 U	10 U
Pyrene	1000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Denotes concentration above the Type 1 RRS (delineation standard)
Not detected in 2003, 2011, or 2012 sampling events

Table 6
Historical Groundwater Analytical Data - Pesticides
Former Oxford Chemicals Property - Chamblee, Georgia

Analyte (ug/L)	Type 1 Delineation RRS (ug/L)	BH-19 2/3/11	BH-19 6/14/11	BH-19 2/16/12	BH-19 8/14/12	EW-B3 2/3/11	EW-B6 2/7/11	EW-D3 2/7/11	EW-D5 2/7/11	EW-D7 2/7/11	EW-D9 2/7/11	DUP 10311 2/3/11	EW-A1 2/3/11	EW-A2 2/3/11	EW-A3 2/3/11	MW-5 2/3/11	MW-7 2/3/11	MW-12 2/7/11	MW-12 6/10/11	MW-12 2/17/12	DUP1 (MW-12) 2/17/12	MW-12 8/13/12	BH-11 2/2/11	BH-11 6/16/11	BH-11 8/15/12	BH-17 2/2/11	BH-17 6/15/11	BH-17 2/17/12
4,4´-DDD	0.1	0.10 U	0.1 U	0.1 U	0.1 U	**0.63**	0.10 U	0.10 U	**1.50**	0.10 U	0.10 U	0.10 U	**1.50**	**0.63**	**0.19**	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	dry	0.10 U	0.1 U	0.1 U
4,4´-DDE	0.1	0.10 U	0.1 U	0.1 U	0.1 U	**0.12**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.19**	**0.13**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	dry	0.10 U	0.1 U	0.1 U
4,4´-DDT	0.1	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	dry	0.10 U	0.1 U	0.1 U
Aldrin	1.7	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.050 U	0.05 U	dry	0.05 U	0.05 U	0.05 U
alpha-BHC	1.7	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.050 U	0.05 U	dry	0.05 U	0.05 U	0.05 U
alpha-Chlordane		0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.13**	**0.20**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.050 U	0.05 U	dry	0.05 U	0.05 U	0.05 U
beta-BHC	1.7	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.050 U	0.05 U	dry	0.05 U	0.05 U	0.05 U
delta-BHC	NA	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.050 U	NA	dry	0.05 U	0.05 U	0.05 U
Dieldrin	0.02	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		0.1 U	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.1 U	0.1 U
alpha-Endosulfan (Endosulfan I)	2.0	0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.050 U	NA	dry	0.05 U	0.05 U	0.05 U
beta-Endosulfan (Endosulfan II)	2.0	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		0.1 U	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.1 U	0.1 U
Endosulfan sulfate	0.1	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		0.1 U	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.1 U	0.1 U
Endrin	2.0	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		0.1 U	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.1 U	0.1 U
Endrin aldehyde	0.1	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		0.1 U	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.1 U	0.1 U
Endrin ketone	0.1	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		0.1 U	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.1 U	0.1 U
gamma-BHC		0.050 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.050 U	NA	dry	0.05 U	0.05 U	0.05 U
gamma-Chlordane		0.050 U		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.10**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.050 U		dry	0.05 U		0.05 U
Heptachlor		0.050 U		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.050 U		dry	0.05 U		0.05 U
Heptachlor epoxide	0.2	0.050 U		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	0.050 U		dry	0.05 U		0.05 U
Lindane																												
Methoxychlor	40.0	0.500 U		0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.5 U	0.5 U	0.5 U	0.500 U		dry	0.50 U		0.5 U
Toxaphene		5.0 U		5 U	5 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U		5 U	5 U	5 U	5.0 U		dry	5.00 U		5 U

Denotes concentration above the Type 1 RRS (delineation standard)
Not detected in 2003, 2011, or 2012 sampling events

Table 6
Historical Groundwater Analytical Data - Pesticides
Former Oxford Chemicals Property - Chamblee, Georgia

	Type 1 Delineation RRS (ug/L)	BH-17 8/15/12	BH-20 2/2/11	BH-20 6/13/11	BH-20 2/16/12	BH-20 8/15/12	BH-21 2/2/11	BH-21 6/13/11	BH-21 2/16/12	BH-21 8/15/12	BH-24 2/2/11	BH-24 6/14/11	BH-24 2/16/12	BH-24 8/14/12	BH-6 2/2/11	BH-6 6/16/11	BH-6 8/15/12	BH-7 2/2/11	BH-7 6/16/11	BH-7 8/15/12	MW-1 2/2/11	MW-1 2/16/12	MW-1 8/14/12
Analyte (ug/L)																							
4,4´-DDD	0.1	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	dry	0.10 U	0.1 U	dry	0.10 U	0.1 U	0.1 U
4,4´-DDE	0.1	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	dry	0.10 U	0.1 U	dry	0.10 U	0.1 U	0.1 U
4,4´-DDT	0.1	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.10 U	0.1 U	dry	0.10 U	0.1 U	dry	0.10 U	0.1 U	0.1 U
Aldrin	1.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	dry	0.05 U	0.05 U	dry	0.05 U	0.05 U	0.05 U
alpha-BHC	1.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	dry	0.05 U	0.05 U	dry	0.05 U	0.05 U	0.05 U
alpha-Chlordane		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	dry	0.05 U	0.05 U	dry	0.05 U	0.05 U	0.05 U
beta-BHC	1.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	dry	**0.21**	0.05 U	dry	0.05 U	0.05 U	0.05 U
delta-BHC	NA	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	dry	0.05 U	0.050 U	dry	0.05 U	0.05 U	0.05 U
Dieldrin	0.02	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.10 U	dry	0.10 U	0.1 U	0.1 U
alpha-Endosulfan (Endosulfan I)	2.0	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	dry	0.05 U	0.050 U	dry	0.05 U	0.05 U	0.05 U
beta-Endosulfan (Endosulfan II)	2.0	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.10 U	dry	0.10 U	0.1 U	0.1 U
Endosulfan sulfate	0.1	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.10 U	dry	0.10 U	0.1 U	0.1 U
Endrin	2.0	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.10 U	dry	0.10 U	0.1 U	0.1 U
Endrin aldehyde	0.1	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.10 U	dry	0.10 U	0.1 U	0.1 U
Endrin ketone	0.1	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	0.10 U	0.1 U	0.1 U	0.10 U	NA	0.1 U	0.1 U	0.10 U	NA	dry	0.10 U	0.10 U	dry	0.10 U	0.1 U	0.1 U
gamma-BHC		0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	NA	dry	0.05 U	0.050 U	dry	0.05 U	0.05 U	0.05 U
gamma-Chlordane		0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	dry	0.05 U	NA	dry	0.05 U	0.05 U	0.05 U
Heptachlor		0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	dry	0.05 U	NA	dry	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.2	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U		0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	dry	0.05 U	NA	dry	0.05 U	0.05 U	0.05 U
Lindane																							
Methoxychlor	40.0	0.5 U	0.50 U		0.5 U	0.5 U	0.50 U		0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.5 U	dry	0.50 U	NA	dry	0.50 U	0.5 U	0.5 U
Toxaphene		5 U	5.00 U		5 U	5 U	5.00 U		5 U	5 U	5.00 U	NA	5 U	5 U	5.00 U	5 U	dry	5.00 U	NA	dry	5.00 U	5 U	5 U

Denotes concentrati
Not detected in 200

Table 6
Historical Groundwater Analytical Data - VOCs
Former Oxford Chemicals Property - Chamblee, Georgia

Analyte (ug/L)	Type 1 Delineation RRS (ug/L)	BH-6 2/2/11	BH-6 6/16/11	BH-6 2/22/12	BH-6 8/15/12	BH-7 2/2/11	BH-7 6/16/11	BH-7 2/22/12	BH-7 8/15/12	BH-9 2/1/11	BH-10 2/1/11	BH-11 2/2/11	BH-11 6/16/11	BH-11 2/22/12	BH-11 8/15/12	BH-12 2/3/11	BH-13 2/3/11	BH-14 2/3/11	BH-17 2/2/11	BH-17 6/15/11
1,1,1-Trichloroethane	200.0	**15**	**15**	5 U	dry	**33000**	**44000**	**30000**	dry	**810**	**480**	5 U	5 U	**8.2**	dry	5 U	5 U	**13**	5 U	**390**
1,1,2,2-Tetrachloroethane	DL	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	4000.0	**16**	**16**	5 U	dry	**1700**	**2700**	**2000**	dry	**72**	**16**	**120**	**120**	**180**	dry	5 U	5 U	**49**	**6.6**	**420**
1,1-Dichloroethene	7.0	5 U	5 U	5 U	dry	**2100**	**2700**	**1300**	dry	**29**	**12**	**7.8**	**15**	**6.6**	dry	5 U	5 U	5 U	5 U	**140**
1,2,4-Trichlorobenzene	70.0	5 U	5 U	5 U	dry	**610** E	**1100** E	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane	0.2	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	600.0	5 U	5 U	5 U	dry	**38**	**47**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	600.0	5 U	5 U	5 U	dry	**6.2**	**8.5**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	75.0	5 U	5 U	5 U	dry	**64**	**75**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
2-Butanone	2000.0	50 U	50 U	50 U	dry	50 U	50 U	2500 U	dry	50 U	50 U	50 U	50 U	50 U	dry	50 U	50 U	50 U	50 U	50 U
2-Hexanone		10 U	10 U	10 U	dry	10 U	10 U	500 U	dry	10 U	10 U	10 U	10 U	10 U	dry	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	2000.0	10 U	10 U	10 U	dry	10 U	10 U	500 U	dry	10 U	10 U	10 U	10 U	10 U	dry	10 U	10 U	10 U	10 U	10 U
Acetone	4000.0	50 U	50 U	50 U	dry	50 U	50 U	2500 U	dry	50 U	50 U	50 U	50 U	50 U	dry	50 U	50 U	50 U	50 U	50 U
Benzene	5.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Bromoform	80.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Bromomethane		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	4000.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	100.0	5 U	5 U	5 U	dry	**14**	**15**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	**6.7**
Chloroethane	DL	10 U	10 U	10 U	dry	**170**	**100**	500 U	dry	10 U	10 U	10 U	10 U	10 U	dry	10 U	10 U	10 U	10 U	**120**
Chloroform		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Chloromethane		10 U	10 U	10 U	dry	10 U	10 U	500 U	dry	10 U	10 U	10 U	10 U	10 U	dry	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	70.0	5 U	5 U	5 U	dry	**280** E	**570** E	**510**	dry	**7.9**	5 U	**50**	**52**	**29**	dry	5 U	5 U	5 U	5 U	**320**
cis-1,3-Dichloropropene		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Cyclohexane	NA	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	1000.0	10 U	10 U	10 U	dry	10 U	10 U	500 U	dry	10 U	10 U	10 U	10 U	10 U	dry	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	700.0	5 U	5 U	5 U	dry	**11**	**15**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Freon-113		10 U	10 U	10 U	dry	10 U	10 U	500 U	dry	10 U	10 U	10 U	10 U	10 U	dry	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene	DL	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
m,p-Xylene		5 U	5 U	5 U	dry	**24**	**40**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Methyl acetate		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
o-Xylene		5 U	5 U	5 U	dry	**16**	**25**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Styrene	100.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5.0	5 U	5 U	5 U	dry	**6800**	**12000**	**5400**	dry	**5.4**	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	**13**
Toluene	1000.0	5 U	5 U	5 U	dry	**18**	**21**	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100.0	5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	**9.6**
trans-1,3-Dichloropropene		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5.0	5 U	5 U	5 U	dry	**1000**	**1500**	**4100**	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Trichlorofluoromethane		5 U	5 U	5 U	dry	5 U	5 U	250 U	dry	5 U	5 U	5 U	5 U	5 U	dry	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	2.0	2 U	2 U	2 U	dry	**8.9**	**4.9**	100 U	dry	**2.9**	2 U	**2.4**	**3.4**	2 U	dry	2 U	2 U	2 U	2 U	**11**

Denotes concentration above the Type 1 RRS (delineation standard)
Not detected in 2003, 2011, or 2012 sampling events

Table 6
Historical Groundwater Analytical Data - VOCs
Former Oxford Chemicals Property - Chamblee, Georgia

Analyte (ug/L)	Type 1 Delineation RRS (ug/L)	BH-17 2/17/12	BH-17 8/15/12	BH-18 2/1/11	BH-19 2/3/11	BH-19 6/14/11	BH-19 2/16/12	BH-19 8/14/12	BH-20 2/2/11	BH-20 6/13/11	BH-20 2/16/12	BH-20 8/15/12	BH-21 2/2/11	BH-21 6/13/11	BH-21 2/16/12	BH-21 8/15/12	BH-22 1/31/11	BH-23 1/31/11	DUP 01211 1/31/11	BH-24 2/2/11	BH-24 6/14/11
1,1,1-Trichloroethane	200.0	620	850	1600	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	220	37	38	5 U	5 U
1,1,2,2-Tetrachloroethane	DL	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	4000.0	570	440	990	19	22	12	5.6	34	20	17	11	10	7.6	10	7.1	600	250	260	49	54
1,1-Dichloroethene	7.0	230	240	360	5 U	5 U	5 U	5 U	16	9.9	7.2	5 U	5 U	5 U	5 U	5 U	440	150	160	15	21
1,2,4-Trichlorobenzene	70.0	5.6	8.3	39	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	11	5 U	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane	0.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	600.0	5 U	5 U	5 U	5.4	6.4	5 U	5 U	12	14	8.1	5 U	5 U	5 U	5 U	5 U	3200	350	390	15	16
1,2-Dichloroethane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	600.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	80	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	75.0	5 U	5 U	12	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	310	20	20	5 U	5.1
2-Butanone	2000.0	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	2000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	4000.0	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	80.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	4000.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	100.0	8.7	10	19	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	19	260	260	28	16
Chloroethane	DL	190	130	550	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	110	10 U	10 U
Chloroform		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	70.0	500	380	410	180	110	88	38	840	600	340	210	160	120	92	58	14000	8700	9000	1100	1100
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cyclohexane	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	1000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	700.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.1	5 U	5 U	5 U	5 U
Freon-113		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene	DL	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m,p-Xylene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	26	5 U	5 U	5 U	5 U
Methyl acetate		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
o-Xylene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	20	5 U	5 U	5 U	5 U
Styrene	100.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5.0	19	19	28	36	53	27	20	20	20	7.8	5.1	9.8	14	17	14	64	200	230	170	270
Toluene	1000.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	34	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100.0	13	10	5 U	7.8	11	5 U	5 U	15	11	8.4	5 U	5.4	5.1	5 U	5 U	140	91	97	21	28
trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5.0	5 U	5.2	28	90	77	44	27	120	84	49	33	24	21	48	48	510	230	230	210	220
Trichlorofluoromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	2.0	22	19	20	19	13	12	7.4	23	18	16	9.8	3.9	5.7	5.2	4.3	340	170	170	46	41

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Not detected in 200

Table 6
Historical Groundwater Analytical Data - VOCs
Former Oxford Chemicals Property - Chamblee, Georgia

Analyte (ug/L)	Type 1 Delineation RRS (ug/L)	BH-24 2/16/12	BH-24 8/14/12	MW-A 2/1/11	EW-C6 1/28/11	EW-C7 1/28/11	EW-C8 1/28/11	MW-1 2/2/11	MW-1 6/13/11	MW-1 2/16/12	MW-1 8/14/12	MW-2 1/31/11	MW-5 1/27/11	MW-6 1/27/11	MW-7 1/28/11	MW-9 1/28/11	MW-11 1/28/11	MW-12 2/7/2011	MW-12 6/10/11	MW-12 2/17/12	DUP1 (MW-12) 2/17/12
1,1,1-Trichloroethane	200.0	5 U	5 U	**600**	**5.1**	5 U	**35**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	DL	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	4000.0	**31**	**22**	**47**	**8.1**	5 U	**140**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**46**	**26**	**18**	**18**	**25**	**25**
1,1-Dichloroethene	7.0	**7.1**	**5.6**	**120**	5 U	5 U	**88**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**29**	**23**	**30**	**52**	**130**	**120**
1,2,4-Trichlorobenzene	70.0	5 U	5 U	**18**	5 U	5 U	**7.4**	5 U	5 U	5 U	5 U	5 U	**190**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane	0.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	600.0	**9.4**	**7.6**	5 U	5 U	5 U	**610**	5 U	5 U	5 U	5 U	5 U	**90**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**12**	**11**	**12**	**12**
1,2-Dichloropropane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	600.0	5 U	5 U	5 U	5 U	5 U	**23**	5 U	5 U	5 U	5 U	5 U	**5.4**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	75.0	5 U	5 U	5 U	5 U	5 U	**71**	5 U	5 U	5 U	5 U	5 U	**98**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	2000.0	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	2000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	4000.0	50 U	50 U	50 U	50 U	50 U	50 U	50 U	**64**	**650**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	80.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	4000.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	100.0	**8.9**	**12**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**5.4**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	DL	10 U	10 U	**19**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	70.0	**540**	**310**	5 U	**790**	5 U	**7000**	5 U	5 U	5 U	5 U	5 U	**46**	5 U	**9**	**13**	**56**	**190**	**430**	**270**	**260**
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cyclohexane	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	1000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	700.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Freon-113		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene	DL	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m,p-Xylene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl acetate		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
o-Xylene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	100.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5.0	**78**	**83**	**16**	**430**	5 U	**29**	5 U	5 U	5 U	5 U	5 U	**14**	5 U	5 U	**8.8**	**85**	5 U	5 U	**5.6**	**5**
Toluene	1000.0	5 U	5 U	5 U	5 U	5 U	**9.7**	5 U	**640**	**1400**	**140**	5 U	5 U	**12**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100.0	**11**	**8.5**	5 U	5 U	5 U	**80**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**12**	**12**	**6.7**	**6.5**
trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5.0	**90**	**100**	5 U	**200**	**5.3**	**120**	5 U	5 U	5 U	5 U	5 U	**7.4**	5 U	**49**	**17**	**39**	**260**	**110**	**610**	**670**
Trichlorofluoromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	2.0	**19**	**18**	2 U	**2.4**	2 U	**110**	2 U	2 U	2 U	2 U	2 U	**14**	2 U	2 U	2 U	2 U	**60**	**180**	**79**	**81**

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Table 6
Historical Groundwater Analytical Data - VOCs
Former Oxford Chemicals Property - Chamblee, Georgia

Analyte (ug/L)	Type 1 Delineation RRS (ug/L)	MW-12 8/13/12	EW-B3 1/27/11	EW-B4 1/27/11	EW-B5 1/27/11	EW-B6 1/27/11	EW-D3 1/27/11	EW-D5 1/27/11	EW-D7 1/27/11	EW-D9 1/27/11	DUP10111 1/26/11	EW-A1 1/26/11	EW-A2 1/26/11	EW-A3 1/26/11	EW-A4 1/26/11	EW-A6 1/26/11	EW-A7 1/26/11	EW-A8 1/26/11	EW-A9 1/26/11	EW-A10 1/26/11
1,1,1-Trichloroethane	200.0	5 U	5 U	5 U	**6.8**	5 U	5 U	5 U	**12**	**5.2**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**19**	**25**
1,1,2,2-Tetrachloroethane	DL	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	4000.0	**16**	5 U	5 U	**42**	5 U	5 U	5 U	5 U	5 U	**31**	**6.4**	5 U	5 U	**12**	5 U	**34**	**26**	**16**	**53**
1,1-Dichloroethene	7.0	**47**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**14**	5 U	5 U	5 U	5 U	5 U	**27**	**16**	**18**	**26**
1,2,4-Trichlorobenzene	70.0	5 U	5 U	**210**	**550**	5 U	5 U	**43**	5 U	5 U	5 U	**89**	**290**	**6.3**	**66**	5 U	5 U	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane	0.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	600.0	5 U	5 U	**330**	**390**	5 U	5 U	**160**	5 U	5 U	**24**	**550**	**860**	5 U	**33**	5 U	**12**	**32**	**61**	**46**
1,2-Dichloroethane	5.0	**9.3**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	600.0	5 U	5 U	**8.5**	**7.7**	5 U	5 U	**26**	5 U	5 U	5 U	**39**	**28**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	75.0	5 U	5 U	**22**	**19**	5 U	5 U	**49**	5 U	5 U	5 U	**240**	**83**	5 U	5 U	5 U	5 U	5 U	**6**	**7.2**
2-Butanone	2000.0	50 U	50 U	**98**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	2000.0	10 U	10 U	**240**	**37**	10 U	10 U	10 U	10 U	10 U	10 U	**96**	**180**	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	4000.0	50 U	50 U	**56000**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	**1300**	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	5.0	5 U	5 U	**18**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**7.4**	**9.9**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	80.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	4000.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	100.0	5 U	5 U	5 U	5 U	5 U	5 U	**25**	5 U	5 U	5 U	**79**	**28**	5 U	5 U	5 U	5 U	5 U	5 U	**6.3**
Chloroethane	DL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	70.0	**280**	5 U	5 U	**76**	5 U	5 U	**36**	5 U	5 U	**540**	**180**	**10**	5 U	**20**	**22**	**420**	**480**	**240**	**1900**
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cyclohexane	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	1000.0	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	700.0	5 U	5 U	**5.6**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**21**	**25**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Freon-113		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene	DL	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m,p-Xylene		5 U	5 U	**22**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**81**	**93**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl acetate		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5.0	5 U	5 U	5 U	**6.1**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
o-Xylene		5 U	5 U	**21**	**7.2**	5 U	5 U	5 U	5 U	5 U	5 U	**58**	**87**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	100.0	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**16**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5.0	5 U	5 U	5 U	**7.3**	5 U	5 U	**31**	**110**	**30**	**33**	5 U	**7.3**	5 U	5 U	**8**	**100**	**45**	**55**	**140**
Toluene	1000.0	5 U	5 U	**290**	5 U	5 U	**8.8**	5 U	23	5 U	5 U	**8300**	**580**	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100.0	**6.8**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	16
trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5.0	**300**	5 U	5 U	**32**	5 U	5 U	**19**	**28**	**7.3**	**47**	5 U	5 U	5 U	**9.1**	**28**	**60**	**48**	**57**	**200**
Trichlorofluoromethane		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	2.0	**120**	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**5**	2 U	2 U	2 U	2 U	2 U	2 U	**4.8**	**3.2**	**20**

Denotes concentrati
Not detected in 200

Table 6
Historical Groundwater Analytical Data - PCBs
Former Oxford Chemicals Property - Chamblee, Georgia

	Type 1 Delineation RRS (ug/L)	BH-22 1/31/11	BH-23 1/31/11	MW-2 1/31/11	MW-12 2/7/11	MW-12 6/10/11	BH-19 2/3/11	BH-19 6/14/11	BH-19 2/16/12	BH-19 8/14/12	BH-11 2/2/11	BH-11 6/16/11	BH-11 8/15/12	BH-17 2/2/11	BH-17 6/15/11	BH-17 2/17/12	BH-17 8/15/12	BH-20 2/2/11	BH-20 6/13/11
Analyte (ug/L)																			
Aroclor 1016	0.5				0.50 U	NA	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	NA	dry	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.50 U
Aroclor 1221					0.50 U	NA	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	NA	dry	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.50 U
Aroclor 1232					0.50 U	NA	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	NA	dry	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.50 U
Aroclor 1242					0.50 U	NA	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	NA	dry	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.50 U
Aroclor 1248					0.50 U	NA	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	NA	dry	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.50 U
Aroclor 1254					0.50 U	NA	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	NA	dry	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.50 U
Aroclor 1260	0.5				0.50 U	NA	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	NA	dry	0.50 U	NA	0.5 U	0.5 U	0.50 U	0.50 U

Denotes concentration above the Type 1 RRS (delineation standard)
Not detected in 2003, 2011, or 2012 sampling events

Table 6
Historical Groundwater Analytical Data - PCBs
Former Oxford Chemicals Property - Chamblee, Georgia

Analyte (ug/L)	Type 1 Delineation RRS (ug/L)	BH-20 2/16/12	BH-20 8/15/12	BH-21 2/2/11	BH-21 6/13/11	BH-21 2/16/12	BH-21 8/15/12	BH-24 2/2/11	BH-24 6/14/11	BH-6 2/2/11	BH-6 6/16/11	BH-6 8/15/12	BH-7 2/2/11	BH-7 6/16/11	BH-7 8/15/12	MW-1 2/2/11	MW-1 6/13/11
Aroclor 1016	0.5	0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	NA	0.50 U	NA	dry	**5.70**	0.5 U	dry	0.50 U	NA
Aroclor 1221		0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	NA	0.50 U	NA	dry	0.50 U	0.5 U	dry	0.50 U	NA
Aroclor 1232		0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	NA	0.50 U	NA	dry	0.50 U	**8**	dry	0.50 U	NA
Aroclor 1242		0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	NA	0.50 U	NA	dry	0.50 U	0.5 U	dry	0.50 U	NA
Aroclor 1248		0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	NA	0.50 U	NA	dry	0.50 U	0.5 U	dry	0.50 U	NA
Aroclor 1254		0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	NA	0.50 U	NA	dry	0.50 U	0.5 U	dry	0.50 U	NA
Aroclor 1260	0.5	0.5 U	0.5 U	0.50 U	NA	0.5 U	0.5 U	0.50 U	NA	0.50 U	NA	dry	**2.10**	**1.4**	dry	0.50 U	NA

Denotes concentrati
Not detected in 200

Table 7
Non-Residential Soil RRS
Based on Groundwater Analytical Results
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Constituent Name	CAS #	Groundwater RRS (mg/L)	Groundwater RRS Type	Max Detected Concentration* (mg/L)	Detected Above RRS?	Leachate Model DAF** (unitless)	SS Soil (0'-2) RRS (mg/kg)	SS Soil (0'-2) RRS Type	SB Soil (>2') RRS (mg/kg)	SB Soil (>2') RRS Type
Volatile Organic Compounds										
Acetone	67-64-1	68.8	Type 4	56	No	20	400	Type 3	400	Type 3
Benzene	71-43-2	0.020	Type 4	0.018	No	20	1.23	Type 4	1.23	Type 4
Bromoform	75-25-2	0.14	Type 4	--	--	20	8.0	Type 3	8.0	Type 3
2-Butanone	78-93-3	25.6	Type 4	0.098	No	20	200	Type 3	200	Type 3
Carbon Disulfide	75-15-0	4.0	Type 3	--	--	20	400	Type 3	400	Type 3
Chlorobenzene	108-90-7	0.35	Type 4	0.26	No	20	34.7	Type 4	34.7	Type 4
Chloroethane	75-00-3	87.6	Type 4	0.55	No	20	1,182	Type 4	1,182	Type 4
Cyclohexane	110-82-7	52.4	Type 4	--	--	20	3,842	Type 4	3,842	Type 4
1,2-Dibromo-3-Chloropropane	96-12-8	0.0002	Type 3	--	--	20	0.02	Type 3	0.02	Type 3
1,2-Dichlorobenzene	95-50-1	1.47	Type 4	3.2	Yes	1	60.0	Type 3	231	Type 4
1,3-Dichlorobenzene	541-73-1	1.47	Type 4	0.08	No	20	369	Type 4	369	Type 4
1,4-Dichlorobenzene	106-46-7	0.075	Type 3	0.31	Yes	1	7.5	Type 3	11.6	Type 4
Dichlorodifluoromethane	75-71-8	1.61	Type 4	--	--	20	75.0	Type 4	100	Type 3
1,1-Dichloroethane	75-34-3	4.0	Type 3	1.7	No	20	400	Type 3	400	Type 3
1,2-Dichloroethane	107-06-2	0.073	Type 4	0.0093	No	20	1.45	Type 4	1.45	Type 4
1,1-Dichloroethene	75-35-4	1.30	Type 4	2.1	Yes	1	1.21	Type 4	24.3	Type 4
cis-1,2-dichloroethene	156-59-2	0.20	Type 4	14	Yes	1	7.0	Type 3	7.0	Type 3
trans-1,2-dichloroethene	156-60-5	0.42	Type 4	0.14	No	20	10.0	Type 3	10.0	Type 3
1,2-Dichloropropane	78-87-5	0.019	Type 4	--	--	20	0.53	Type 4	0.53	Type 4
Ethylbenzene	100-41-4	0.70	Type 3	0.025	No	20	128	Type 4	128	Type 4
Isopropylbenzene (cumene)	98-82-8	2.54	Type 4	--	--	20	720	Type 4	720	Type 4
4-Methyl-2-pentanone	108-10-1	6.24	Type 4	0.24	No	20	200	Type 3	200	Type 3
Methylene chloride	75-09-2	0.39	Type 4	0.0061	No	20	5.05	Type 4	5.05	Type 4
Styrene	100-42-5	6.12	Type 4	0.016	No	20	1,118	Type 4	1,118	Type 4
1,1,1,2-Tetrachloroethane	630-20-6	0.25	Type 4	--	--	20	9.83	Type 4	9.83	Type 4
1,1,2,2-Tetrachloroethane	79-34-5	0.0033	Type 4	--	--	20	0.14	Type 4	0.14	Type 4
Tetrachloroethylene	127-18-4	0.22	Type 4	6.8	Yes	1	0.50	Type 3	9.41	Type 4
Toluene	108-88-3	6.89	Type 4	8.3	Yes	1	100	Type 3	676	Type 4
1,2,4-Trichlorobenzene	120-82-1	0.07	Type 3	0.61	Yes	1	10.8	Type 3	38.3	Type 4
1,1,1-Trichloroethane	71-55-6	36.1	Type 4	33.0	No	20	824	Type 4	824	Type 4
1,1,2-Trichloroethane	79-00-5	0.117	Type 4	--	--	20	3.33	Type 4	3.33	Type 4
Trichloroethylene	79-01-6	0.013	Type 4	1	Yes	1	0.50	Type 3	0.50	Type 3
1,2,3-Trichloropropane	96-18-4	0.04	Type 3	--	--	20	1.91	Type 4	4.0	Type 3
Vinyl Chloride	75-01-4	0.0037	Type 4	0.34	Yes	1	0.20	Type 3	0.20	Type 3
Xylenes	1330-20-7	10.0	Type 3	0.18	No	20	1,575	Type 4	1,575	Type 4
Semivolatile Organic Compounds										
Acenaphthene	83-32-9	6.13	Type 4	0.01	No	20	12,355	Type 4	12,355	Type 4
Acenaphthylene	208-96-8	30.7	Type 4	--	--	20	84,969	Type 4	84,969	Type 4
Acetophenone	98-86-2	10.2	Type 4	0.022	No	20	400	Type 3	400	Type 3
Anthracene	120-12-7	30.7	Type 4	--	--	20	200,762	Type 4	100,000	Type 4
Benzo(a)anthracene	56-55-3	0.0014	Type 4	--	--	20	78.4	Type 4	101	Type 4
Benzo(a)pyrene	50-32-8	0.0002	Type 3	--	--	20	7.84	Type 4	47.0	Type 4
Benzo(b)fluoranthene	205-99-2	0.0014	Type 4	0.01	Yes	1	17.0	Type 4	341	Type 4
Benzo(g,h,i)perylene	191-24-2	30.7	Type 4	--	--	20	613,200	Type 4	100,000	Type 4
Benzo(k)fluoranthene	207-08-9	0.0021	Type 4	--	--	20	496	Type 4	496	Type 4
bis(2-chloroisopropyl)ether	108-60-1	0.041	Type 4	--	--	20	171	Type 3	171	Type 3
bis(2-ethylhexyl)phthalate	117-81-7	0.068	Type 4	--	--	20	3,260	Type 4	3,260	Type 4
2-Chlorophenol	95-57-8	0.51	Type 4	0.029	No	20	64.7	Type 4	64.7	Type 4
Chrysene	218-01-9	0.33	Type 3	--	--	20	7,839	Type 4	23,827	Type 4
Dibenzo(a,h)anthracene	53-70-3	0.0003	Type 3	--	--	20	7.84	Type 4	229.44	Type 4
2,4-Dichlorophenol	120-83-2	0.31	Type 4	--	--	20	61.5	Type 4	61.5	Type 4
Di-n-butylphthalate	84-74-2	10.22	Type 4	--	--	20	4,771	Type 4	4,771	Type 4
2,4-Dimethylphenol	105-67-9	2.04	Type 4	0.015	No	20	410	Type 4	410	Type 4
2,4-Dinitrophenol	51-28-5	0.20	Type 4	--	--	20	38.5	Type 4	38.5	Type 4
Di-n-octylphthalate	117-84-0	0.7	Type 3	--	--	20	23,296,003	Type 4	100,000	Type 4
Fluoranthene	206-44-0	4.09	Type 4	--	--	20	81,760	Type 4	90,688	Type 4
Fluorene	86-73-7	4.09	Type 4	--	--	20	14,995	Type 4	14,995	Type 4
Indeno(1,2,3-cd)pyrene	193-39-5	0.0014	Type 4	--	--	20	78.4	Type 4	1,109	Type 4
2-Methylphenol	95-48-7	2.58	Type 4	0.049	No	20	327	Type 4	327	Type 4
4-Methylphenol	106-44-5	3.45	Type 4	0.1	No	20	429	Type 4	429	Type 4
Naphthalene	91-20-3	0.03	Type 4	0.56	Yes	1	100	Type 3	100	Type 3
N-Nitrosodiphenylamine	86-30-6	0.082	Type 4	--	--	20	86.7	Type 4	86.7	Type 4
Pentachlorophenol	87-86-5	0.0062	Type 4	--	--	20	12.4	Type 4	12.4	Type 4
Phenanthrene	85-01-8	30.7	Type 4	--	--	20	173,352	Type 4	100,000	Type 4
Phenol	108-95-2	4.0	Type 3	0.01	No	20	400	Type 3	400	Type 3
Pyrene	129-00-0	3.07	Type 4	--	--	20	61,320	Type 4	66,655	Type 4
2,4,5-Trichlorophenol	95-95-4	10.2	Type 4	--	--	20	7,305	Type 4	7,305	Type 4
2,4,6-Trichlorophenol	88-06-2	0.06	Type 4	--	--	20	43.4	Type 4	43.4	Type 4

Table 7
Non-Residential Soil RRS
Based on Groundwater Analytical Results
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Constituent Name	CAS #	Groundwater RRS (mg/L)	Groundwater RRS Type	Max Detected Concentration* (mg/L)	Detected Above RRS?	Leachate Model DAF** (unitless)	SS Soil (0'-2') RRS (mg/kg)	SS Soil (0'-2') RRS Type	SB Soil (>2') RRS (mg/kg)	SB Soil (>2') RRS Type
Pesticides / Polychlorinated Biphenyls										
Aroclor 1016	12674-11-2	0.0072	Type 4	0.0057	No	20	137	Type 4	137	Type 4
Aroclor 1260	11096-82-5	0.0005	Type 3	0.0021	Yes	1	3.50	Type 4	69.9	Type 4
Aldrin	309-00-2	0.0017	Type 3	--	--	20	3.37	Type 4	55.78	Type 4
alpha-Endosulfan	95-99-98	0.61	Type 4	--	--	20	3,890	Type 4	3,890	Type 4
alpha-BHC	319-84-6	0.0017	Type 3	--	--	20	1.92	Type 4	1.92	Type 4
beta-BHC	319-85-7	0.0017	Type 3	0.00021	No	20	1.92	Type 4	1.92	Type 4
beta-Endosulfan	33213-65-9	0.61	Type 4	--	--	20	3,890	Type 4	3,890	Type 4
Chlordane	12789-03-6	0.002	Type 3	0.0003	No	20	27.0	Type 4	27.0	Type 4
delta-BHC	319-86-8	0.00054	Type 4	--	--	20	25.0	Type 3	25.0	Type 3
DDD	72-54-8	0.0028	Type 4	0.0015	No	20	129	Type 4	129	Type 4
DDE	72-55-9	0.0019	Type 4	0.00019	No	20	91.4	Type 4	91.4	Type 4
DDT	50-29-3	0.0019	Type 4	--	--	20	131	Type 4	131	Type 4
Dieldrin	60-57-1	0.00004	Type 4	--	--	20	0.66	Type 3	0.66	Type 3
Endosulfan sulfate	1031-07-8	DL	Type 4	--	--	20	2,418	Type 4	2,418	Type 4
Endrin	72-20-8	0.031	Type 4	--	--	20	247	Type 4	247	Type 4
Endrin aldehyde	7421-93-4	DL	Type 4	--	--	20	40.2	Type 4	40	Type 4
Endrin ketone	53494-70-5	DL	Type 4	--	--	20	119	Type 4	119	Type 4
Heptachlor epoxide	1024-57-3	0.0002	Type 3	--	--	20	1.65	Type 3	1.65	Type 3
Lindane	58-89-9	0.00061	Type 4	--	--	20	0.68	Type 4	0.68	Type 4
Methoxychlor	72-43-5	0.51	Type 4	--	--	20	5,498	Type 4	5,498	Type 4

Notes:
mg/L = Milligrams per liter
mg/kg = Milligrams per kilogram
SS = Surface soils, located from 0-2' below ground surface
SB = Sub-surface soils, located >2' below ground surface
* Groundwater samples collected from site wells in 2011 and 2012 were evaluated.
**DAF = Dilution attenuation factor used in the calculation of groundwater levels resulting from soil leachate. A DAF value of 1 is used if the maximum concentration detected in groundwater exceeds the applicable standard; otherwise the default value of 20 is used. See text for discussion.
-- = Not applicable

Table 8
Summary of Type 3 and Type 4 RRS for Groundwater
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Constituent Name	CAS #	Type 3 RRS (mg/L)	Type 4 RRS (mg/L)	RRS to Use
Volatile Organic Compounds				
Acetone	67-64-1	4.0	68.8	Type 4
Benzene	71-43-2	0.005	0.02	Type 4
Bromoform	75-25-2	0.08	0.14	Type 4
2-Butanone	78-93-3	2.0	25.6	Type 4
Carbon Disulfide	75-15-0	4.0	3.83	Type 3
Chlorobenzene	108-90-7	0.10	0.355	Type 4
Chloroethane	75-00-3	DL	87.6	Type 4
Cyclohexane	110-82-7	DL	52.4	Type 4
1,2-Dibromo-3-Chloropropane	96-12-8	0.0002	0.00004	Type 3
1,2-Dichlorobenzene	95-50-1	0.60	1.47	Type 4
1,3-Dichlorobenzene	541-73-1	0.60	1.47	Type 4
1,4-Dichlorobenzene	106-46-7	0.075	0.021	Type 3
Dichlorodifluoromethane	75-71-8	1.0	1.61	Type 4
1,1-Dichloroethane	75-34-3	4.0	1.17	Type 3
1,2-Dichloroethane	107-06-2	0.005	0.073	Type 4
1,1-Dichloroethene	75-35-4	0.007	1.30	Type 4
cis-1,2-dichloroethene	156-59-2	0.07	0.20	Type 4
trans-1,2-dichloroethene	156-60-5	0.10	0.42	Type 4
1,2-Dichloropropane	78-87-5	0.005	0.019	Type 4
Ethylbenzene	100-41-4	0.7	0.071	Type 3
Isopropylbenzene (cumene)	98-82-8	DL	2.54	Type 4
4-Methyl-2-pentanone	108-10-1	2.0	6.24	Type 4
Methylene chloride	75-09-2	0.005	0.39	Type 4
Styrene	100-42-5	0.10	6.12	Type 4
1,1,1,2-Tetrachloroethane	630-20-6	0.07	0.25	Type 4
1,1,2,2-Tetrachloroethane	79-34-5	DL/0.0002	0.0033	Type 4
Tetrachloroethylene	127-18-4	0.005	0.22	Type 4
Toluene	108-88-3	1.0	6.89	Type 4
1,2,4-Trichlorobenzene	120-82-1	0.07	0.017	Type 3
1,1,1-Trichloroethane	71-55-6	0.20	36.1	Type 4
1,1,2-Trichloroethane	79-00-5	0.005	0.12	Type 4
Trichloroethylene	79-01-6	0.005	0.013	Type 4
1,2,3-Trichloropropane	96-18-4	0.04	0.000095	Type 3
Vinyl Chloride	75-01-4	0.002	0.0037	Type 4
Xylenes	1330-20-7	10.0	0.84	Type 3
Semivolatile Organic Compounds				
Acenaphthene	83-32-9	2.0	6.13	Type 4
Acenaphthylene	208-96-8	DL	30.66	Type 4
Acetophenone	98-86-2	4.0	10.2	Type 4
Anthracene	120-12-7	DL	30.7	Type 4
Benzo(a)anthracene	56-55-3	0.0001	0.0014	Type 4
Benzo(a)pyrene	50-32-8	0.0002	0.00014	Type 3
Benzo(b)fluoranthene	205-99-2	0.0002	0.0014	Type 4
Benzo(g,h,i)perylene	191-24-2	DL	30.7	Type 4
Benzo(k)fluoranthene	207-08-9	DL	0.0021	Type 4
bis(2-chloroisopropyl)ether	108-60-1	DL	0.041	Type 4
bis(2-ethylhexyl)phthalate	117-81-7	0.006	0.068	Type 4
2-Chlorophenol	95-57-8	0.04	0.51	Type 4
Chrysene	218-01-9	0.33	0.021	Type 3
Dibenzo(a,h)anthracene	53-70-3	0.0003	0.00013	Type 3
2,4-Dichlorophenol	120-83-2	0.02	0.31	Type 4

Table 8
Summary of Type 3 and Type 4 RRS for Groundwater
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Constituent Name	CAS #	Type 3 RRS (mg/L)	Type 4 RRS (mg/L)	RRS to Use
Di-n-butylphthalate	84-74-2	4.0	10.2	Type 4
2,4-Dimethylphenol	105-67-9	0.7	2.04	Type 4
2,4-Dinitrophenol	51-28-5	0.0017	0.20	Type 4
Di-n-octylphthalate	117-84-0	0.7	NA	Type 4
Fluoranthene	206-44-0	1.0	4.09	Type 4
Fluorene	86-73-7	1.0	4.09	Type 4
Indeno(1,2,3-cd)pyrene	193-39-5	0.0004	0.0014	Type 4
2-Methylphenol	95-48-7	DL	2.58	Type 4
4-Methylphenol	106-44-5	DL	3.45	Type 4
Naphthalene	91-20-3	0.02	0.026	Type 4
N-Nitrosodiphenylamine	86-30-6	DL	0.082	Type 4
Pentachlorophenol	87-86-5	0.001	0.0062	Type 4
Phenanthrene	85-01-8	DL	30.7	Type 4
Phenol	108-95-2	4.0	1.65	Type 3
Pyrene	129-00-0	1.0	3.07	Type 4
2,4,5-Trichlorophenol	95-95-4	4.0	10.2	Type 4
2,4,6-Trichlorophenol	88-06-2	0.03	0.061	Type 4
Pesticides / Polychlorinated Biphenyls				
Aroclor 1016	12674-11-2	0.0005	0.0072	Type 4
Aroclor 1260	11096-82-5	0.0005	0.0003	Type 3
Aldrin	309-00-2	0.0017	0.00004	Type 3
alpha-Endosulfan	95-99-98	0.002	0.61	Type 4
alpha-BHC	319-84-6	0.0017	0.0001	Type 3
beta-BHC	319-85-7	0.0017	0.0004	Type 3
beta-Endosulfan	33213-65-9	0.002	0.61	Type 4
Chlordane	12789-03-6	0.002	0.0019	Type 3
delta-BHC	319-86-8	DL	0.0005	Type 4
DDD	72-54-8	0.0001	0.0028	Type 4
DDE	72-55-9	0.0001	0.0019	Type 4
DDT	50-29-3	0.0001	0.0019	Type 4
Dieldrin	60-57-1	0.00002	0.00004	Type 4
Endosulfan sulfate	1031-07-8	0.0001	0.61	Type 4
Endrin	72-20-8	0.002	0.031	Type 4
Endrin aldehyde	7421-93-4	0.0001	0.031	Type 4
Endrin ketone	53494-70-5	0.0001	0.031	Type 4
Heptachlor epoxide	1024-57-3	0.0002	0.00007	Type 3
Lindane	58-89-9	0.0002	0.0006	Type 4
Methoxychlor	72-43-5	0.04	0.51	Type 4

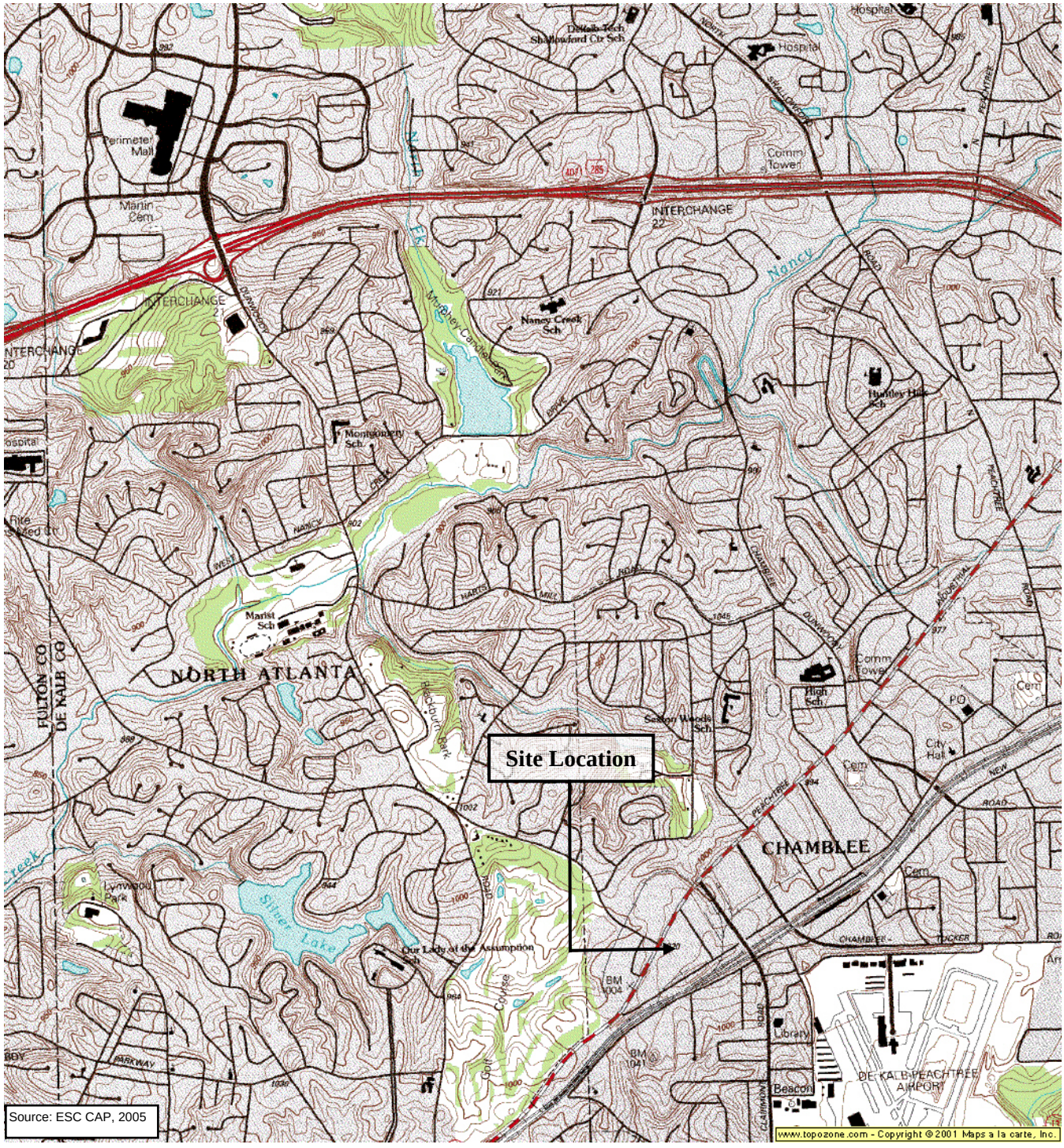
Notes:
mg/L = Milligrams per liter
NA = Not available
DL = Analytical detection limit
Blue shaded cells represent the higher of Type 3 or Type 4 RRS for groundwater.

Table 9
Known Regulated Compounds Identified in GE LNAPL
Voluntary Remediation Plan
Former Oxford Chemical Property, Chamblee, Georgia

Volatile Organic Compounds
1,1,1-Trichloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2,4-Trichlorobenzene
1,2-Dichloroethane
Benzene
Chloroethane
cis-1,2-dichloroethene
Ethylbenzene
Methylene chloride
Tetrachloroethene (PCE)
Toluene
Trichloroethene (TCE)
Xylene (total)
Semi-Volatile Organic Compounds
Acenaphthene
bis(2-ethylhexyl)phthalate
Phenanthrene
PCBs
Aroclor 1242
Aroclor 1260

Figures

.



Reference
7.5 Minute Series Topographic Quadrangle
Chamblee, Georgia
Photorevised 1993 Scale 1:25,000 Metric

N

Quadrangle Location

Scale in Meters
0 500 1000

0 1000 2000
Scale in Feet

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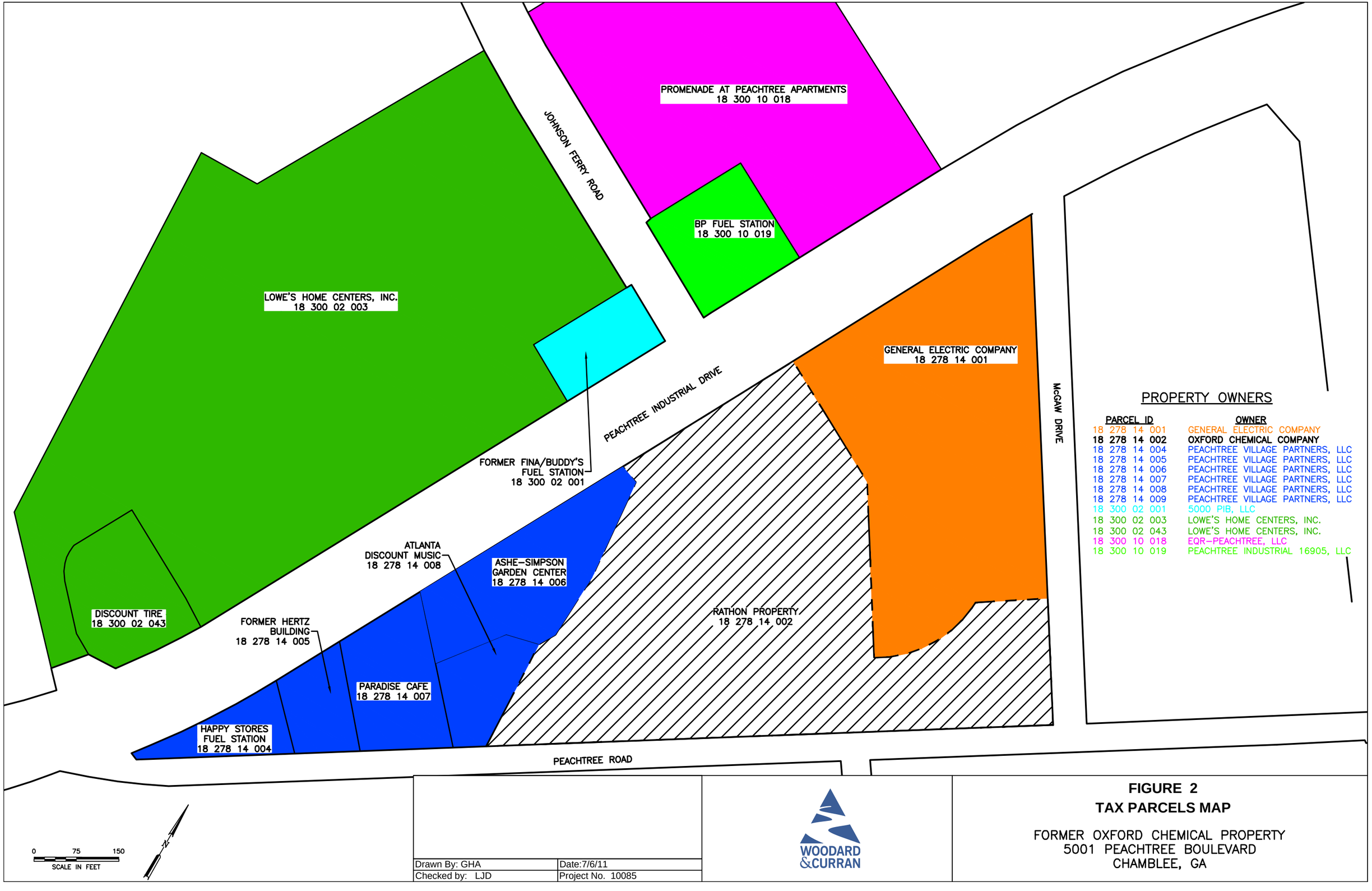
Figure 1
Site Location
Former Oxford Chemical Property
5001 Peachtree Industrial Boulevard
Chamblee, Georgia



PROPERTY OWNERS

PARCEL ID	OWNER
18 278 14 001	GENERAL ELECTRIC COMPANY
18 278 14 002	OXFORD CHEMICAL COMPANY
18 278 14 004	PEACHTREE VILLAGE PARTNERS, LLC
18 278 14 005	PEACHTREE VILLAGE PARTNERS, LLC
18 278 14 006	PEACHTREE VILLAGE PARTNERS, LLC
18 278 14 007	PEACHTREE VILLAGE PARTNERS, LLC
18 278 14 008	PEACHTREE VILLAGE PARTNERS, LLC
18 278 14 009	PEACHTREE VILLAGE PARTNERS, LLC
18 300 02 001	5000 PIB, LLC
18 300 02 003	LOWE'S HOME CENTERS, INC.
18 300 02 043	LOWE'S HOME CENTERS, INC.
18 300 10 018	EQR-PEACHTREE, LLC
18 300 10 019	PEACHTREE INDUSTRIAL 16905, LLC

Drawn By: GHA	Date:7/6/11
Checked by: LJD	Project No. 10085

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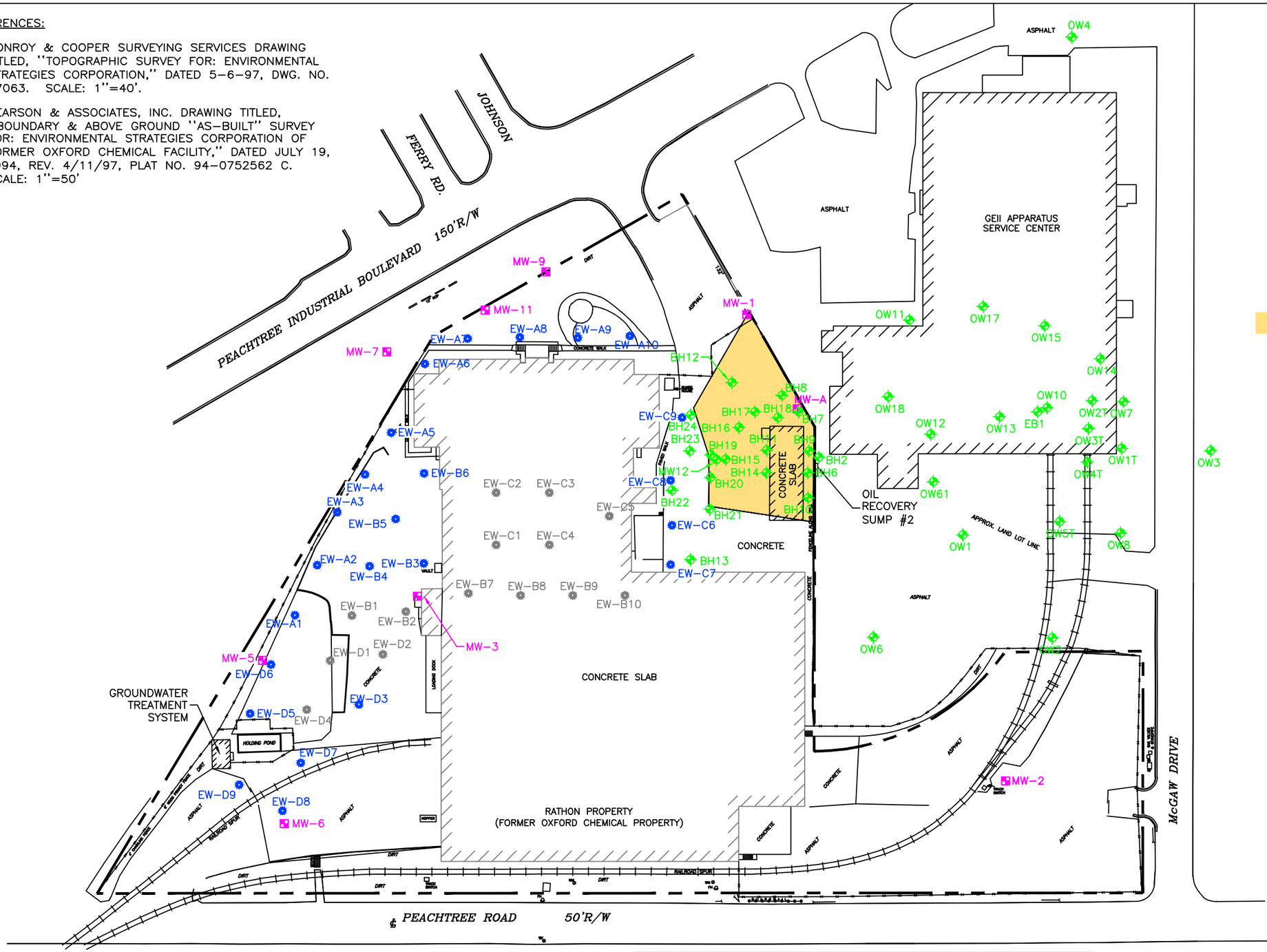
FIGURE 2
TAX PARCELS MAP

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, ''TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION,'' DATED 5-6-97, DWG. NO. 97063. SCALE: 1''=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, ''BOUNDARY & ABOVE GROUND ''AS-BUILT'' SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY,'' DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1''=50'



LEGEND

- MW-1 — MONITORING WELL INSTALLED BY RATHON
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-B6 — FORMER DUAL PHASE EXTRACTION WELL
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED HSRA SUBLISTING

NOTE: RECOVERY WELLS INSTALLED BY GENERAL ELECTRIC IN THE PROPOSED SUBLISTED AREA NOT SHOWN ON THIS DRAWING

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

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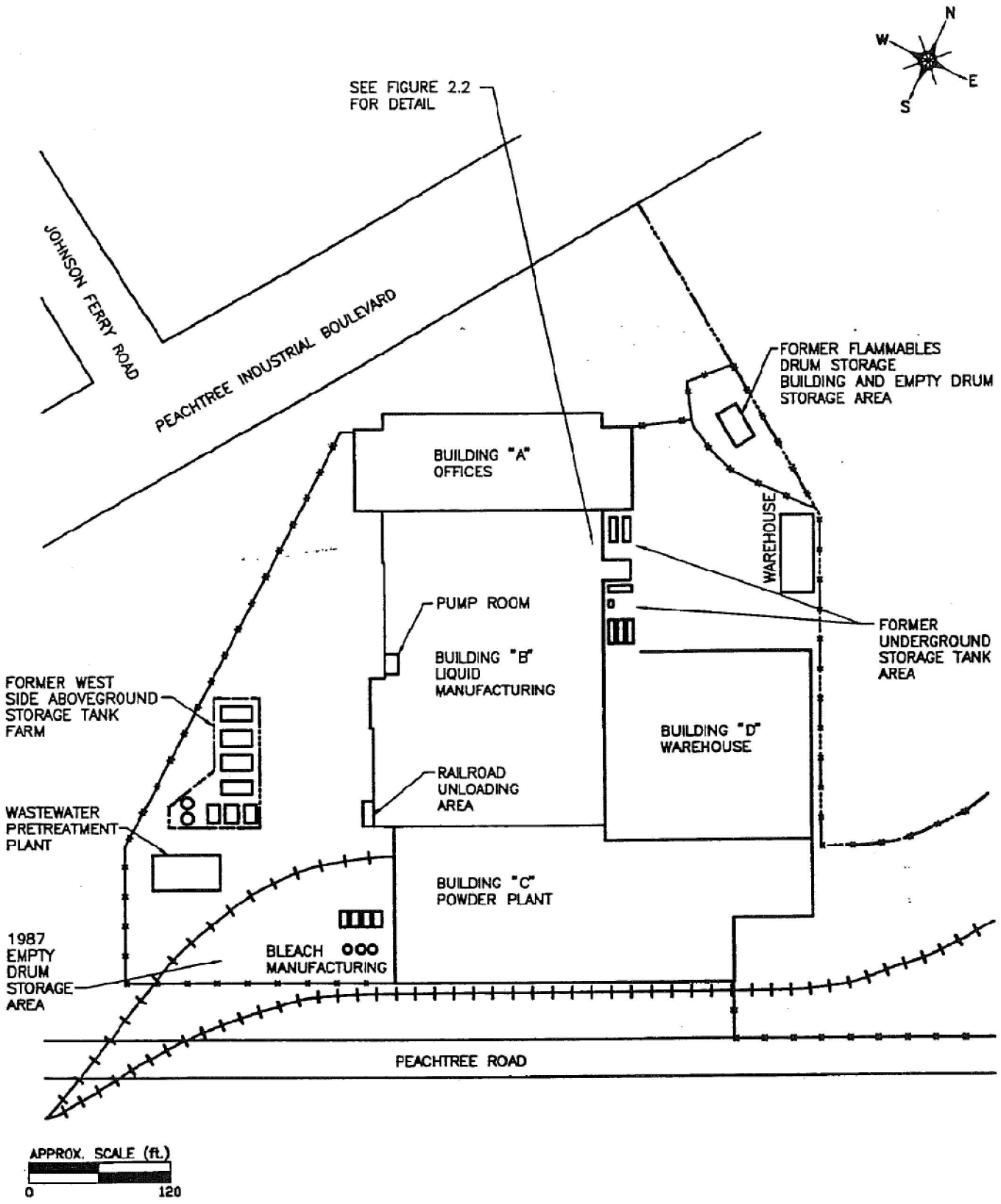
FIGURE 3
CURRENT SITE PLAN

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA



SOURCE: ERM, 8/93, FIGURE 2.1.

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HISTORICAL FACILITY LAYOUT

DESIGNED BY: BRM	CHECKED BY: XXX
DRAWN BY: XXX	HISTORICAL FACILITY LAYOUT.DWG

RATHON CORPORATION

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BLVD.
CHAMBLEE, GEORGIA

JOB NO: 226278	
DATE: 3/26/2013	
SCALE: AS SHOWN	

FIGURE 4

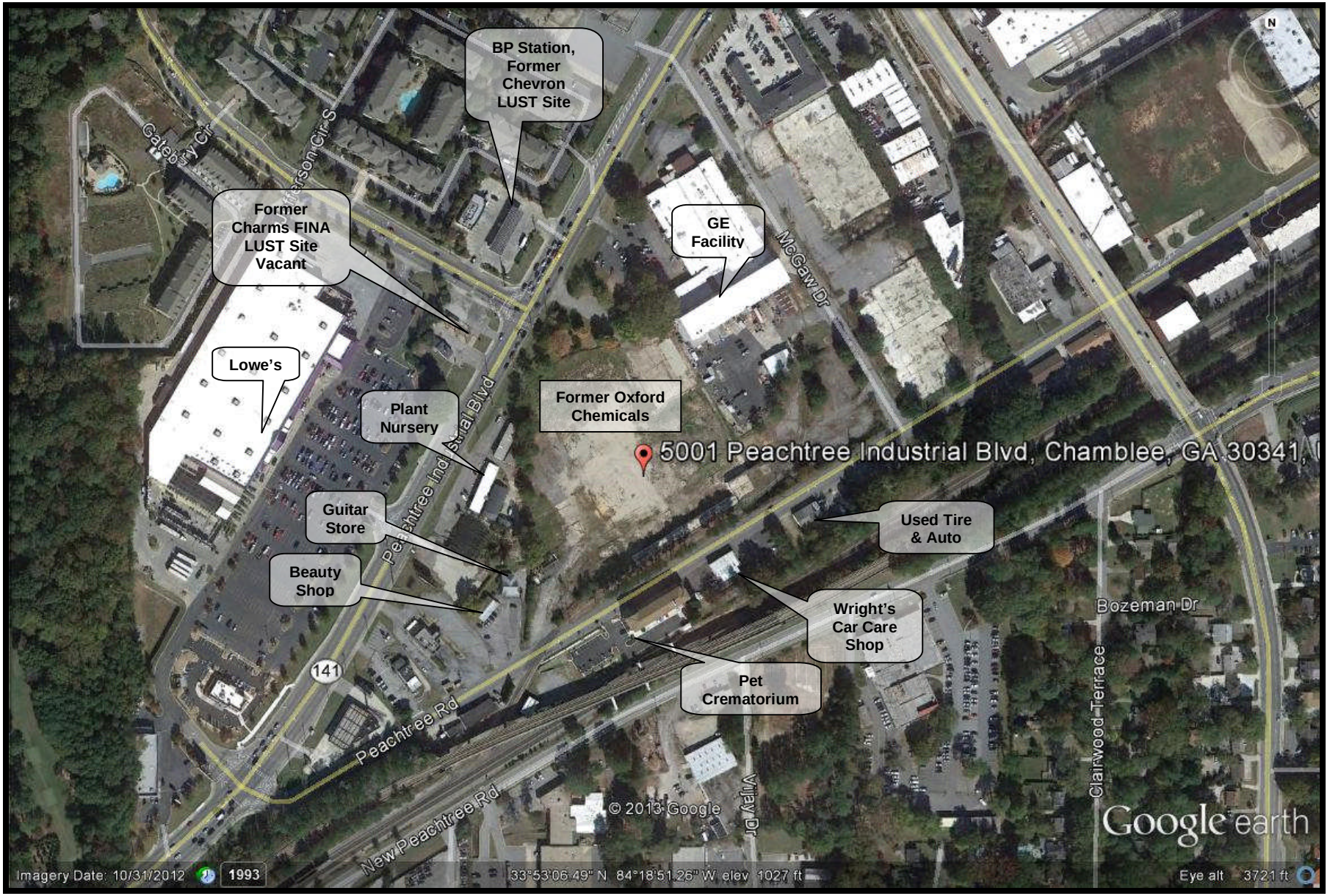
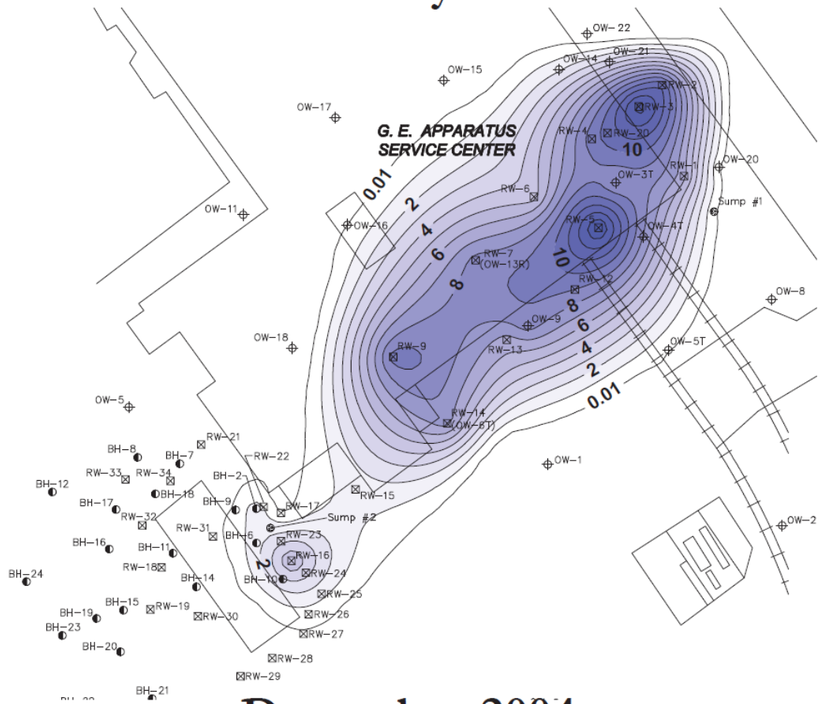


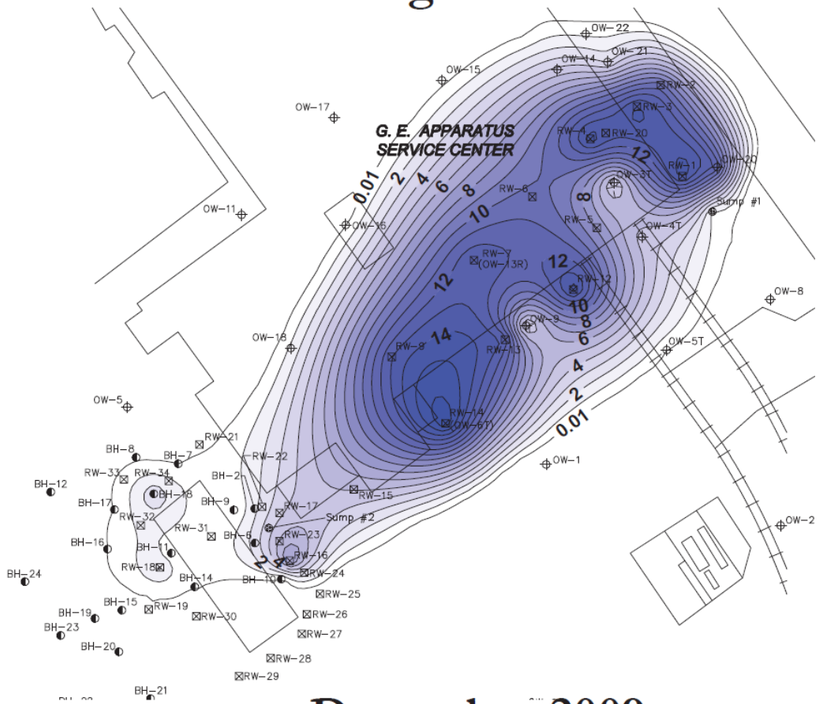
Image Courtesy of Google earth

Figure 5 – Surrounding Property Use
Former Oxford Chemical Property (Rathon property), Chamblee, Georgia

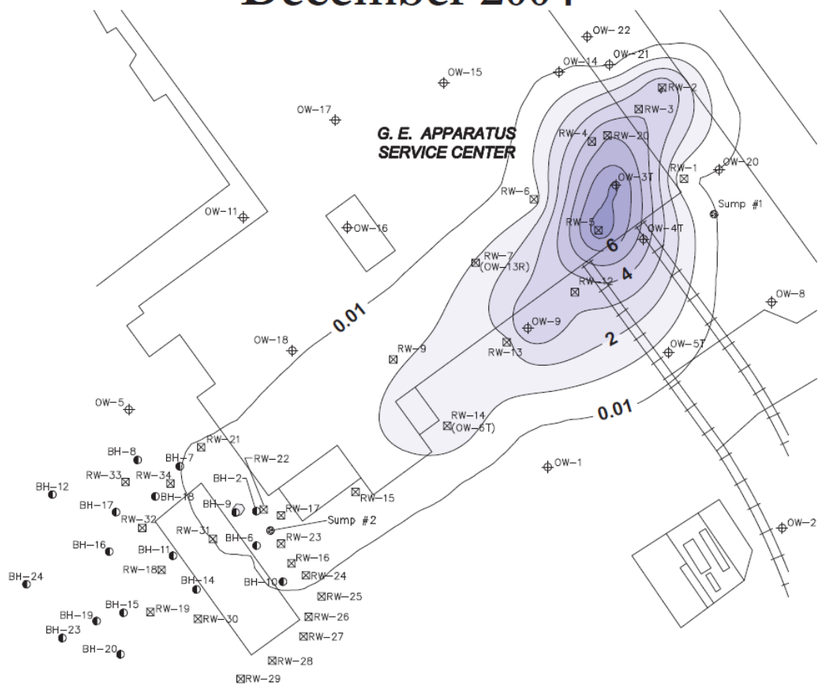
February 1996



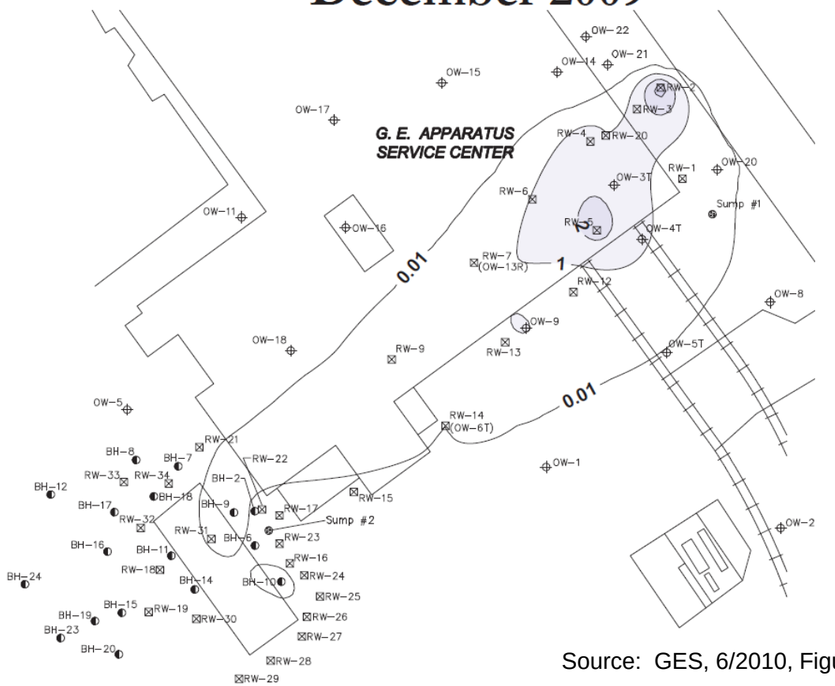
August 2000



December 2004



December 2009



Product Thickness (ft)

18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0.01

NORTH

SCALE IN FEET
0
100

Source: GES, 6/2010, Figure 3.1.

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MEASURED LNAPL THICKNESS 1996–2009

DESIGNED BY: BRM
DRAWN BY: XXX
CHECKED BY: XXX
6A – LNAPL THICKNESS.DWG

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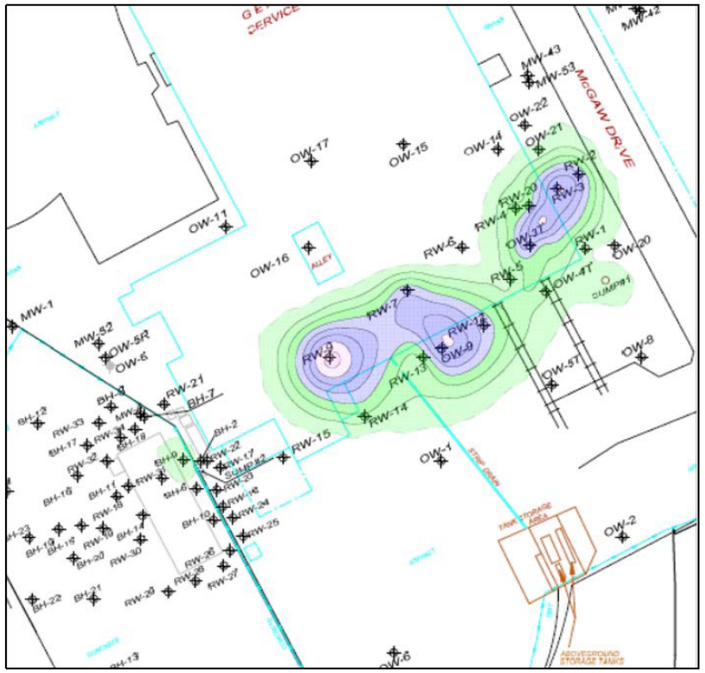
FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BLVD.
CHAMBLEE, GEORGIA

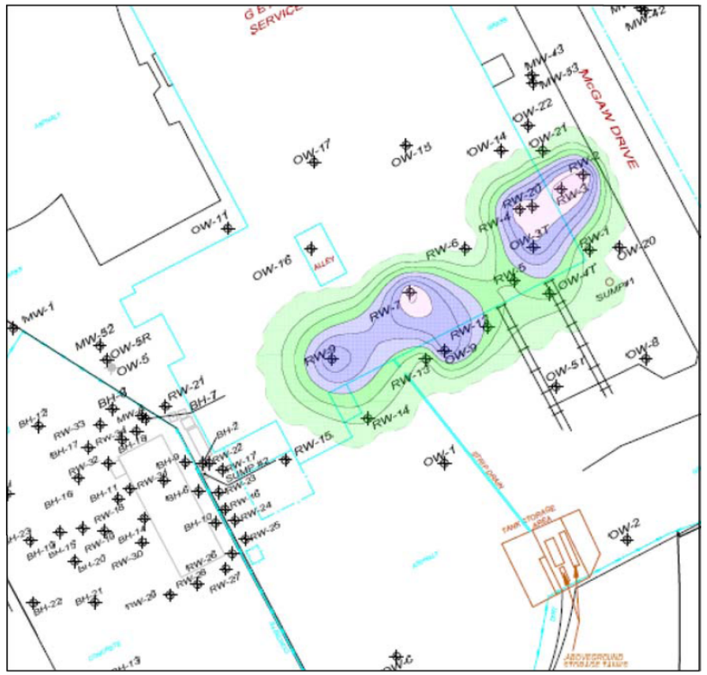
JOB NO: 226278
DATE: 3/26/2013
SCALE: AS SHOWN

FIGURE 6A

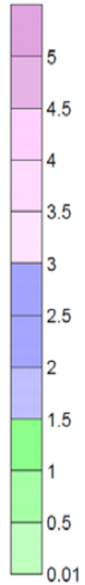
December 2011



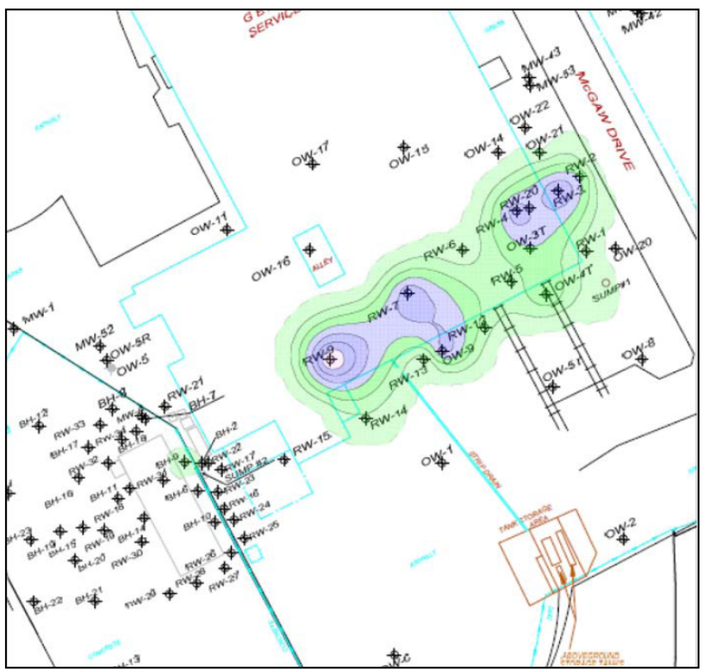
March 2012



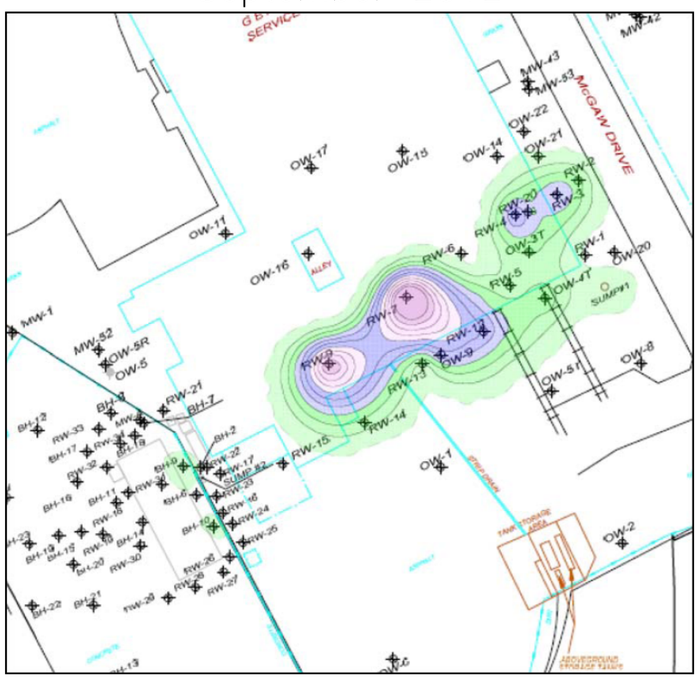
LNAPL Thickness
(in feet)



June 2012



September 2012



SCALE IN FEET

0 100

Source: URS, 12/2012, Figure 4-2.

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COMMITMENT & INTEGRITY DRIVE RESULTS

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MEASURED LNAPL THICKNESS
2011–2012

DESIGNED BY: BRM
DRAWN BY: XXX
CHECKED BY: XXX
6B – LNAPL THICKNESS.DWG

RATHON CORPORATION

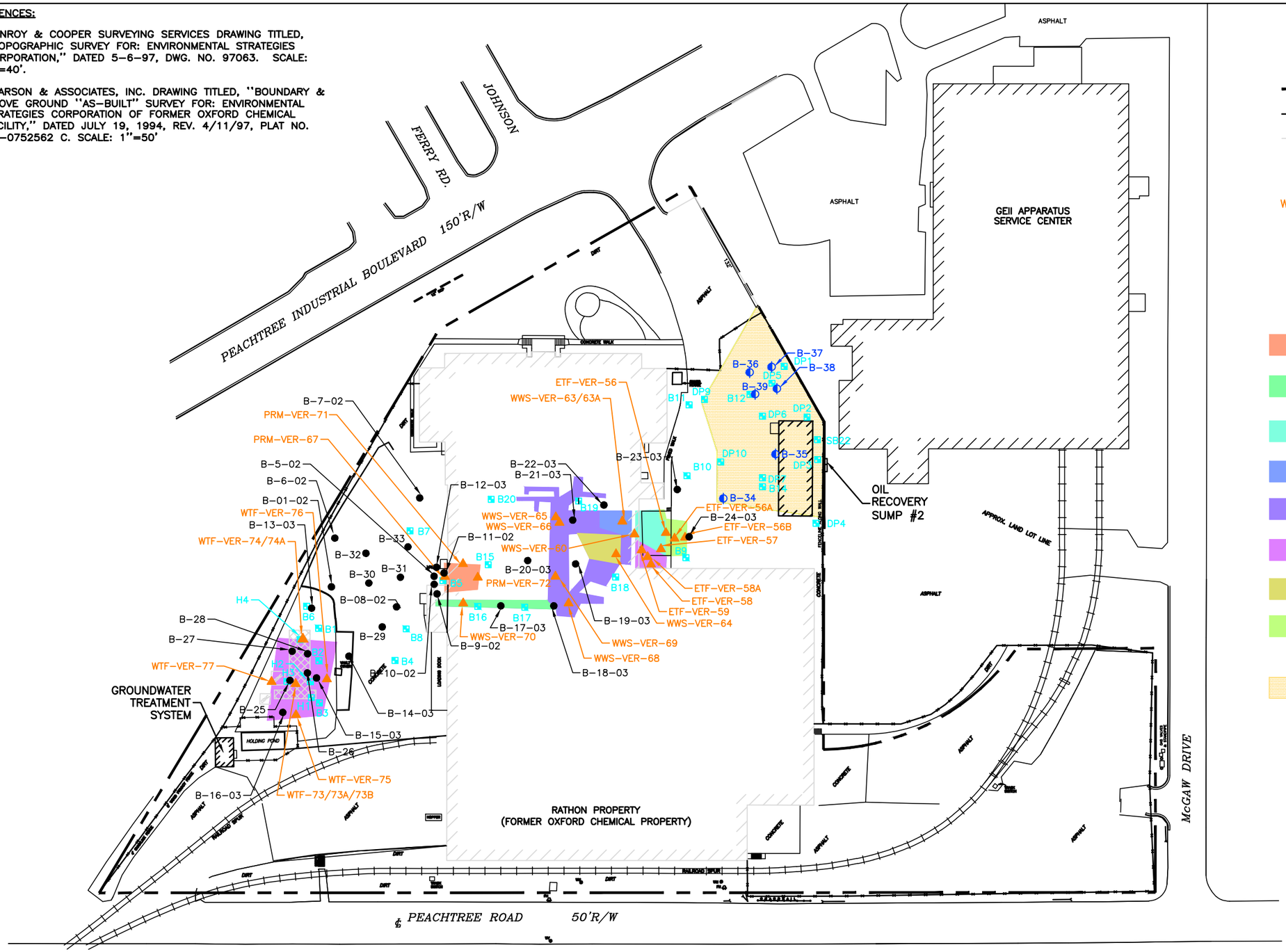
FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BLVD.
CHAMBLEE, GEORGIA

JOB NO: 226278
DATE: 3/26/2013
SCALE: AS SHOWN

FIGURE 6B

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- DP4 — HISTORIC SAMPLE LOCATION
- WWS-VER-68 — HISTORICAL EXCAVATION VERIFICATION SAMPLE
- B-29 — ESC 2002-2003 SAMPLING LOCATION
- B-34 — WSP SAMPLING LOCATION
- 0'-14' DEEP EXCAVATION AREA
- 3' DEEP EXCAVATION AREA
- 5' DEEP EXCAVATION AREA
- 7' DEEP EXCAVATION AREA
- 8' DEEP EXCAVATION AREA
- 9' DEEP EXCAVATION AREA
- 10' DEEP EXCAVATION AREA
- 12' DEEP EXCAVATION AREA
- AREA INCLUDED IN PROPOSED SUBLISTING

Drawn By: GHA/BRM	Date: 2-27-13
Checked by: LJD	Project No. 226278

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FIGURE 7
2008 SOIL REMEDIATION AREAS

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

PEACHTREE INDUSTRIAL BOULEVARD 150'R/W

PEACHTREE ROAD 50'R/W

REFERENCES:

1. CONROY, & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063, SCALED 1"=40'
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C, SCALED 1"=50'

SCALE, FEET
30 0 30 60

LEGEND

- MW-9 EXISTING MONITORING WELL
- MH MANHOLE
- D.I. DROP INLET
- C.B. CATCH BASIN
- J.B. JUNCTION BOX
- u.p. UTILITY POLE
- FH FIRE HYDRANT
- PROPERTY LINE
- FENCE LINE
- SANITARY SEWER LINE
- GAS LINE
- VERIFICATION SAMPLE LOCATION
- EXCAVATION AREA

EXCAVATED SOILS UP TO 9 FEET BELOW GROUND SURFACE. BACKFILLED WITH CLEAN FILL

EXCAVATED SOILS 0 TO 14 FEET. BACKFILLED WITH CLEAN FILL

EXCAVATED SOILS UP TO 12 FEET BELOW EXISTING GRADE. BACKFILLED WITH CLEAN FILL

EXCAVATED SOILS UP TO 8 FEET BELOW TOP OF SLAB. BACKFILLED WITH CLEAN FILL

Source: WSP, Dwg#122492133.

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COMMITMENT & INTEGRITY DRIVE RESULTS

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2008 SOIL REMEDIATION VERIFICATION SAMPLE LOCATIONS

DESIGNED BY:	BRM
DRAWN BY:	XXX
CHECKED BY:	XXX
	8 – 2008 SAMPLE LOCS.DWG

RATHON CORPORATION

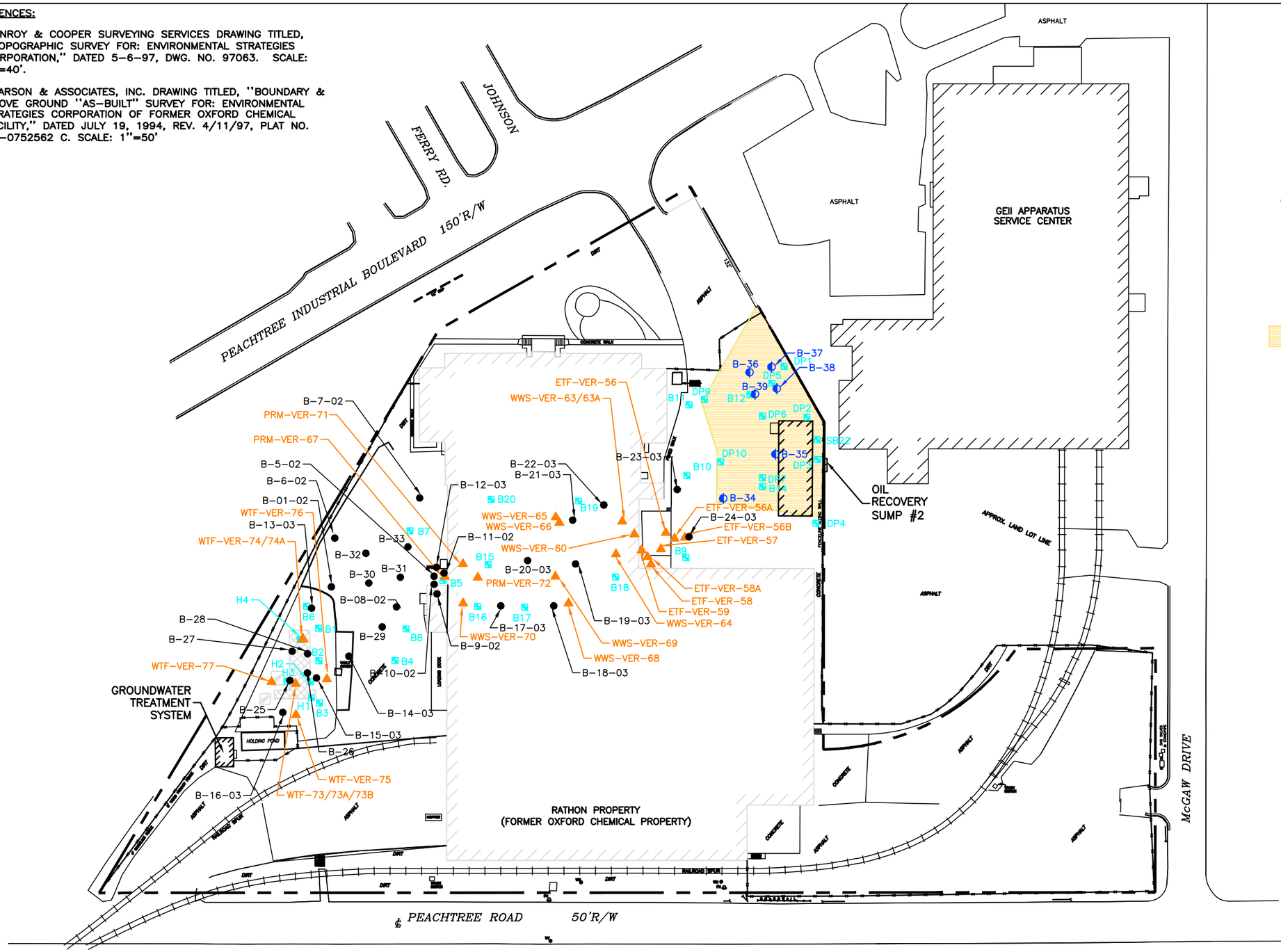
FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BLVD.
CHAMBLEE, GEORGIA

JOB NO: 226278
DATE: 3/26/2013
SCALE: AS SHOWN

FIGURE 8

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- DP4 — HISTORIC SAMPLE LOCATION
- WWS-VER-68 — HISTORICAL EXCAVATION VERIFICATION SAMPLE
- B-29 — ESC 2002-2003 SAMPLING LOCATION
- B-34 — WSP SAMPLING LOCATION
- AREA INCLUDED IN PROPOSED SUBLISTING

0 50 100
SCALE IN FEET

Drawn By: GHA/BRM	Date: 2-27-13
Checked by: LJD	Project No. 226278

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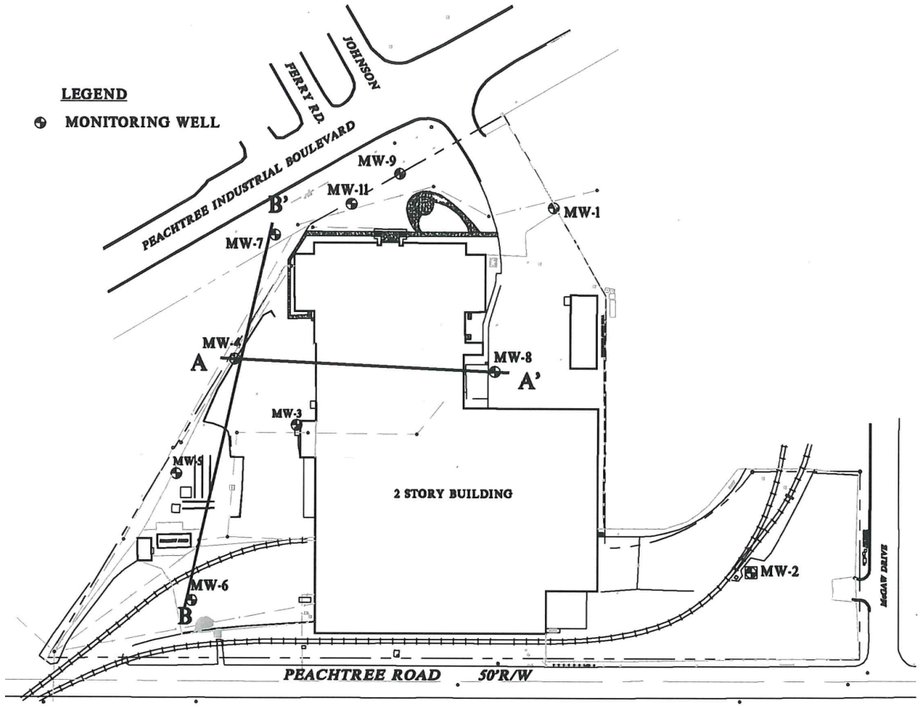
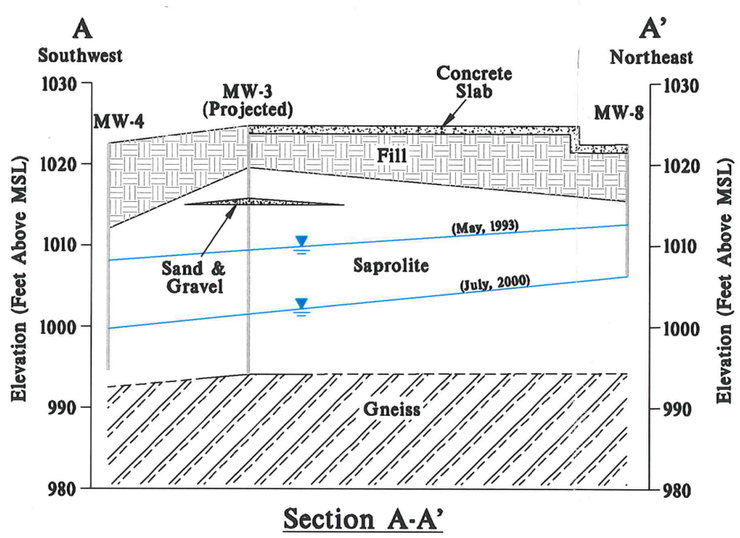
FIGURE 9
HISTORICAL SOIL SAMPLE LOCATION MAP

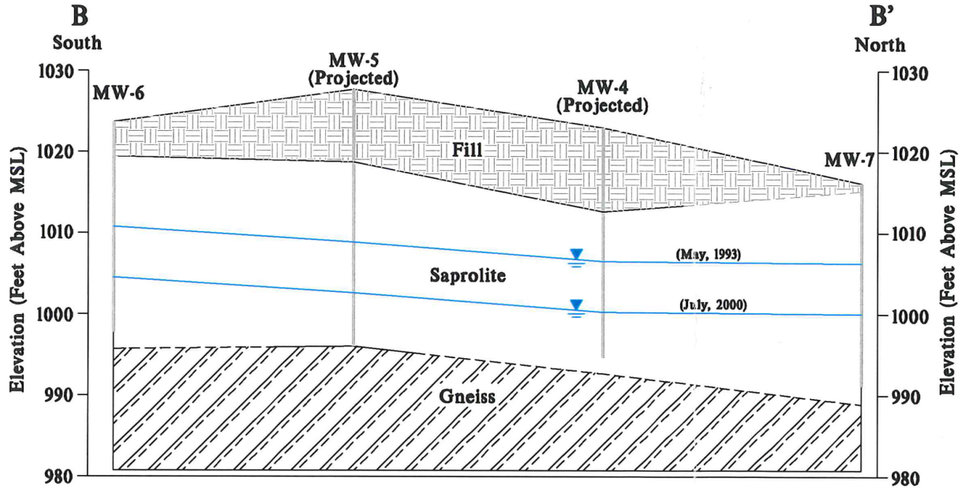
FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA



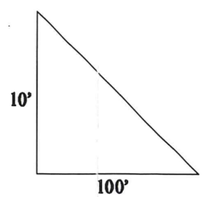
Cross-Section Location Map



Section A-A'



Section B-B'



2X Vertical Exaggeration

0 10'
Vertical Scale in Feet

0 100'
Horizontal Scale in Feet

Source: ESC, 2003, Figure 4.

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COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

GEOLOGIC CROSS-SECTIONS
ESC, 2003

DESIGNED BY: BRM
DRAWN BY: XXX
CHECKED BY: XXX
10 – CROSS-SEC.DWG

RATHON CORPORATION

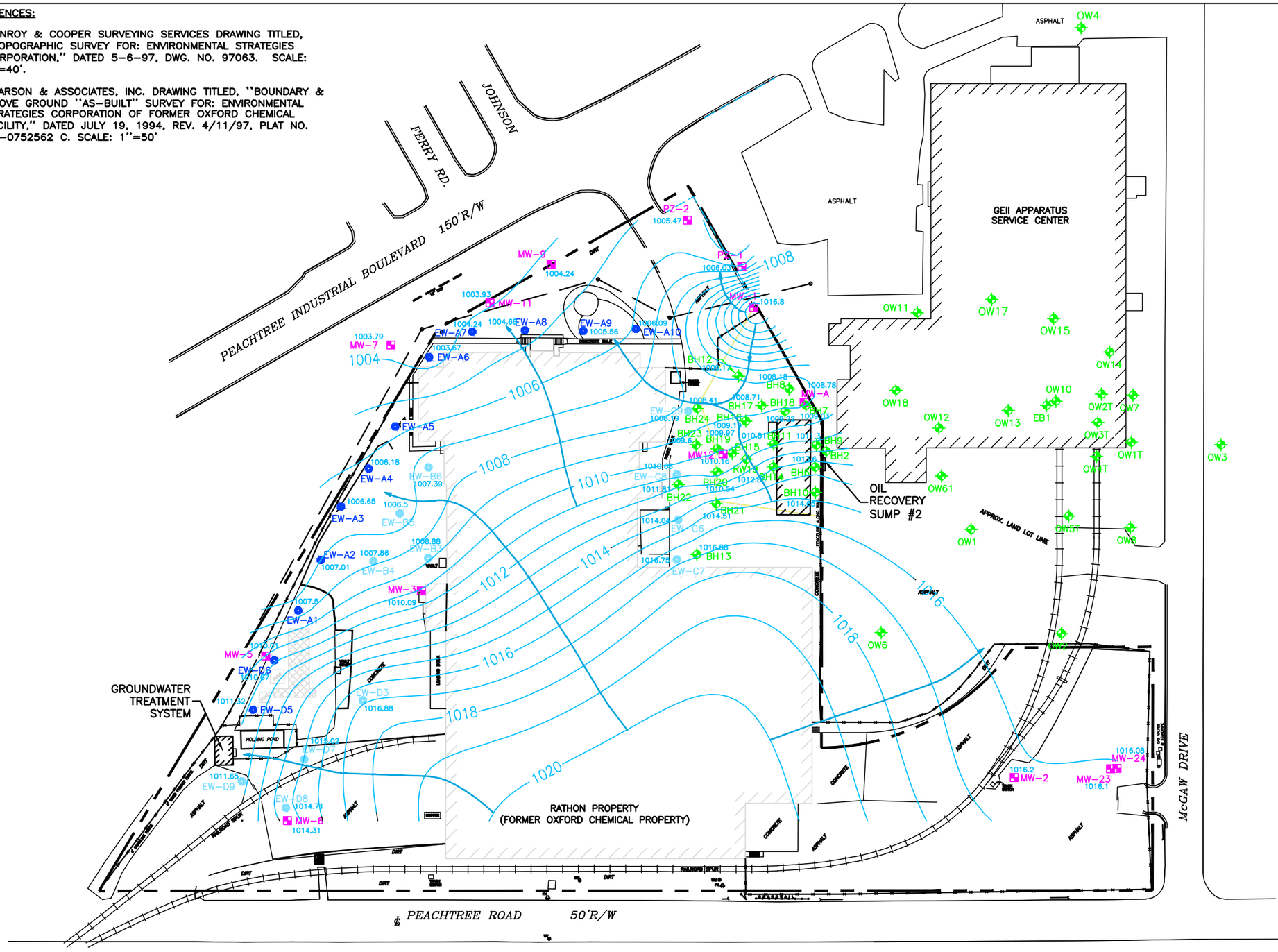
FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BLVD.
CHAMBLEE, GEORGIA

JOB NO: 226278
DATE: 3/26/2013
SCALE: AS SHOWN

FIGURE 10

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- BH22 — GE MONITORING WELL
- MW-1 — MONITORING WELL/PIEZOMETER
- EW-B6 — ACTIVE EXTRACTION WELL
- EW-B6 — INACTIVE EXTRACTION WELL
- 1018 — GROUNDWATER ELEVATION CONTOUR, MSL. ARROW DENOTES FLOW DIRECTION.

NOTE: RECOVERY WELLS INSTALLED BY GENERAL ELECTRIC IN THE PROPOSED SUBLISTED AREA NOT SHOWN ON THIS DRAWING.

0 50 100
SCALE IN FEET

Drawn By: GHA/BRM	Date: 02-26-13
Checked by: LJD	Project No. 226278

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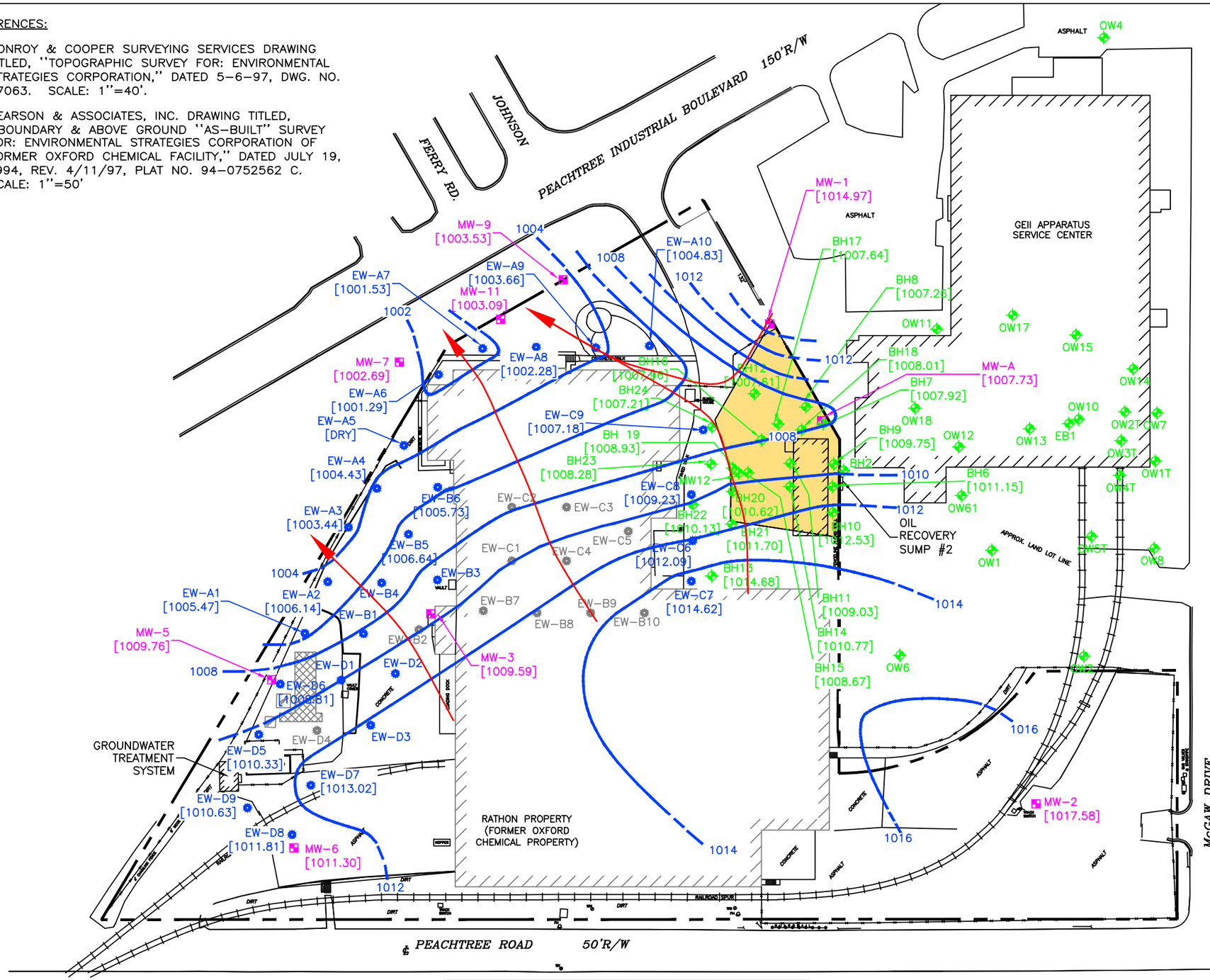
FIGURE 11
POTENTIOMETRIC SURFACE MAP
FEBRUARY 15, 2013
FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, ''TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION,'' DATED 5-6-97, DWG. NO. 97063. SCALE: 1''=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, ''BOUNDARY & ABOVE GROUND ''AS-BUILT'' SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY,'' DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1''=50'



LEGEND

- MW-5 [1009.76] — MONITORING WELL INSTALLED BY RATHON [GROUNDWATER ELEVATION]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-B6 [1005.73] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [GROUNDWATER ELEVATION]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 1012 — GROUNDWATER ELEVATION CONTOUR, MSL (DASHED WHERE INFERRED). ARROW DENOTES FLOW DIRECTION.

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-2-11
Checked by: LJD	Project No. 10085

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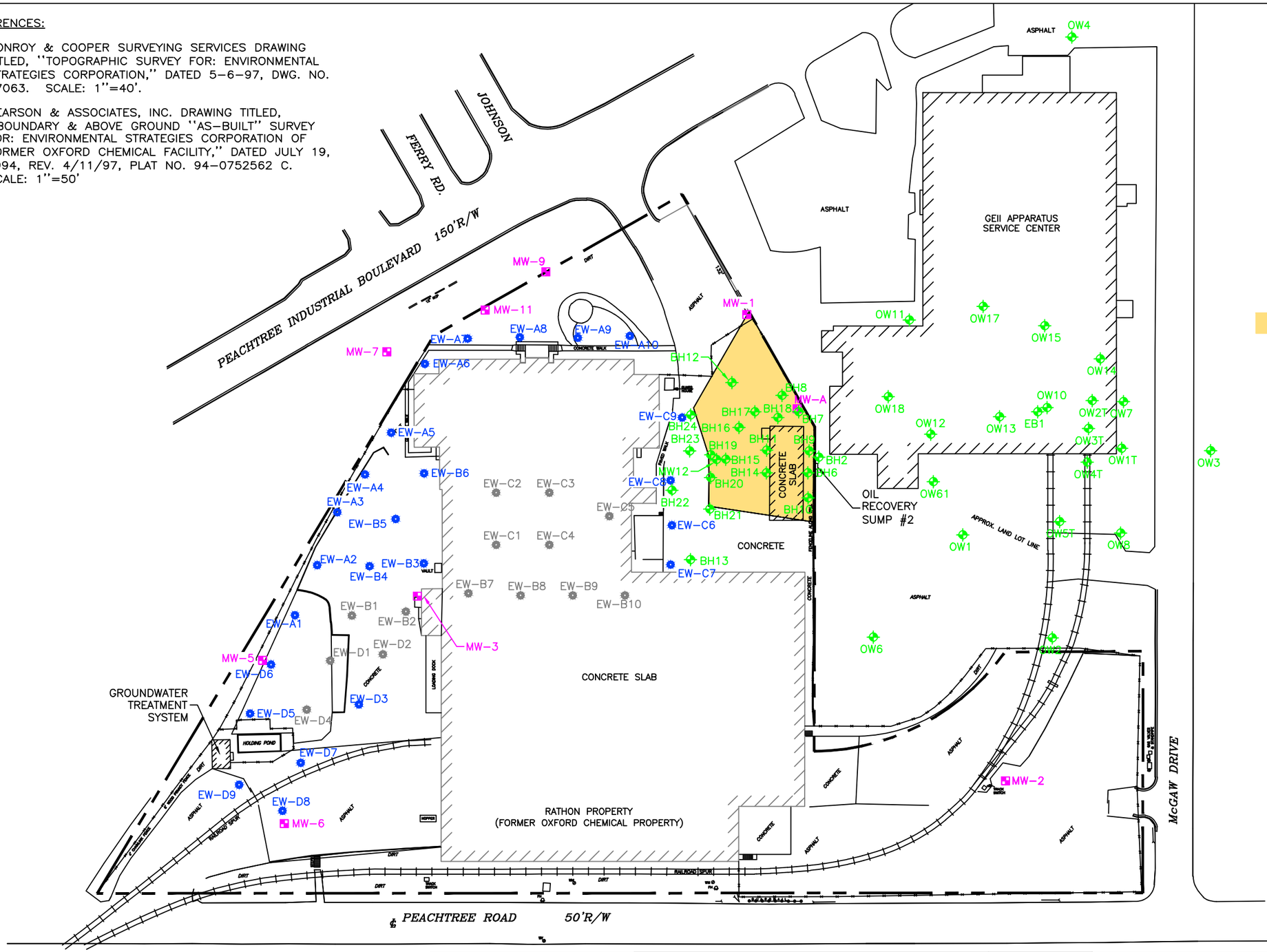
FIGURE 12
POTENTIOMETRIC SURFACE MAP
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, ''TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION,'' DATED 5-6-97, DWG. NO. 97063. SCALE: 1''=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, ''BOUNDARY & ABOVE GROUND ''AS-BUILT'' SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY,'' DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1''=50'



LEGEND

- MW-1 — MONITORING WELL INSTALLED BY RATHON
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-B6 — FORMER DUAL PHASE EXTRACTION WELL
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED HSRA SUBLISTING

NOTE: RECOVERY WELLS INSTALLED BY GENERAL ELECTRIC IN THE PROPOSED SUBLISTED AREA NOT SHOWN ON THIS DRAWING

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

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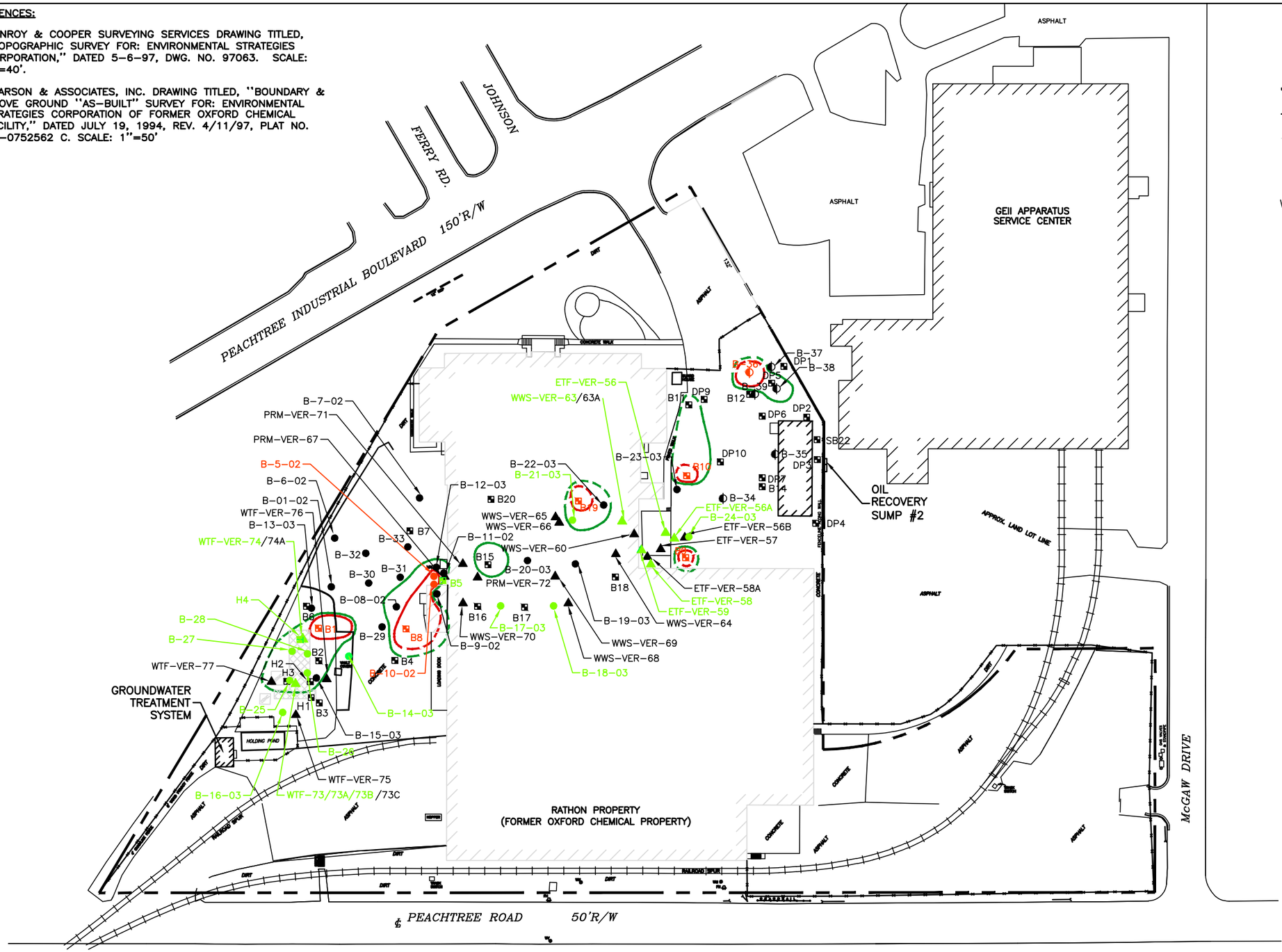
FIGURE 13
MONITORING WELL LOCATION MAP

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- DP4 — HISTORIC SAMPLE LOCATION
- WWS-VER-68 — HISTORICAL EXCAVATION VERIFICATION SAMPLE
- B-29 — ESC 2002-2003 SAMPLING LOCATION
- B-34 — WSP SAMPLING LOCATION
- B9 — SOIL SAMPLE RESULT(S) ABOVE BOTH NON-RESIDENTIAL RRS
- H4 — SAMPLE LOCATION PREVIOUSLY EXCAVATED
- DELINEATION STANDARD, GREATER THAN TYPE 1 RRS
- AREA GREATER THAN NON-RESIDENTIAL RRS

0 50 100
SCALE IN FEET

Drawn By: GHA/BRM	Date: 2-26-13
Checked by: LJD	Project No. 226278

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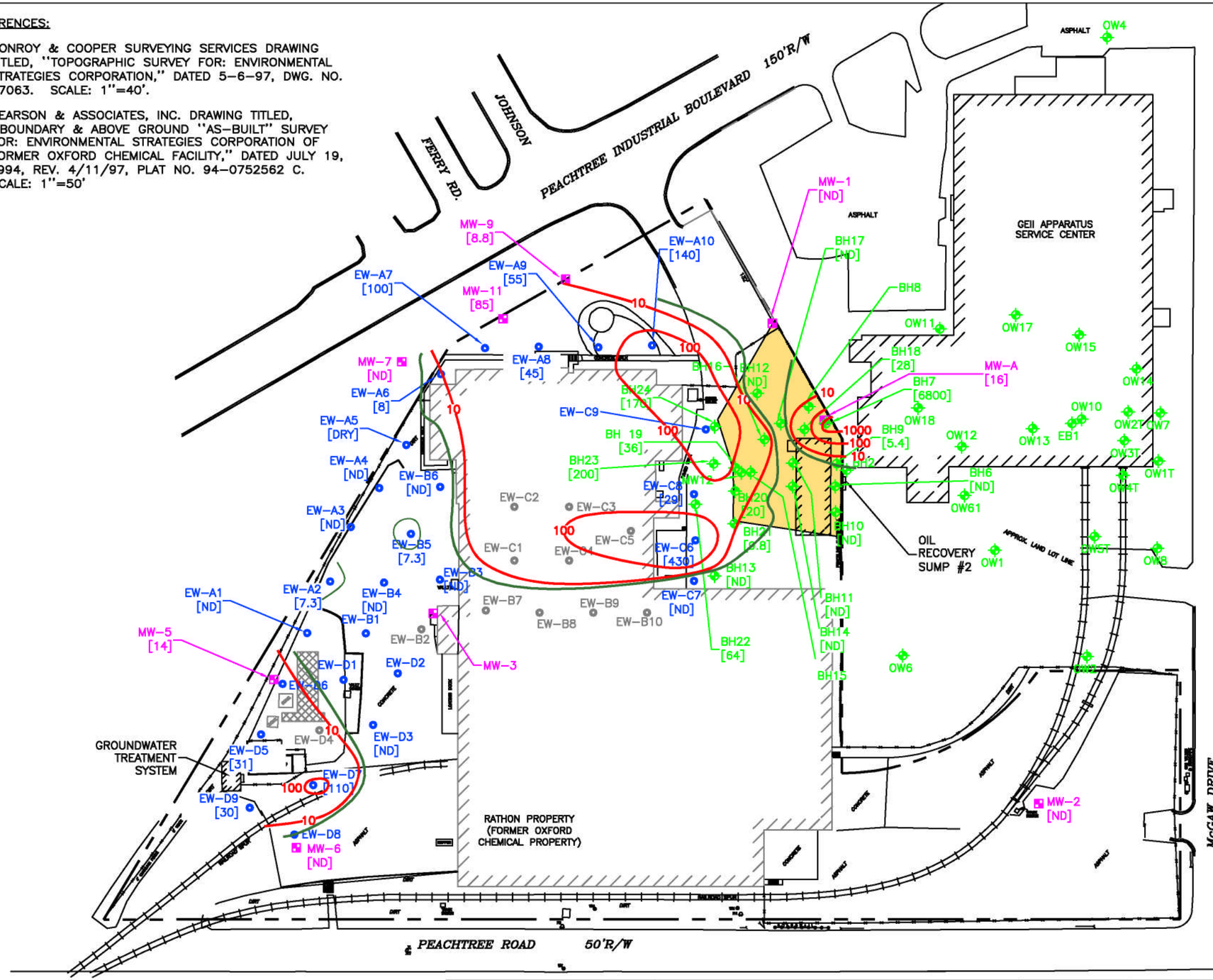
FIGURE 14
HISTORICAL SOIL SAMPLE DATA COMPARED TO RRS
FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 5 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

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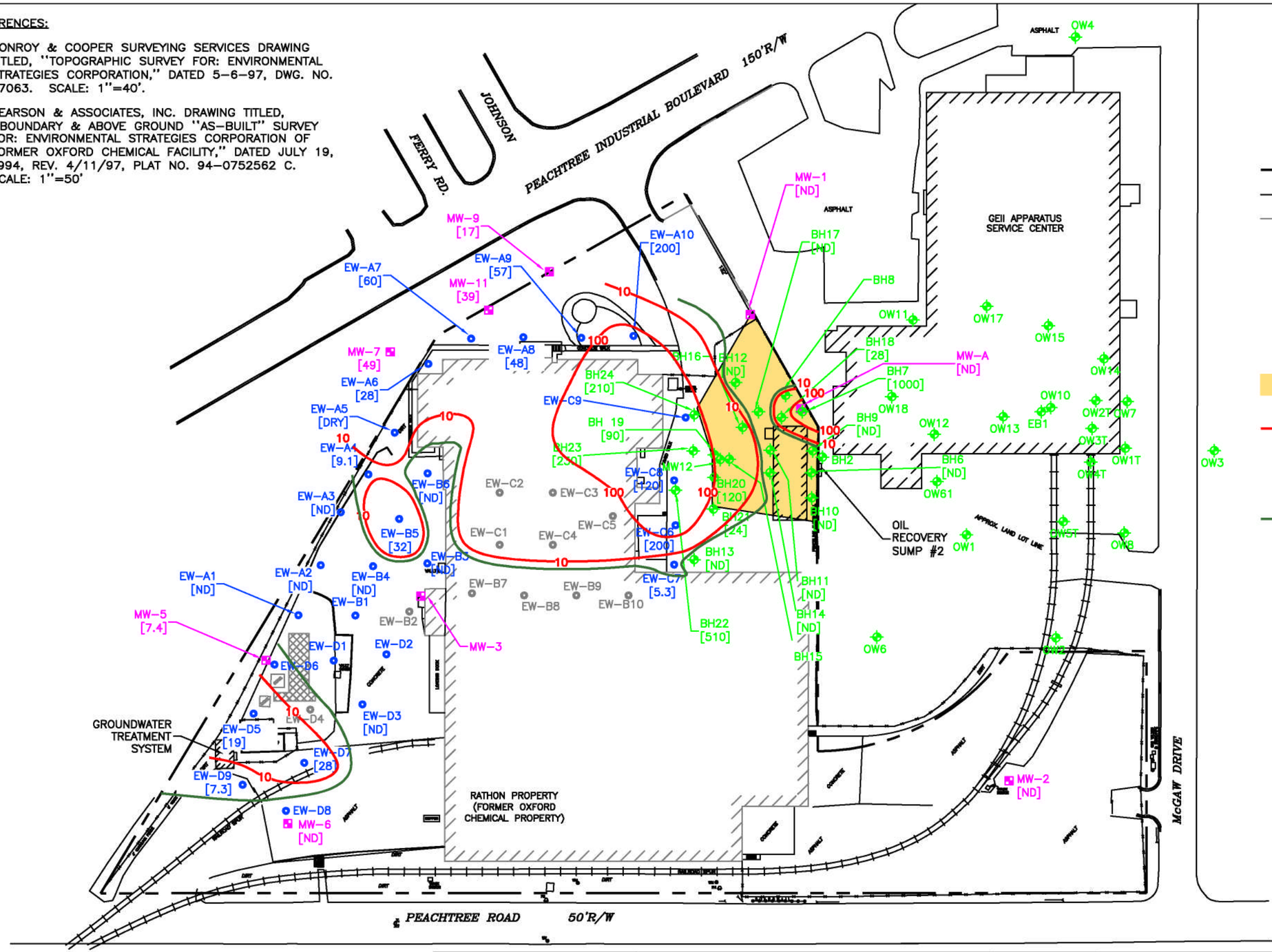
FIGURE 15
TETRACHLOROETHENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 5 µg/L, TYPE 1 RRS DELINEATION CONTOUR

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

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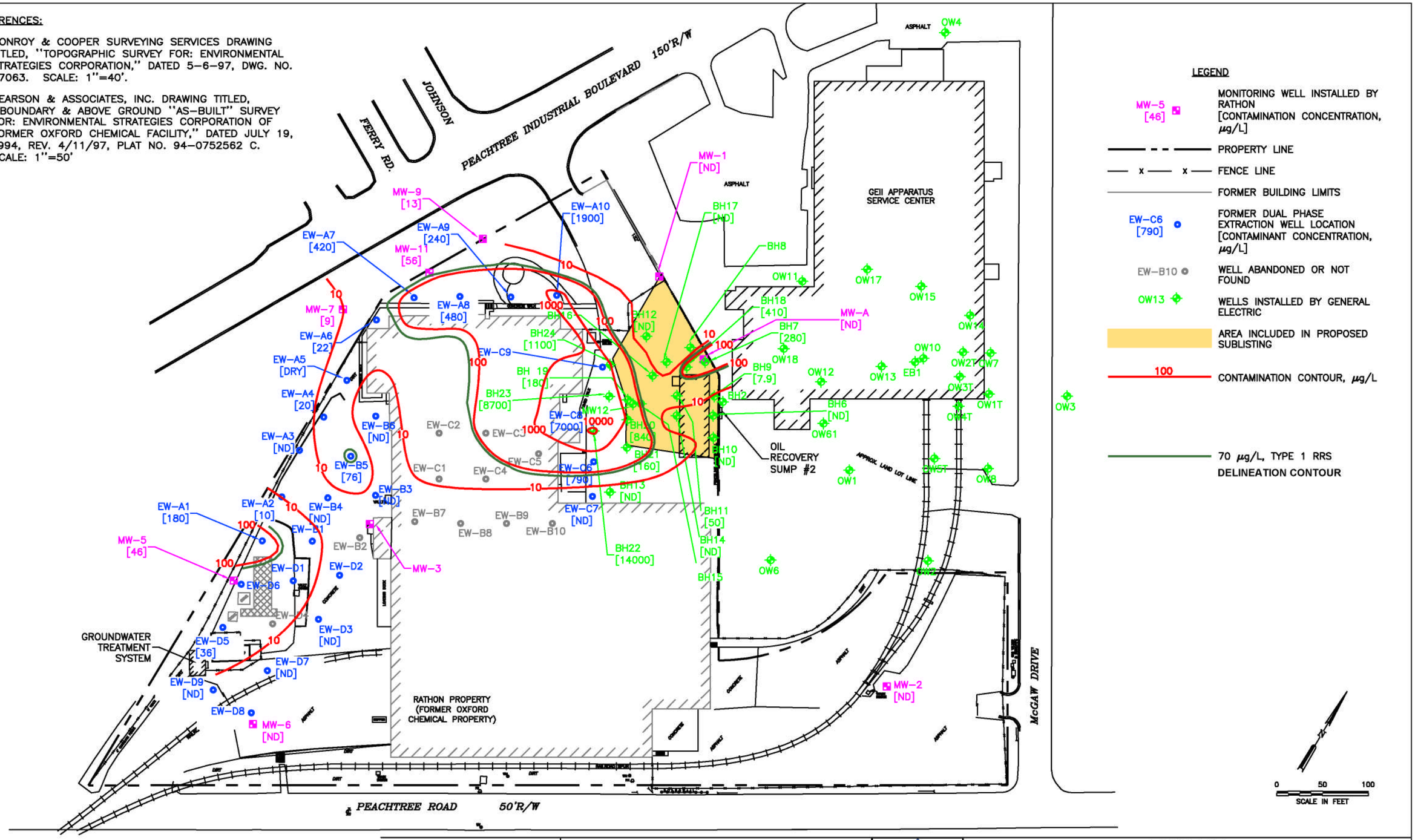
FIGURE 16
TRICHLOROETHENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 70 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

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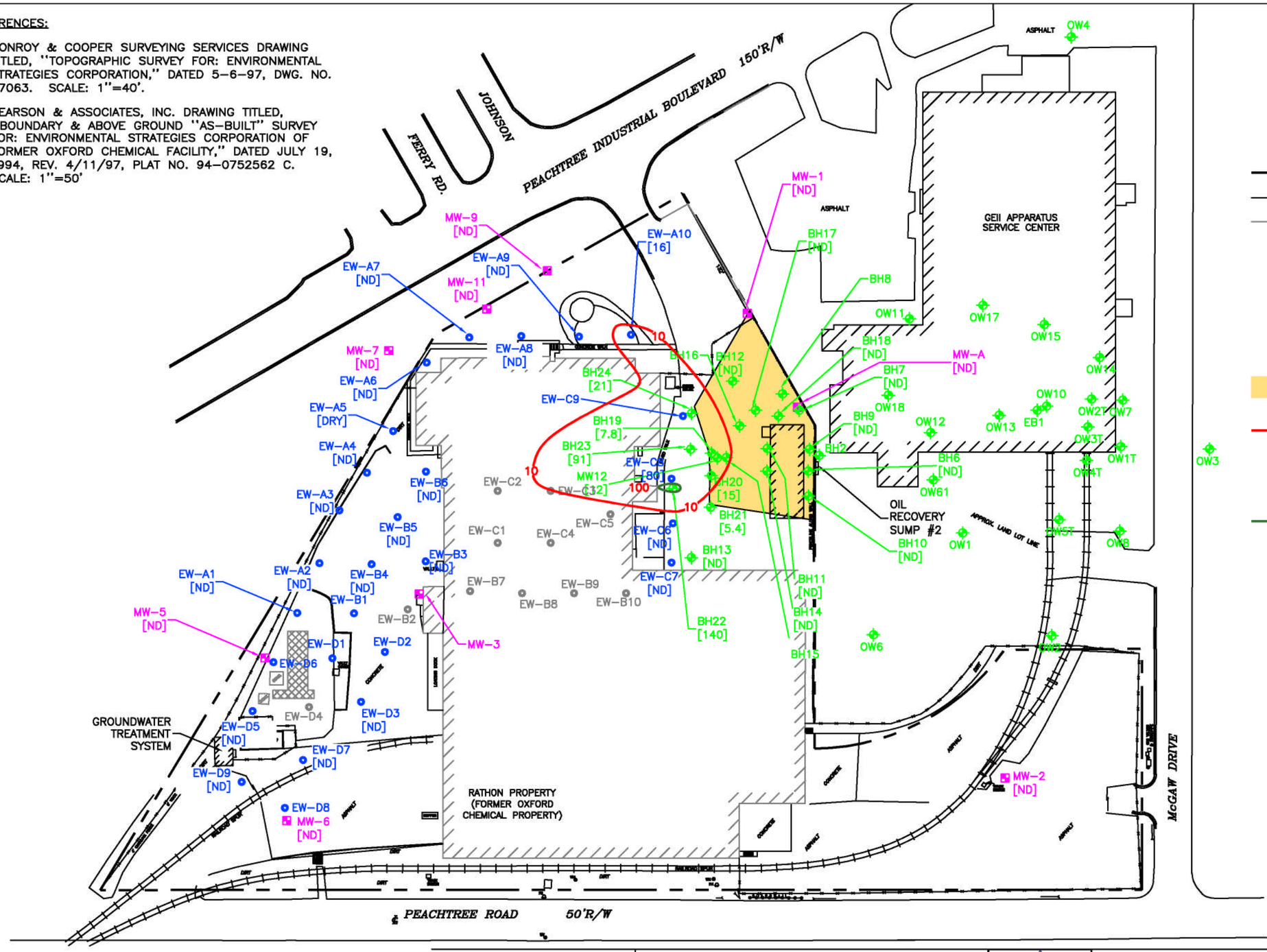
FIGURE 17
CIS-1,2-DICHLOROETHENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 100 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

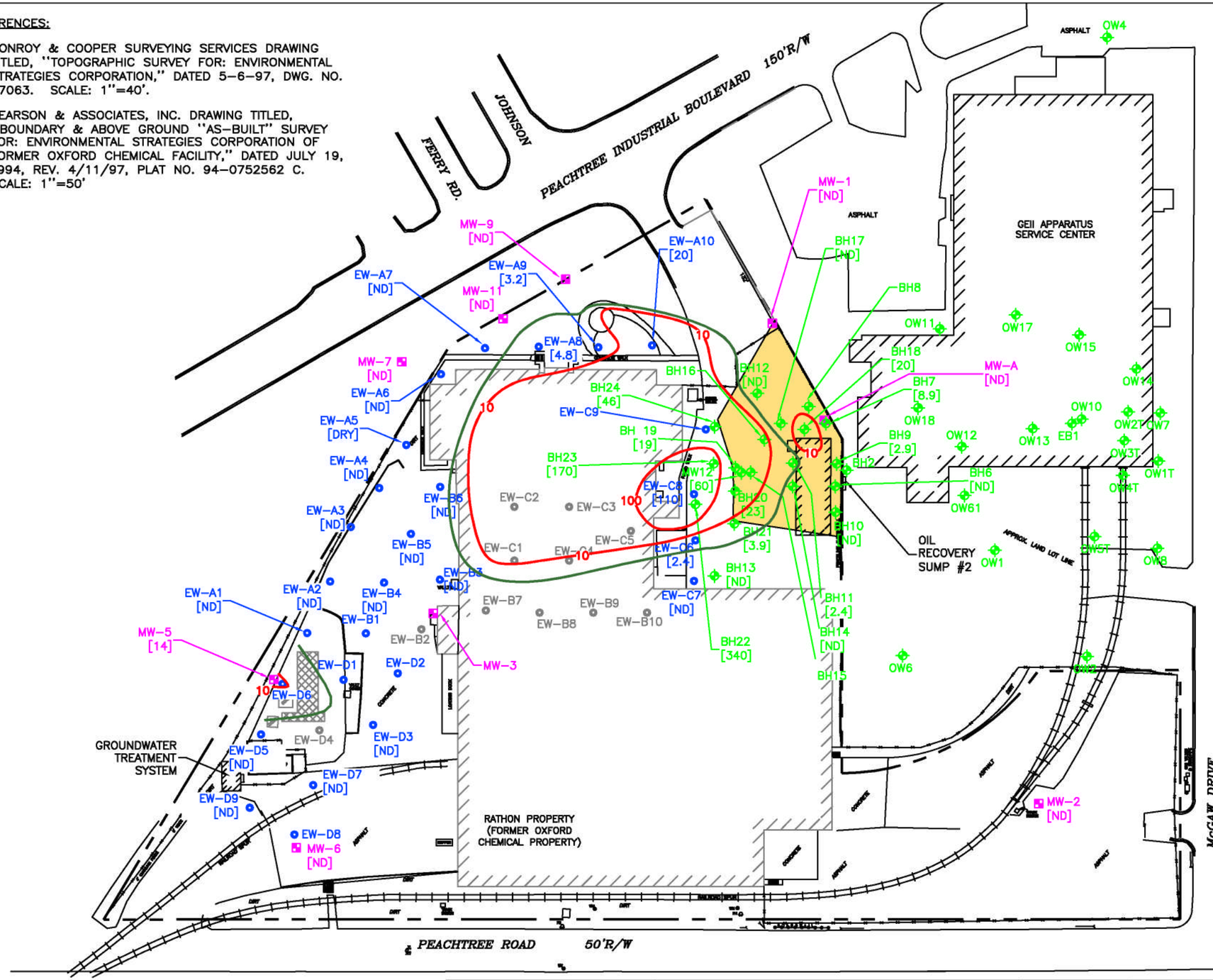
WOODARD & CURRAN

FIGURE 18
TRANS-1-2-DICHLOROETHENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 2 µg/L, TYPE 1 RRS DELINEATION CONTOUR

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

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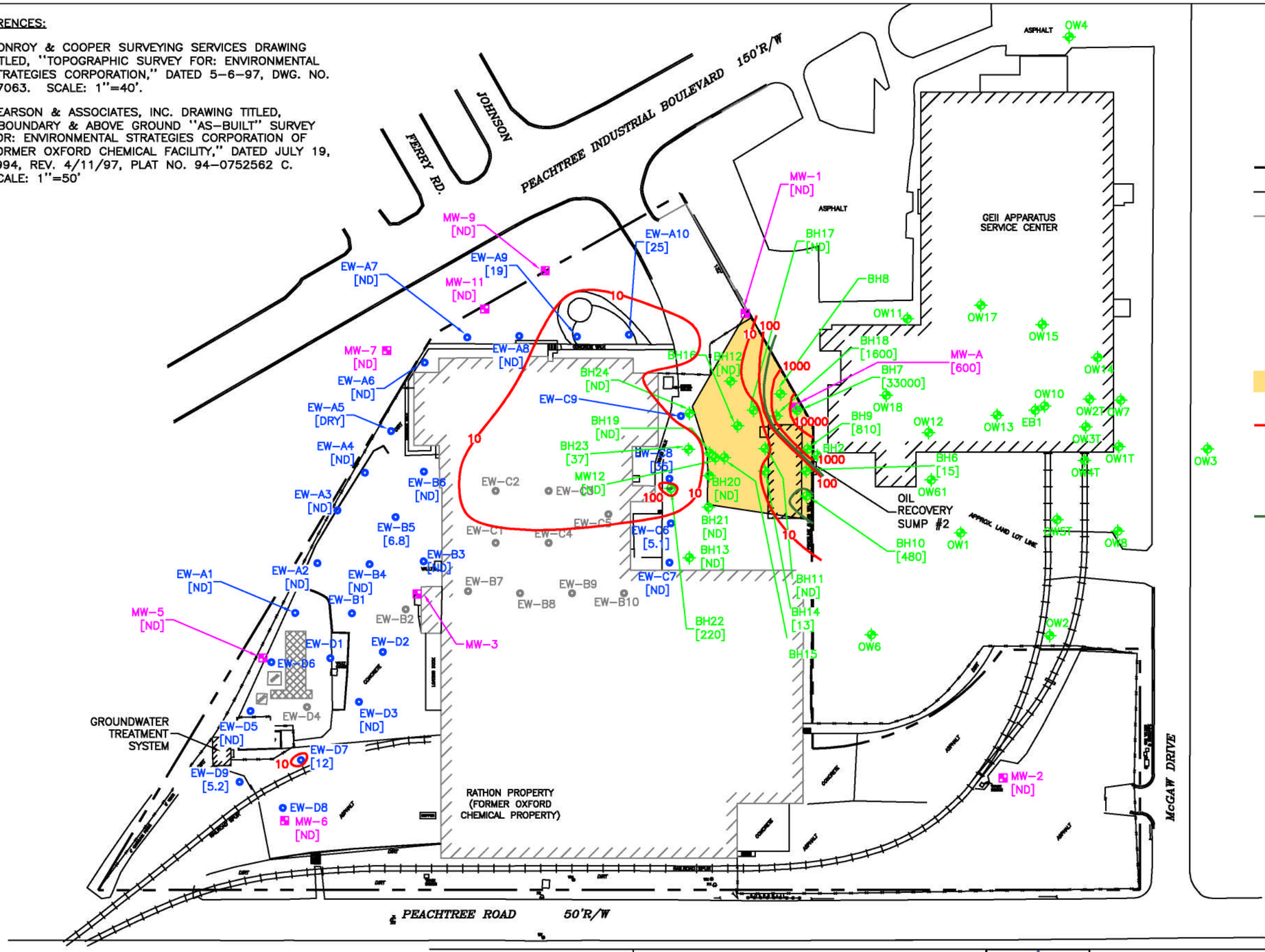
FIGURE 19
VINYL CHLORIDE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 200 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

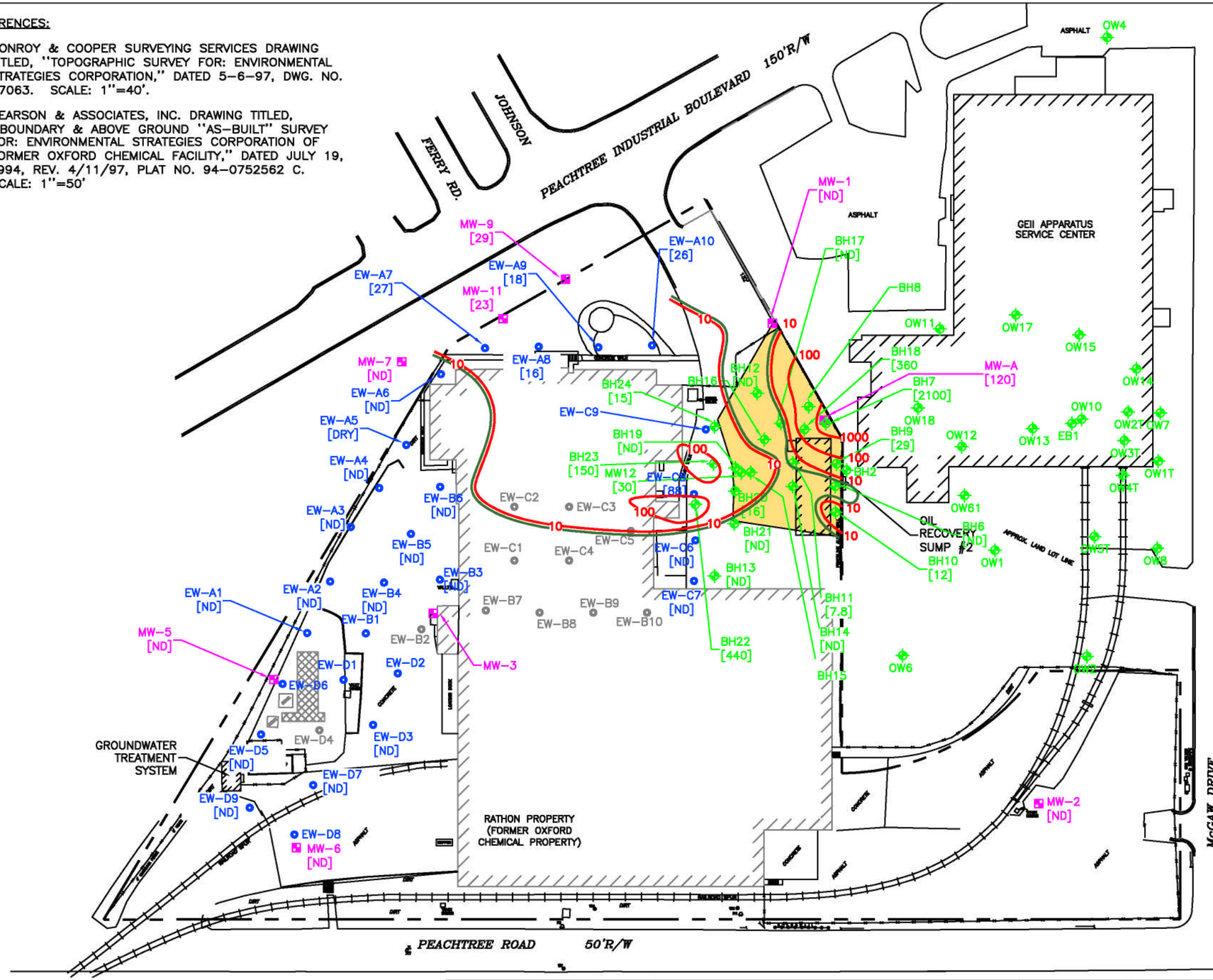
WOODARD & CURRAN

FIGURE 20
1,1,1-TRICHLOROETHANE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 7 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

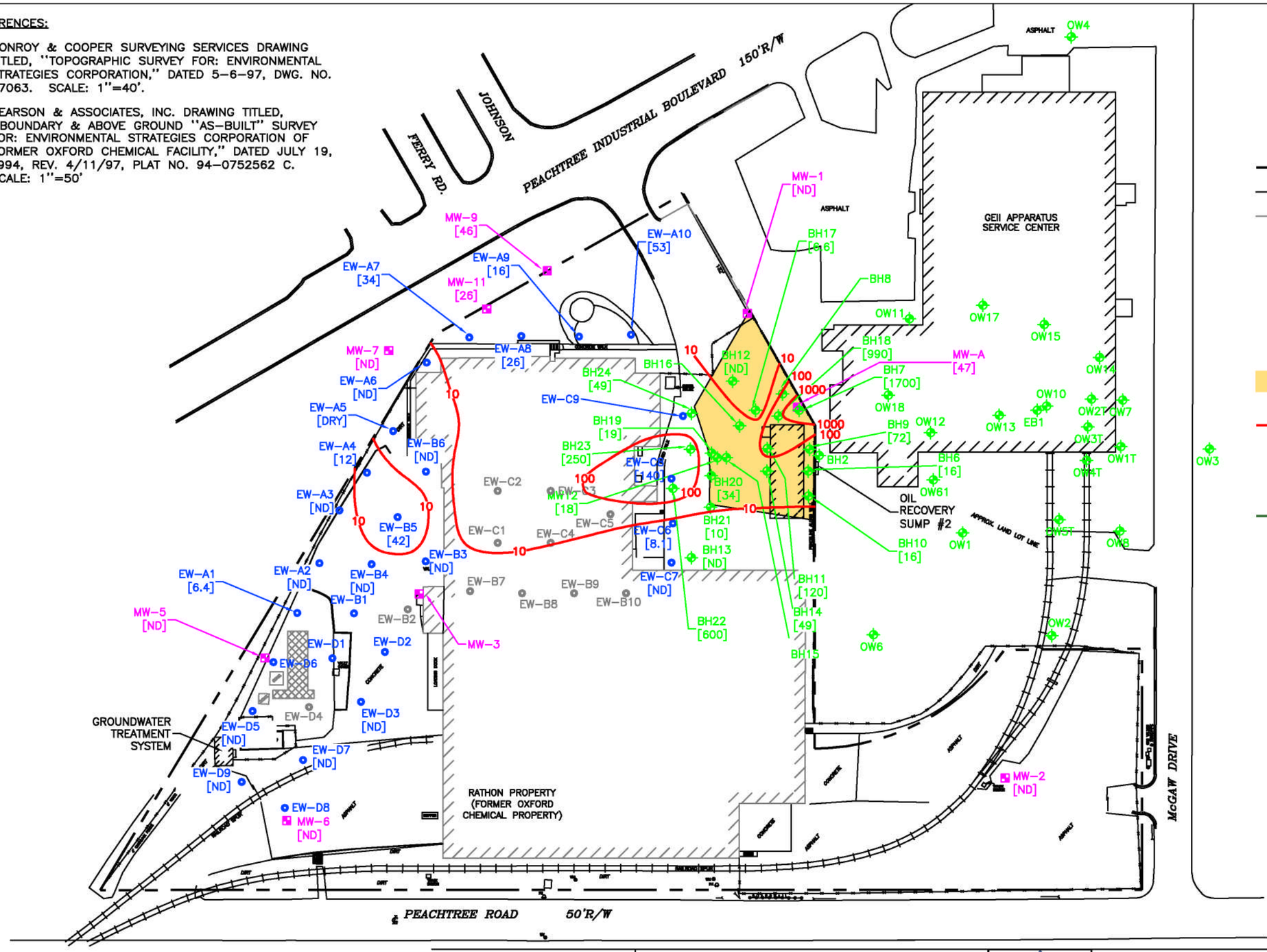
WOODARD & CURRAN

FIGURE 21
1,1-DICHLOROETHENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 4000 µg/L, TYPE 1 RRS DELINEATION CONTOUR "NO DETECTIONS > Type 1 RRS"

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

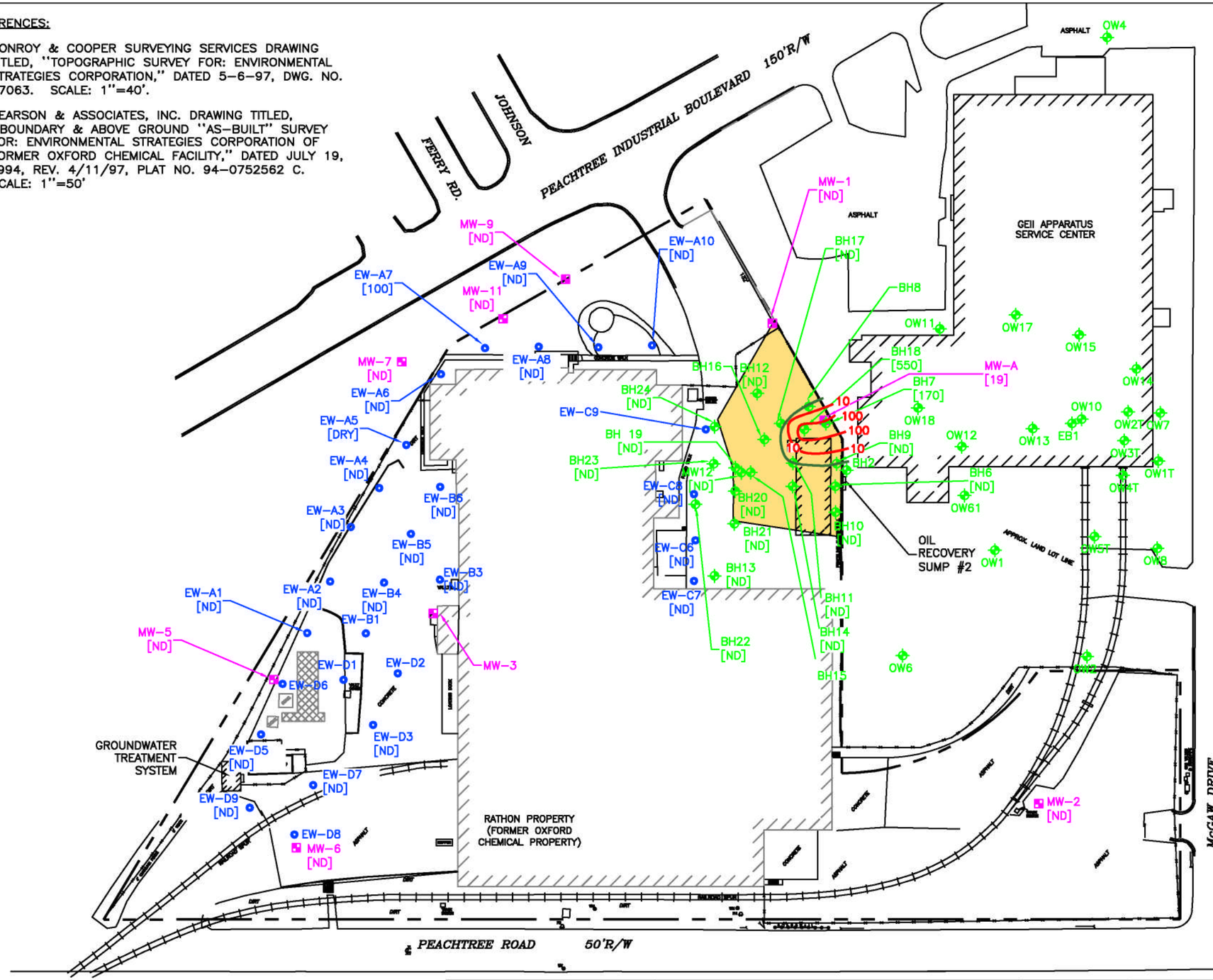
WOODARD & CURRAN

FIGURE 22
1,1-DICHLOROETHANE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- DETECTION LIMIT, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

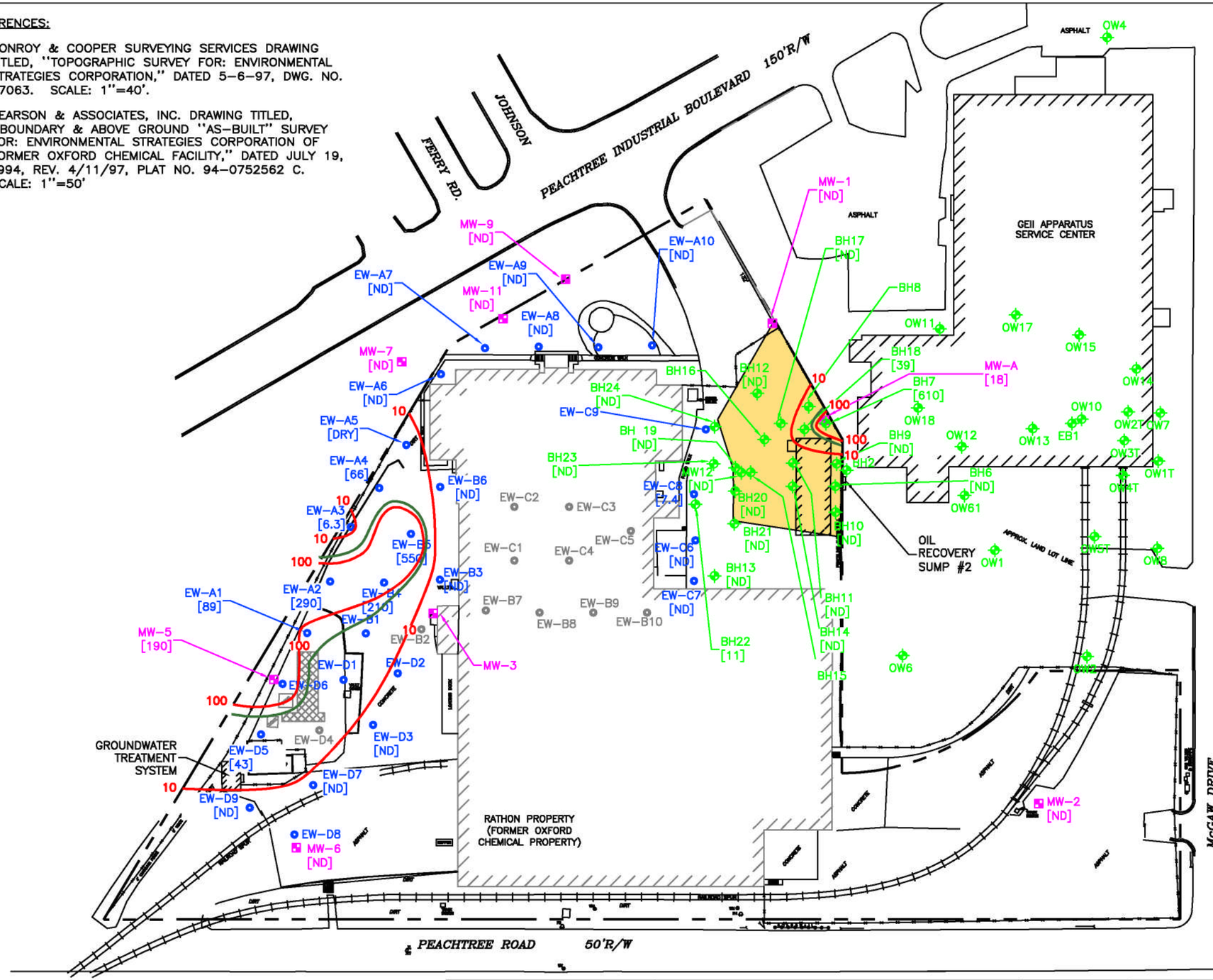
WOODARD & CURRAN

FIGURE 23
CHLOROETHANE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 70 µg/L, TYPE 1 RRS DELINEATION CONTOUR

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

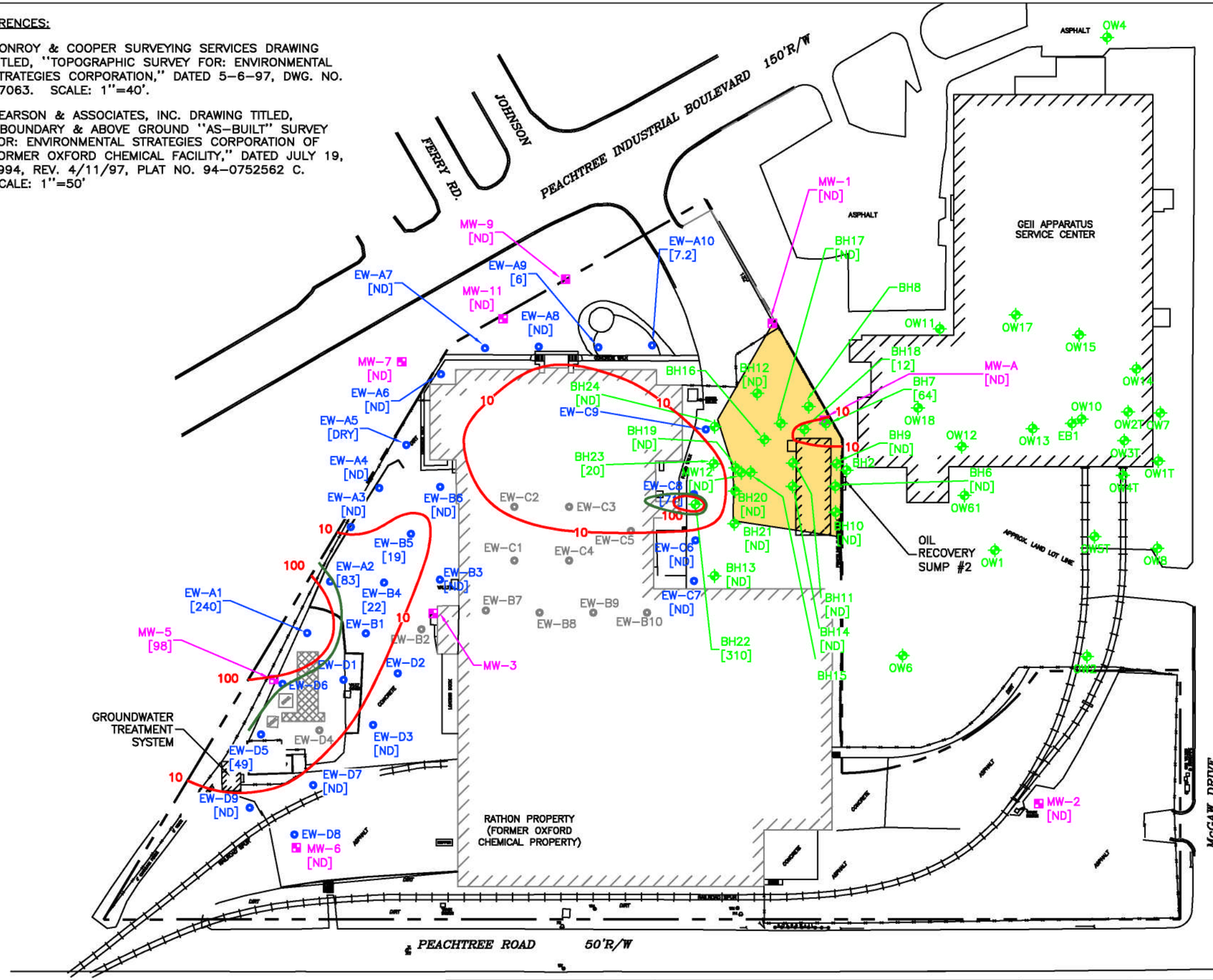
WOODARD & CURRAN

FIGURE 24
1,2,4-TRICHLOROBENZENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 75 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

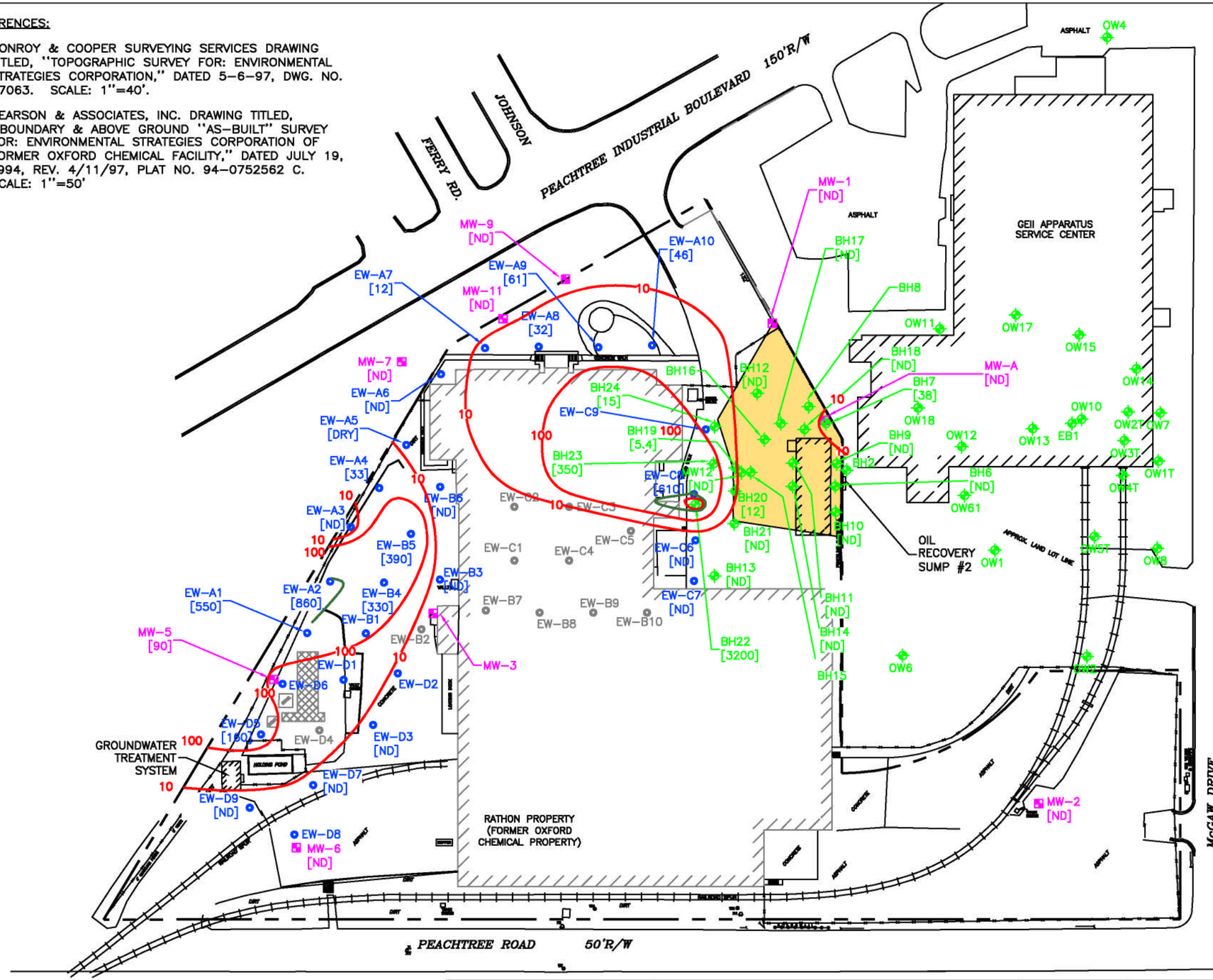
WOODARD & CURRAN

FIGURE 25
1,4-DICHLOROBENZENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 600 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

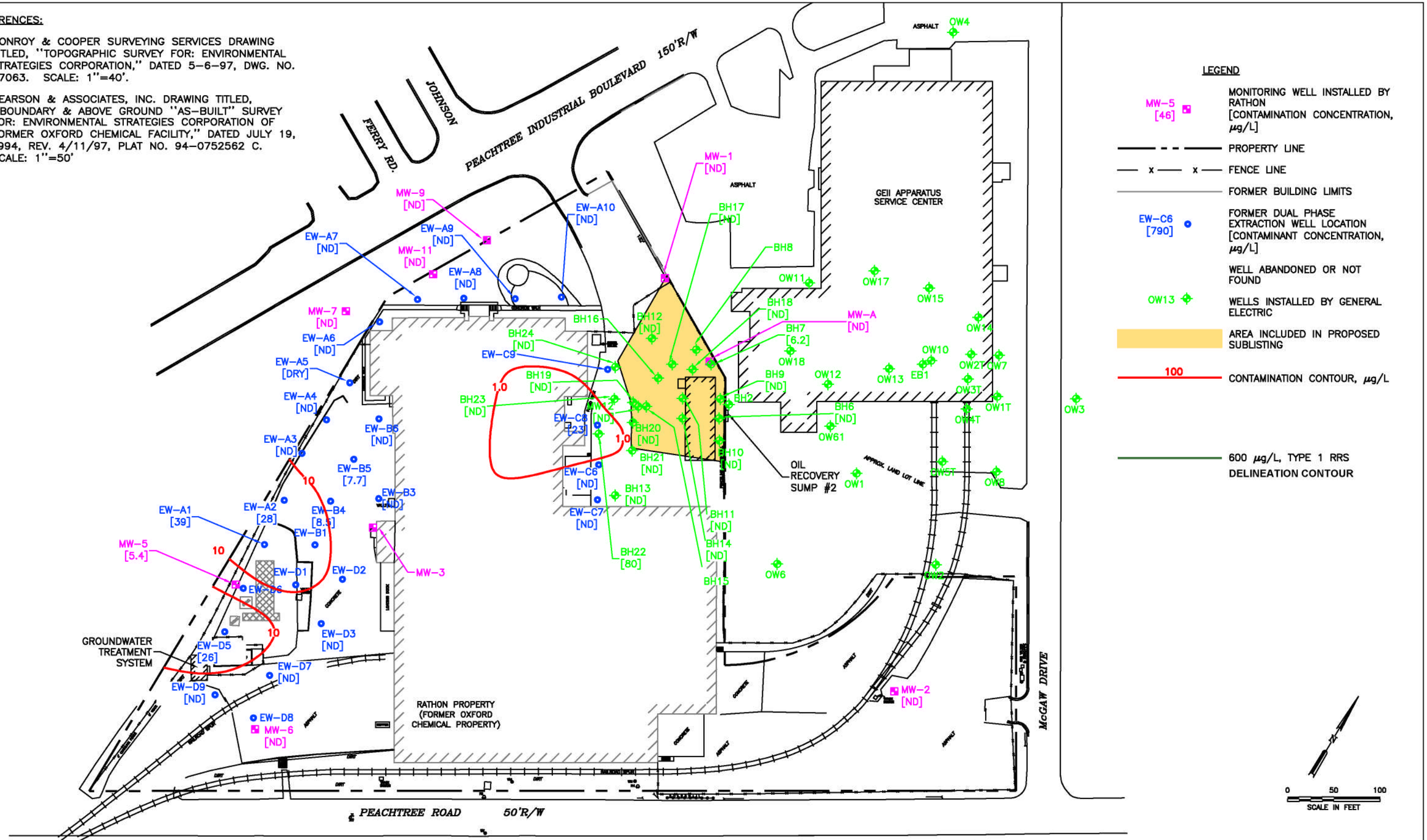
WOODARD & CURRAN

FIGURE 26
1,2-DICHLOROBENZENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 600 µg/L, TYPE 1 RRS DELINEATION CONTOUR

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

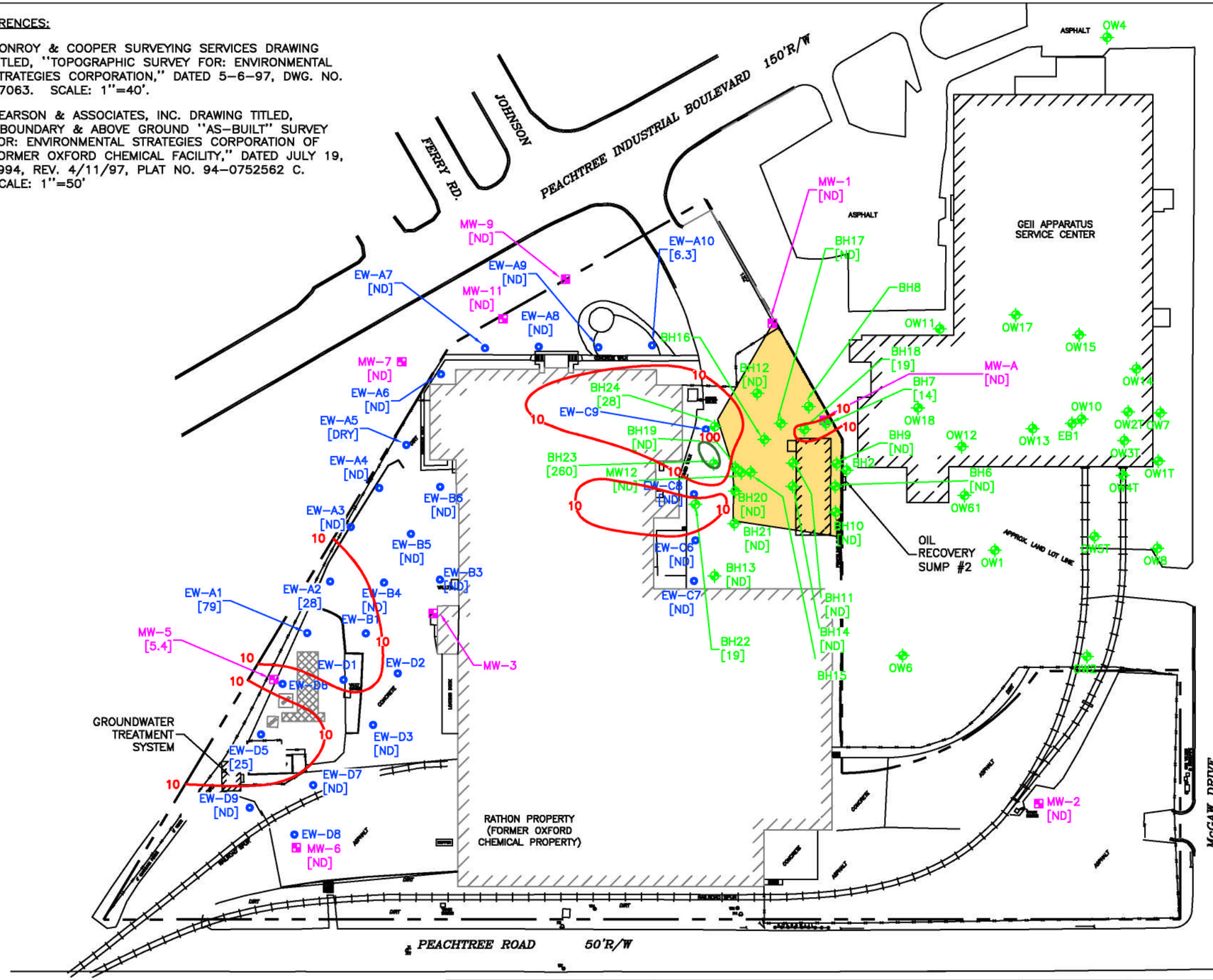
WOODARD & CURRAN

FIGURE 27
1,3-DICHLOROBENZENE CONCENTRATIONS IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'



LEGEND

- MW-5 [46] — MONITORING WELL INSTALLED BY RATHON [CONTAMINATION CONCENTRATION, µg/L]
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-C6 [790] — FORMER DUAL PHASE EXTRACTION WELL LOCATION [CONTAMINANT CONCENTRATION, µg/L]
- WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- 100 — CONTAMINATION CONTOUR, µg/L
- 100 µg/L, TYPE 1 RRS DELINEATION CONTOUR

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

WOODARD & CURRAN

FIGURE 28
CHLOROBENZENE CONCENTRATIONS IN GROUNDWATER JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
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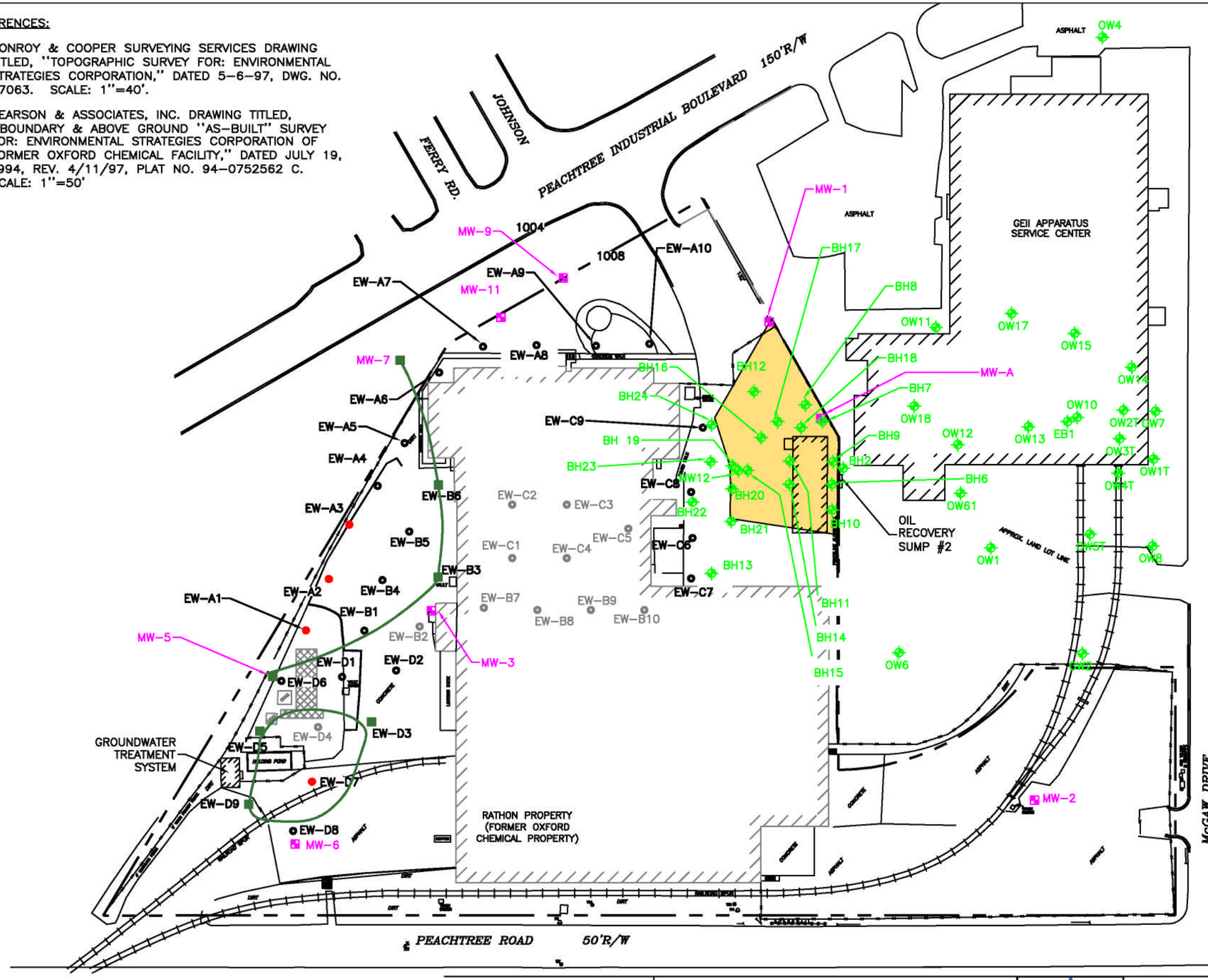

LEGEND

- MW-5 — MONITORING WELL INSTALLED BY RATHON
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-B6 — FORMER DUAL PHASE EXTRACTION WELL LOCATION
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- TYPE 1 RRS DELINEATION CONTOUR
- SAMPLE LOCATION – SVOCs NOT DETECTED OR DETECTED LESS THAN TYPE 1 RRS
- SAMPLE LOCATION – SVOCs DETECTED ABOVE TYPE 1 RRS

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

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FIGURE 29
TOTAL SVOCs IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
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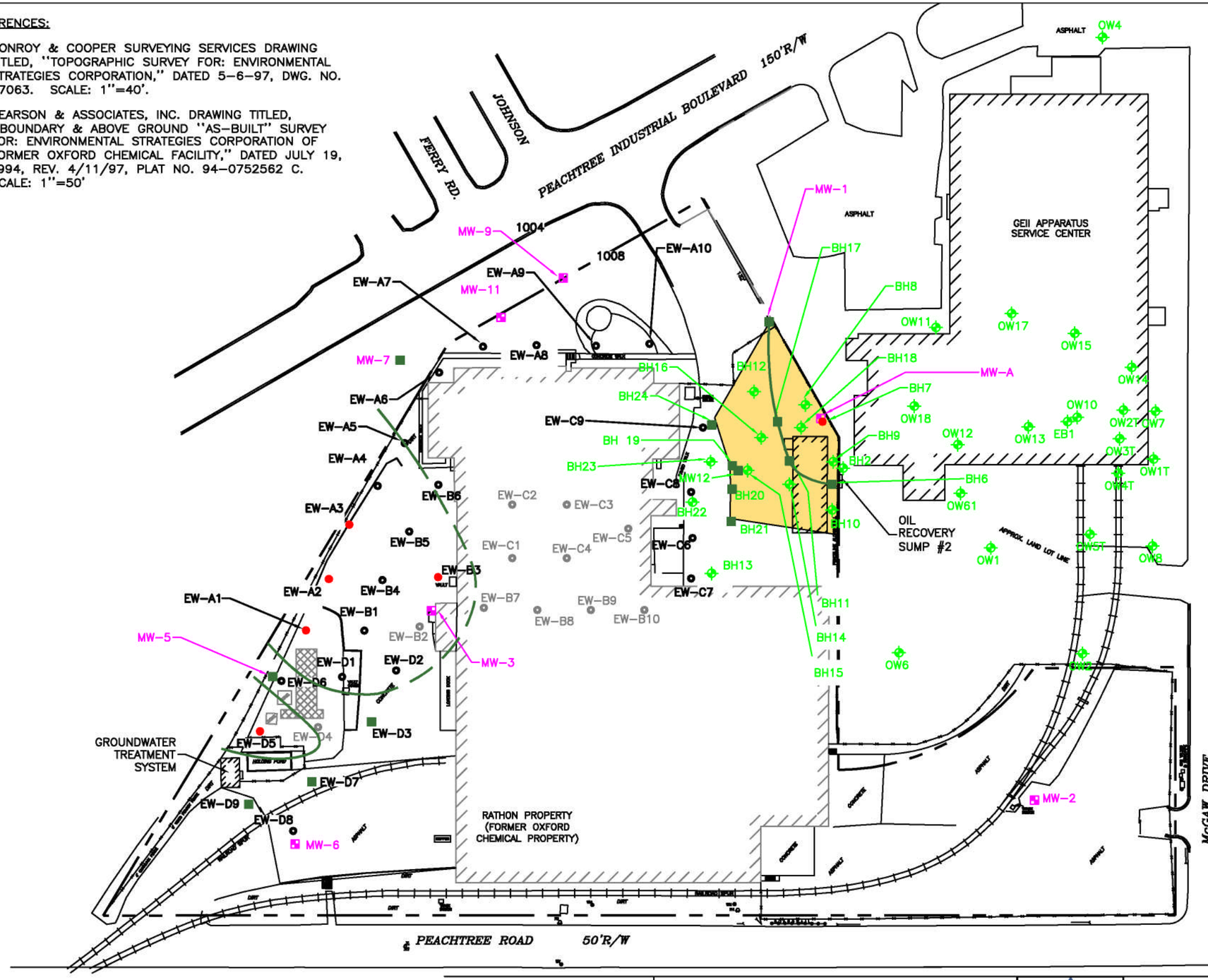

LEGEND

- MW-5 — MONITORING WELL INSTALLED BY RATHON
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-B6 — FORMER DUAL PHASE EXTRACTION WELL LOCATION
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- TYPE 1 RRS DELINEATION CONTOUR
- SAMPLE LOCATION – SVOCs NOT DETECTED OR DETECTED LESS THAN TYPE 1 RRS
- SAMPLE LOCATION – SVOCs DETECTED ABOVE TYPE 1 RRS

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

WOODARD & CURRAN

FIGURE 30
TOTAL PESTICIDES IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'.
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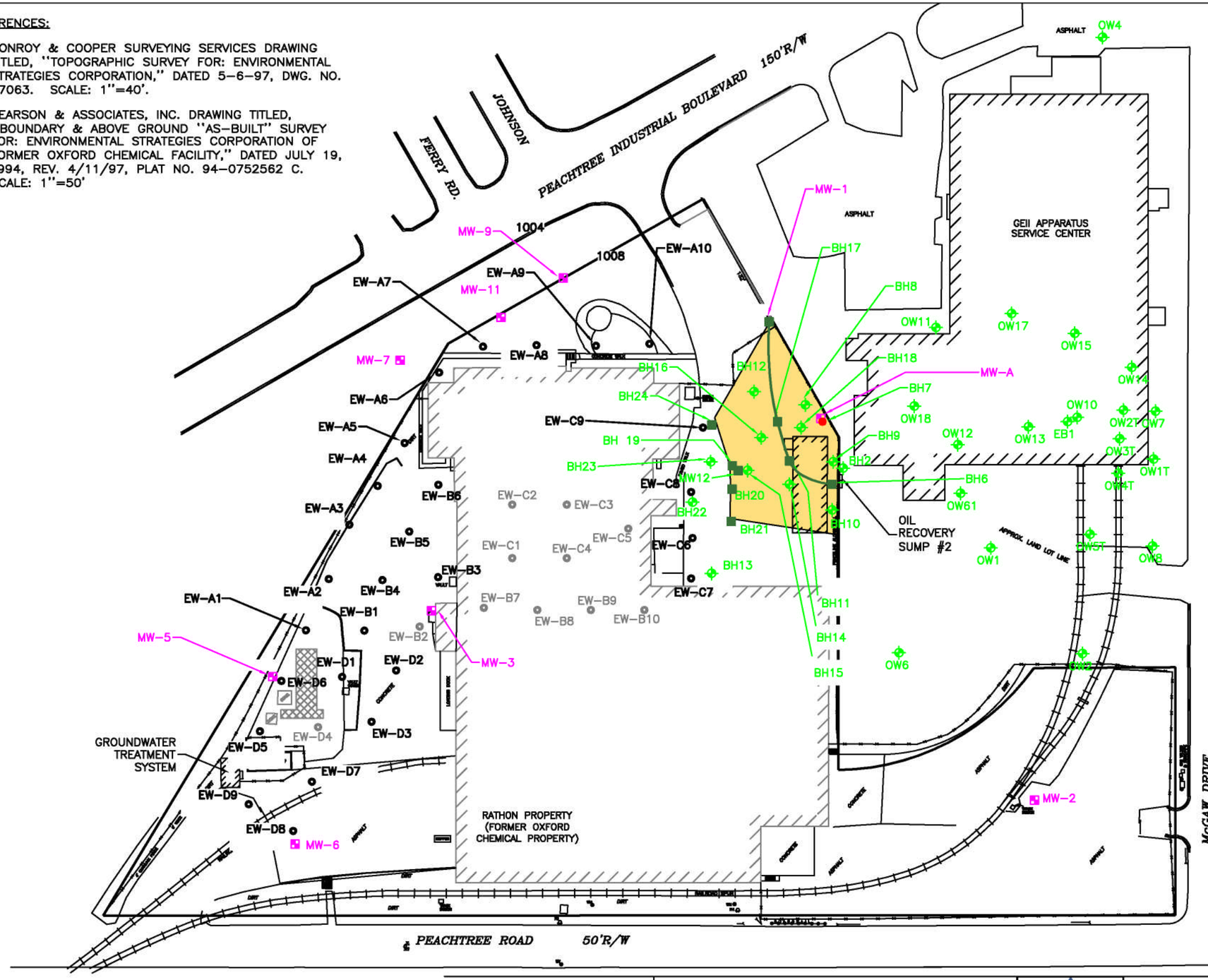


LEGEND

- MW-5 — MONITORING WELL INSTALLED BY RATHON
- PROPERTY LINE
- FENCE LINE
- FORMER BUILDING LIMITS
- EW-B6 — FORMER DUAL PHASE EXTRACTION WELL LOCATION
- EW-B10 — WELL ABANDONED OR NOT FOUND
- OW13 — WELLS INSTALLED BY GENERAL ELECTRIC
- AREA INCLUDED IN PROPOSED SUBLISTING
- TYPE 1 RRS DELINEATION CONTOUR
- SAMPLE LOCATION – SVOCs NOT DETECTED OR DETECTED LESS THAN TYPE 1 RRS
- SAMPLE LOCATION – SVOCs DETECTED ABOVE TYPE 1 RRS

0 50 100
SCALE IN FEET

Drawn By: GHA	Date: 3-25-13
Checked by: LJD	Project No. 226278

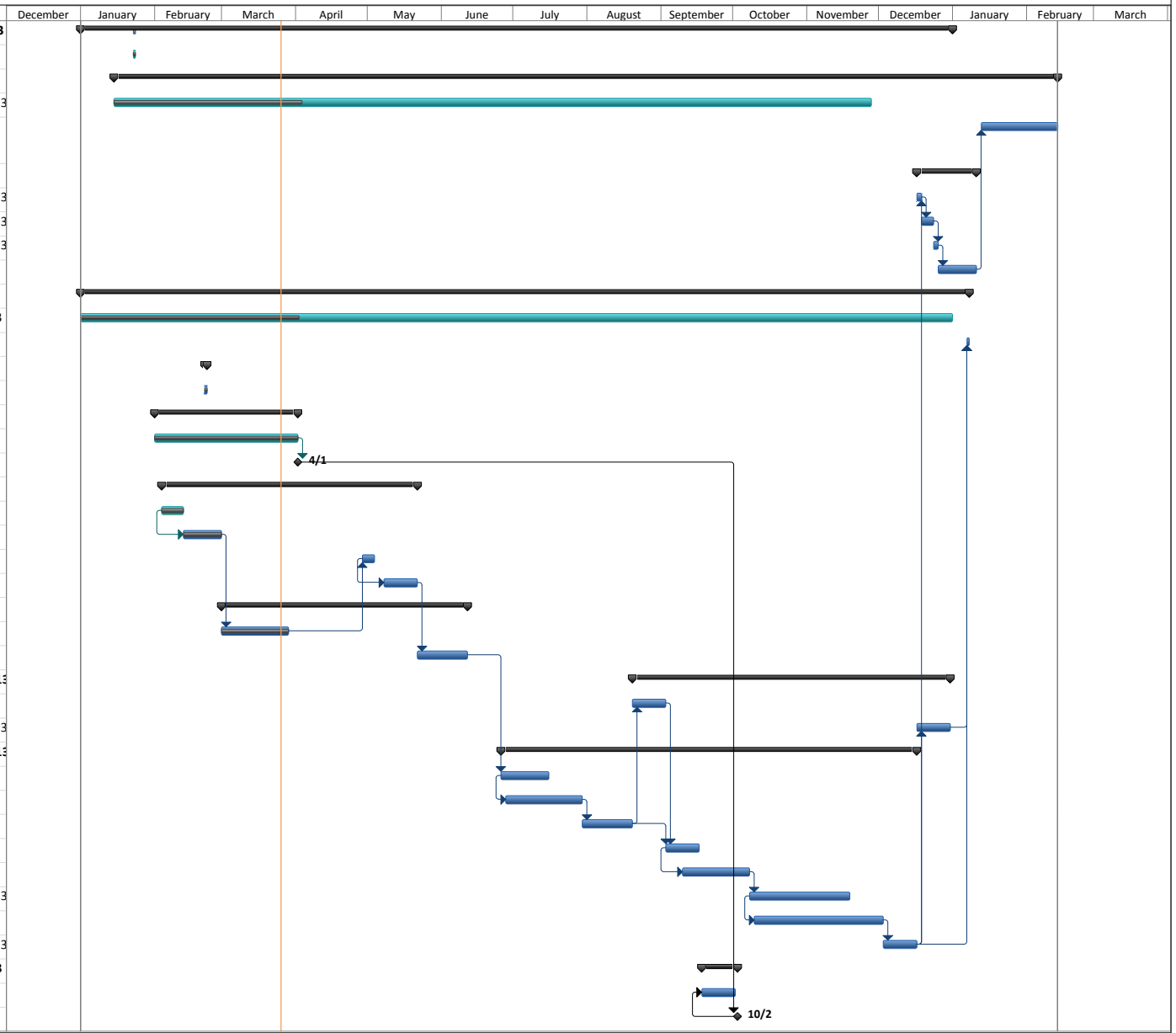
WOODARD & CURRAN

FIGURE 31
TOTAL PCBs IN GROUNDWATER
JANUARY 24, 2011

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BOULEVARD
CHAMBLEE, GA

Figure 32
2013 VRP Schedule

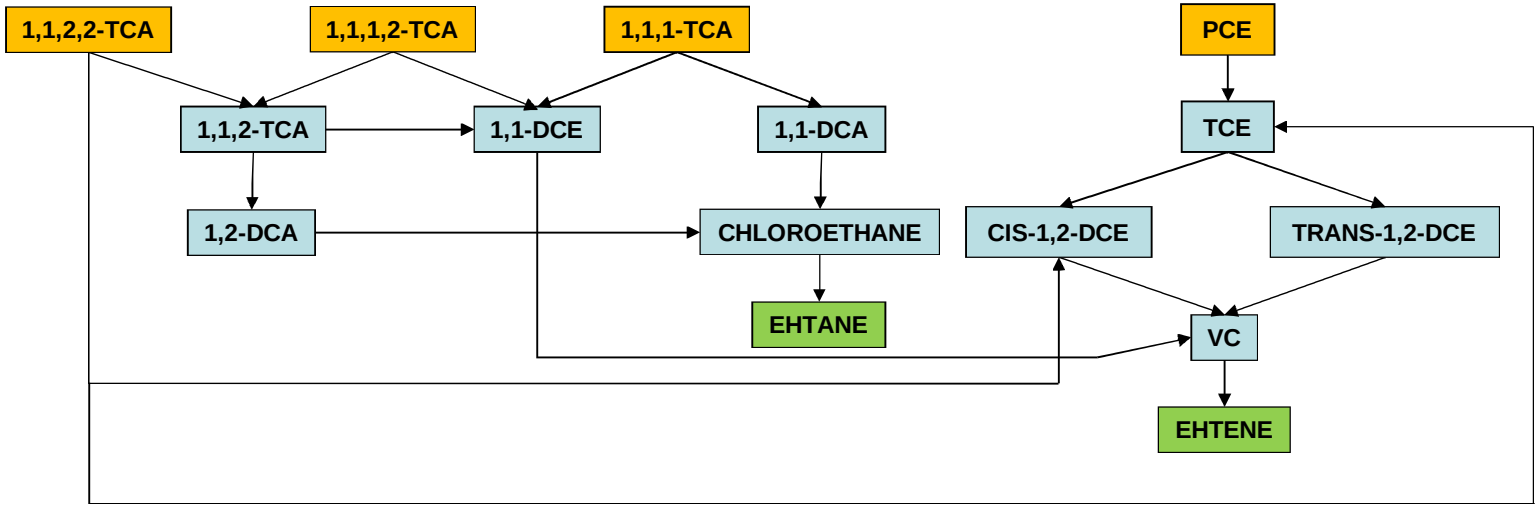
ID	Task Name	Duration	Start	Finish
1	**Groundskeeping**	**261 days**	**Tue 1/1/13**	**Tue 12/31/13**
2	Fence Installation	1 day	Wed 1/23/13	Wed 1/23/13
3	**GW Capture System O&M and Reporting**	**283 days**	**Tue 1/15/13**	**Thu 2/13/14**
4	Monthly Reporting w/o system operating	227 days	Tue 1/15/13	Wed 11/27/13
5	Monthly Sampling & Reporting w/ system operating	24 days	Mon 1/13/14	Thu 2/13/14
6	**GW Capture System Repairs**	**19 days**	**Tue 12/17/13**	**Fri 1/10/14**
7	Recovery Pump Replacements	2 days	Tue 12/17/13	Wed 12/18/13
8	Well Abandonment/Replacement	3 days	Thu 12/19/13	Mon 12/23/13
9	Assess Return Lines	2 days	Tue 12/24/13	Wed 12/25/13
10	Recovery Line Repair/Replacement	12 days	Thu 12/26/13	Fri 1/10/14
11	**Interaction with GE**	**266 days**	**Tue 1/1/13**	**Tue 1/7/14**
12	Monitoring of Activities and Access Agreement	261 days	Tue 1/1/13	Tue 12/31/13
13	Meeting with GE re: Groundwater	1 day	Tue 1/7/14	Tue 1/7/14
14	**EPD Meetings/Interaction**	**1 day**	**Fri 2/22/13**	**Fri 2/22/13**
15	Notify EPD of intent to enter VRP	1 day	Fri 2/22/13	Fri 2/22/13
16	**Submittal of VRP Application**	**42 days**	**Fri 2/1/13**	**Mon 4/1/13**
17	VRP Application Preparation	42 days	Fri 2/1/13	Mon 4/1/13
18	Submittal of VRP Application	0 days	Mon 4/1/13	Mon 4/1/13
19	**Soil Delineation**	**77 days**	**Mon 2/4/13**	**Tue 5/21/13**
20	Fieldwork	7 days	Mon 2/4/13	Tue 2/12/13
21	Laboratory Analysis	12 days	Wed 2/13/13	Thu 2/28/13
22	Additional Soil Delineation Fieldwork	5 days	Mon 4/29/13	Fri 5/3/13
23	Laboratory Analysis	10 days	Wed 5/8/13	Tue 5/21/13
24	**Soil Remediation to Non-Residential RRS Evaluation**	**73 days**	**Fri 3/1/13**	**Tue 6/11/13**
25	Initial Data Evaluation and Plan Preparation	20 days	Fri 3/1/13	Thu 3/28/13
26	Additional Data Evaluation and Plan Preparation	15 days	Wed 5/22/13	Tue 6/11/13
27	**Fate and Transport Modeling**	**95 days**	**Tue 8/20/13**	**Mon 12/30/13**
28	Modeling 1: w/ Property-Wide GW Data	10 days	Tue 8/20/13	Mon 9/2/13
29	Modeling 2:w/Delineated GW Data	10 days	Tue 12/17/13	Mon 12/30/13
30	**Shallow GW Delineation**	**124 days**	**Wed 6/26/13**	**Mon 12/16/13**
31	Collection of Property-Wide GW Data	14 days	Wed 6/26/13	Mon 7/15/13
32	Laboratory Analysis	22 days	Fri 6/28/13	Mon 7/29/13
33	GW Data Evaluation	15 days	Tue 7/30/13	Mon 8/19/13
34	Off-Site Delineation Plan Preparation	10 days	Tue 9/3/13	Mon 9/16/13
35	Obtain Offsite Access	20 days	Tue 9/10/13	Mon 10/7/13
36	Conduct Off-Site Delineation of GW	30 days	Tue 10/8/13	Mon 11/18/13
37	Laboratory Analysis	38 days	Thu 10/10/13	Mon 12/2/13
38	GW Data Evaluation	10 days	Tue 12/3/13	Mon 12/16/13
39	**VRP Status Report #1**	**11 days**	**Wed 9/18/13**	**Wed 10/2/13**
40	Preparation	10 days	Wed 9/18/13	Tue 10/1/13
41	Submittal	0 days	Wed 10/2/13	Wed 10/2/13

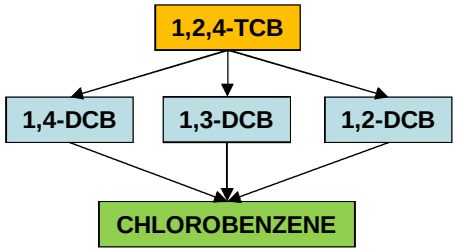


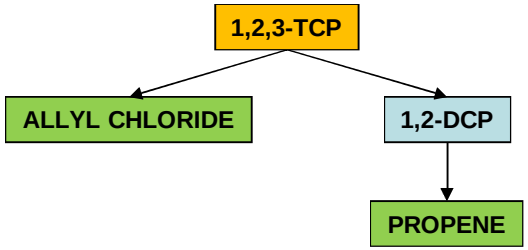
Project: Schedule 032613 VRP
Date: Tue 3/26/13

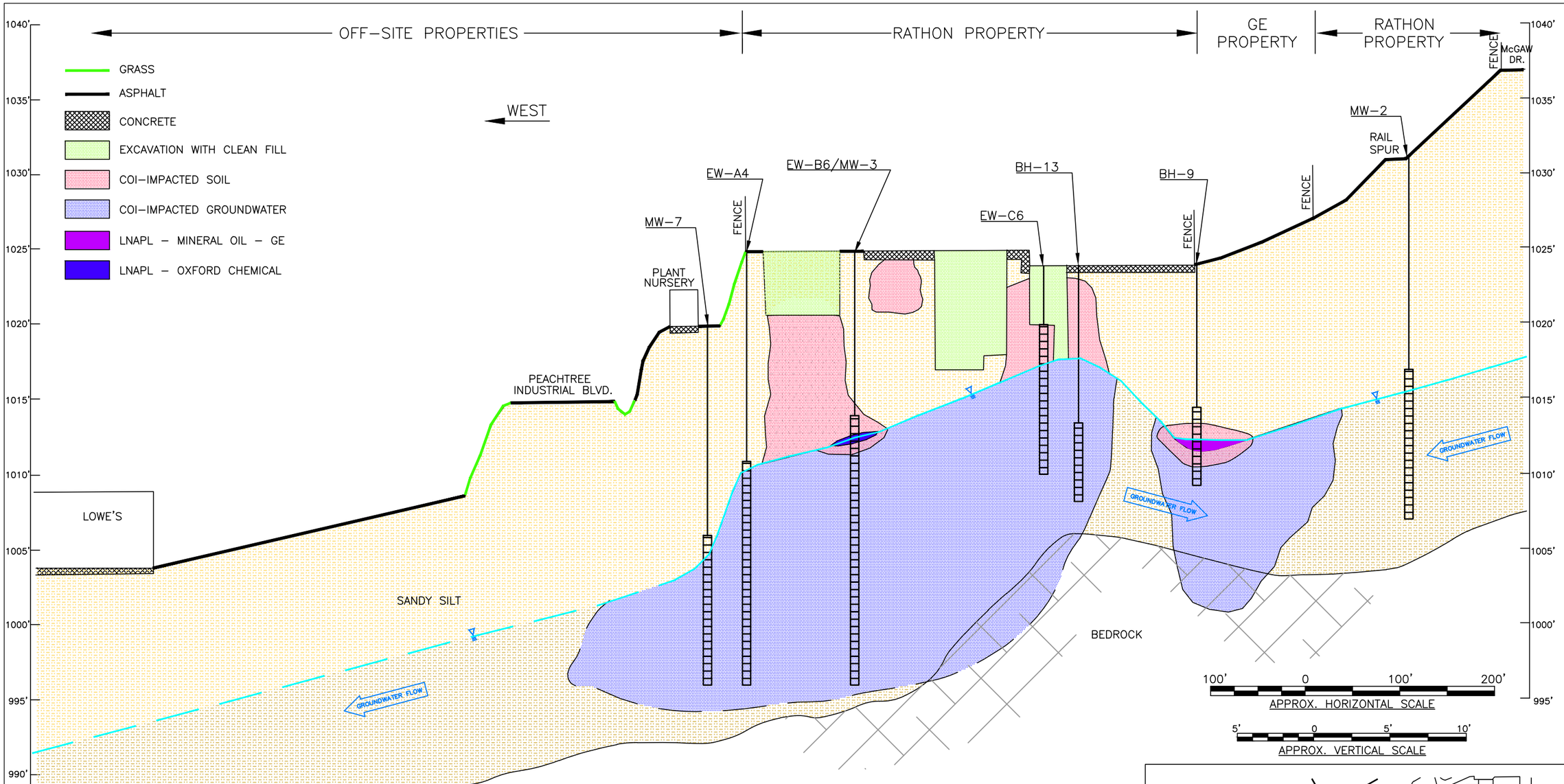
Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress

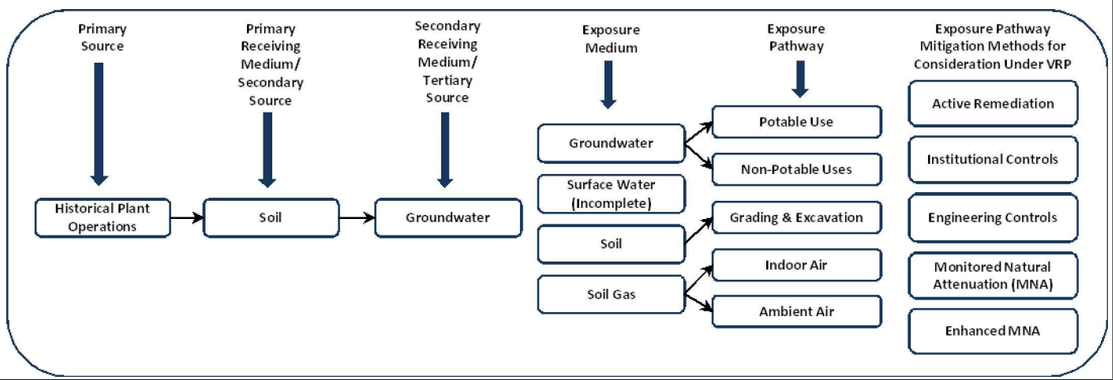
Figure 33
Examples of Potential Site VOC Anaerobic Degradation Pathways

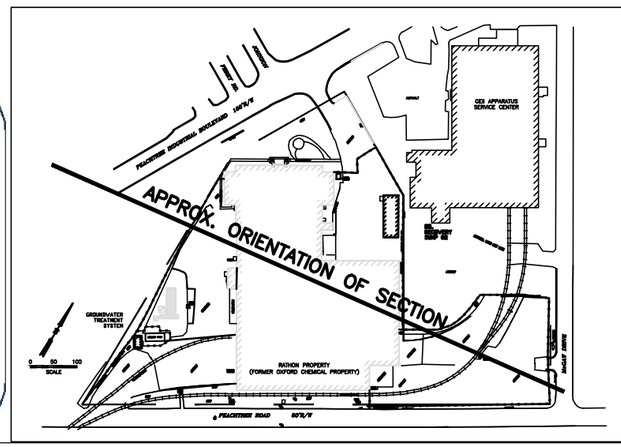












2055 Sugarloaf Circle, Suite 175
Duluth, Georgia 30097
770.622.6766 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

CONCEPTUAL SITE MODEL

DESIGNED BY: BRM
DRAWN BY: XXX
CHECKED BY: XXX
CSM.DWG

RATHON CORPORATION

FORMER OXFORD CHEMICAL PROPERTY
5001 PEACHTREE BLVD.
CHAMBLEE, GEORGIA

JOB NO: 226278
DATE: 3/26/2013
SCALE: AS SHOWN

FIGURE 34

Appendix A
Warranty Deed

Return Recorded Document to

The Beltrami Law Firm, P.C.
5871 Glenridge Drive
Suite 230
Atlanta, GA 30328

2007651699 DEED BOOK **20517** Pg **373**
Real Estate Transfer Tax $50 00
Filed and Recorded
12/20/2007 12 35 54 PM
Linda Carter
Clerk of Superior Court
DeKalb County, Georgia

LIMITED
WARRANTY DEED

STATE OF GEORGIA
COUNTY OF FULTON

File # **6C-1**

THIS INDENTURE, Made the 14th day of **November**, in the year **2007**, between **Rathon Corp., Inc.,** a corporation organized and existing under the laws of the State of Delaware and successor-in-interest to Oxford Chemicals, Inc , as party or parties of the first part, hereinafter called Grantor, and **Doyle L. Shugart**, as party or parties of the second part, hereinafter called Grantee (the words "Grantor" and "Grantee" to include their respective heirs, successors and assigns where the context requires or permits)

WITNESSETH that Grantor for and in consideration of the sum of **Fifty Thousand and 00/100 ($50,000.00)** DOLLARS in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto the said Grantee,

See Exhibit "A" attached hereto and incorporated herein by reference

This conveyance and the warranties contained herein are expressly made subject to all covenants, easements and restrictions of record

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of the said Grantee forever in FEE SIMPLE

AND THE SAID Grantor will warrant and forever defend the right and title to the above described property unto the said Grantee against the lawful claims of all persons claiming by, through or under Grantor

IN WITNESS WHEREOF. Grantor has signed and sealed this deed, the day and year above written

Signed, sealed and delivered
in the presence of:

Unofficial Witness

Notary Public

My Commission Expires: October 24, 2011

RATHON CORP., INC.,
a Delaware corporation

By Cynthia L. Goldman
Name Cynthia L. Goldman
Title Vice President

[CORPORATE SEAL]

EXHIBIT A

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN THE CITY OF CHAMBLEE IN LAND LOT 278 OF THE 18TH DISTRICT OF DEKALB COUNTY, GEORGIA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT AN IRON PIN ON THE SOUTHEASTERLY CONCRETE CURB LINE OF PEACHTREE ROAD 360.53 FEET SOUTHWESTERLY FROM THE INTERSECTION FORMED BY THE SOUTHEASTERLY CONCRETE CURB LINE OF PEACHTREE ROAD WITH A NAIL AND CAP LOCATED IN THE CENTER LINE OF NEW PEACHTREE ROAD; THENCE EXTENDING SOUTHWESTERLY ALONG THE SOUTHEASTERLY CONCRETE CURB LINE OF PEACHTREE ROAD 284.24 FEET TO AN IRON PIN ON THE NORTHEASTERLY RIGHT OF WAY LINE OF A SPUR TRACK NOW OR FORMERLY BELONGING TO THE SOUTHERN RAILWAY SYSTEM; THENCE EXTENDING ALONG THE NORTHEASTERLY RIGHT OF WAY LINE OF SAID TRACK AND ON A LINE FORMING AN INTERIOR ANGLE OF 139 DEGREES 42 MINUTES WITH THE LAST DESCRIBED COURSE 67.84 FEET TO AN IRON PIN ON THE NORTHERLY RIGHT OF WAY LINE OF A MAIN TRACK OF SAID RAILROAD; THENCE EXTENDING NORTHEASTERLY ALONG SAID RIGHT OF WAY LINE 335.99 FEET TO AN IRON PIN; THENCE EXTENDING NORTHWESTERLY ALONG A LINE FORMING AN INTERIOR ANGLE OF 90 DEGREES WITH THE LAST DESCRIBED COURSE 43.88 FEET TO THE POINT OF BEGINNING; AND BEING A PART OF LOT NO. 1 AND PART OF LOT NO. 2 AS PER PLAT DESIGNATED "PLAN SHOWING PROPERTY OF E.E. ROBINSON", MADE BY E.B. RESPESS, CIVIL ENGINEER DATED FEBRUARY 1946 AND RECORDED IN PLAT BOOK 14, PAGE 24, OF THE DEKALB COUNTY RECORDS; AND BEING THE SAME PROPERTY SHOWN ON A PLAT DESIGNATED "SURVEY OF PROPERTY FOR GENDEX REALTY CORPORATION", MADE BY URBAN ENGINEERS, INC., DATED AUGUST 29, 1967, SAID PLAT BEING MADE A PART HEREOF; SAID PROPERTY BEING ALL OF THAT PROPERTY CONVEYED TO THE PARTY OF THE FIRST PART BY CONSOLIDATED FOODS CORPORATION, A MARYLAND CORPORATION, BY WARRANTY DEED DATED OCTOBER 6, 1980 AND RECORDED IN THE CLERK'S OFFICE, SUPERIOR COURT , DEKALB COUNTY, GEORGIA ON OCTOBER 9, 1980, IN BOOK 4353, PAGE 46.

SUBJECT HOWEVER, TO: ALL VALID EASEMENTS & RESTRICTIONS OF RECORD AND ALL ZONING ORDINANCES AFFECTING THE USE OF THE PROPERTY CONVEYED.

Appendix B
Historical Tables and Figures

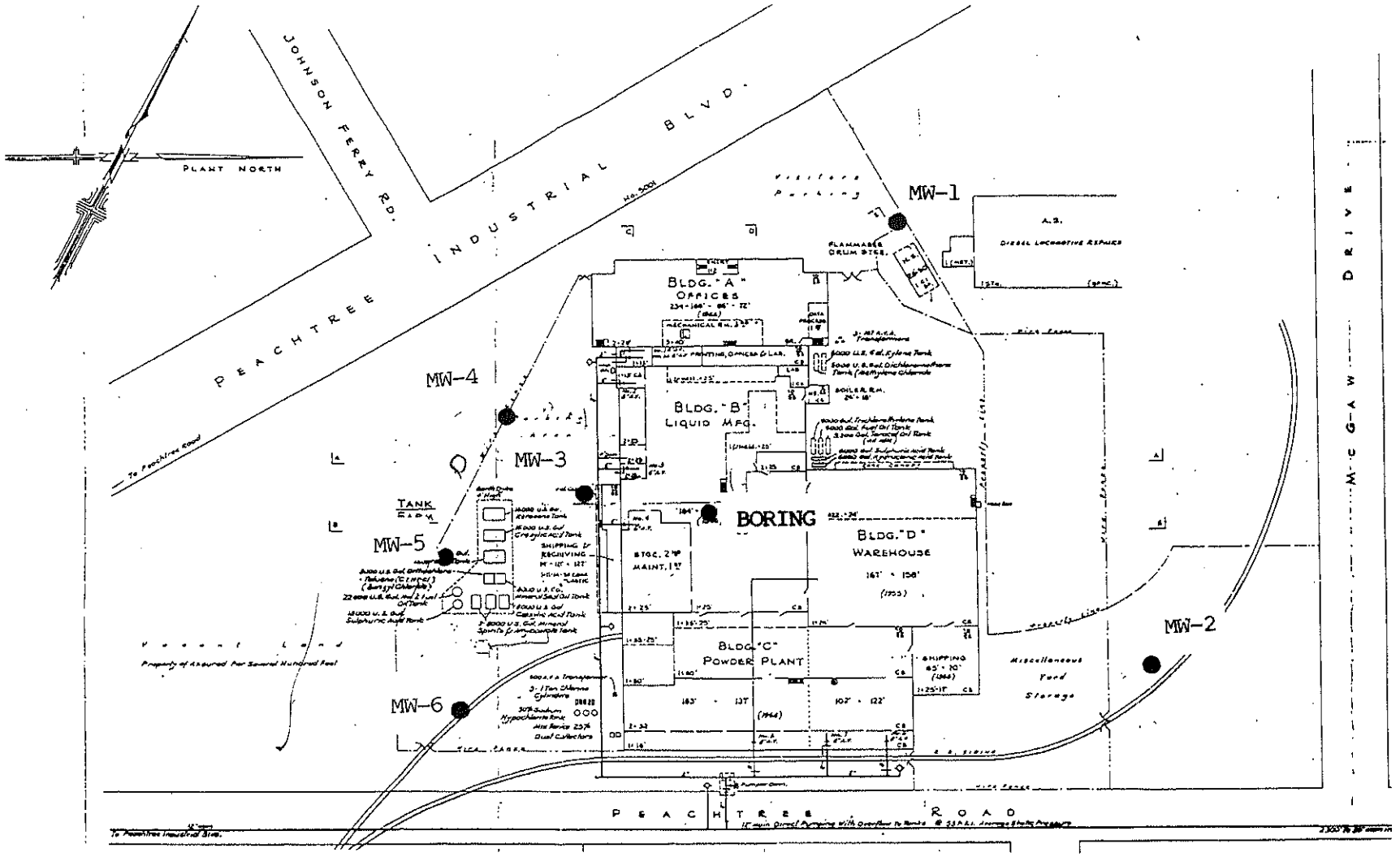
- June 17, 1988, Environmental Strategies Corporation, Assessment of Environmental Impacts at Oxford Chemicals, Inc. in Chamblee, Georgia
- October 10, 1991, Environmental Strategies Corporation, Floating Product Investigation – Well MW-3
- July 27, 1993, Environmental Strategies Corporation, Supplemental Soil and Groundwater Investigation at the Former Oxford Chemical, Inc., Chamblee, Georgia
- August 1993, Environmental Resource Management-North Carolina, Inc., Review of Environmental Conditions at the Oxford Chemicals, Inc. Site, Chamblee, Georgia
- June 6, 2003, Environmental Strategies Corporation, Report on Environmental Conditions, Former Oxford Chemicals, Chamblee, Georgia
- December 1, 2005, Environmental Strategies Consulting, LLC, Corrective Action Plan, Rathon Corp. Property Sublisted Under HSI #10072, Chamblee, Georgia
- 1995, 1996 and 2004, GES LNAPL Data

ASSESSMENT OF ENVIRONMENTAL IMPACTS AT OXFORD CHEMICALS, INC. IN CHAMBLEE, GEORGIA

PREPARED BY

ENVIRONMENTAL STRATEGIES CORPORATION

JUNE 17, 1988



ENVIRONMENTAL STRATEGIES CORPORATION
8521 Leesburg Pike Suite 650
Vienna, Virginia 22180
703-821-3700

Figure 3 - Monitoring Well Locations

ESC

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive • Reston, Virginia 22090 • (703) 709-6500 • FAX (703) 709-8505

DUPLICATE

#510

October 10, 1991

PRIVILEGED AND CONFIDENTIAL
PREPARED AT THE REQUEST OF COUNSEL

Susan Rabkin, Esquire
Corporate Solicitor
Diversey Corporation
201 City Centre Drive
Mississauga, Ontario
Canada L5B 2Z9

Re: Floating Product Investigation - Well MW-3

Dear Ms. Rabkin:

On August 21, 1991, Environmental Strategies Corporation (ESC) visited the Oxford Chemical site in Atlanta, Georgia to collect a sample of the floating product and the aqueous phase in monitoring well MW-3. The floating product had an orange-brown color and a strong solvent-like odor. The aqueous phase was a milky color with similar odor.

Oxford Chemical previously used two products, HSB and PAA. The PAA was stored in an aboveground storage tank. According to facility personnel, around 1982 the facility began using PAMYL (amyl acetate) and ISOBUT (isobutyl acetate) instead of the PAA. These products were stored in drums. The two products were mixed together in various proportions to form a product similar to the original PAA. The material safety data (MSD) sheets for the original PAA, HSB, PAMYL, and ISOBUT are included as Enclosure 1. ESC collected samples of the HSB and a mixture of PAMYL and ISOBUT for laboratory analysis. The analytical results were to be compared to the results of samples obtained from MW-3.

The samples were shipped to Enseco East Laboratory for analysis. The aqueous phase sample was analyzed for base-neutral and acid extractable organic compounds plus 25 additional peaks (BNAs+25) (Method 8270), volatile organic compounds plus 15 additional peaks (VOCs+15) (Method 8240), total petroleum hydrocarbons (TPH), and fingerprint analysis using gas chromatograph (GC). The product phase was only analyzed for BNAs+25 due to the highly concentrated nature. The product samples (PAMYL/ISOBUT and HSB) were not analyzed for VOCs and BNAs due to the concentrated nature of the sample.

The results of the aqueous phase sample are given in Table 1. The only VOC detected was toluene at 7,800,000 ug/l. Several tentatively identified volatile compounds (TICs) were also detected in the sample including acetone, total xylenes, and 4-methyl-2-pentanone. The laboratory data package for all samples is included as Enclosure 2.

Seven BNA compounds were detected in the aqueous sample at concentrations between 1,500 ug/l and 27,000 ug/l. Most of the TICs detected during the BNA analysis consist of various hydrocarbons and amyl acetate (8 ug/l to 290 ug/l), and higher concentrations of 4-methylphenol and 2-methylnaphthalene (9,100 and 53,000 ug/l, estimated).

The GC fingerprint results for the product phase sample from well MW-3 indicate a mixture of at least two hydrocarbon components. The chromatogram shows an early eluting pattern of peaks (C8-C12) and a late eluting pattern of peaks (C12-C19). The late eluting pattern matches the fingerprint for the HSB sample. The earlier eluting pattern, however, resembles a mixture of the PAMYL/ISOBUT product sample and another hydrocarbon component. Typical hydrocarbons eluting in this range include kerosene, naphtha, and unleaded gasoline.

It is not possible to distinguish between the PAA product used before 1982 by Sara Lee and the products most recently used (PAMYL and ISOBUT) by Diversey-Oxford Chemical. They both contain various amounts of primary amyl acetate and isobutyl acetate. The fingerprint analysis indicates that the floating product in well MW-3 contains HSB, a hydrocarbon, and some PAMYL and ISOBUT, however, these products contain the same components as the original PAA product. A sample of the original PAA is not available for fingerprint analysis. Dissolved amyl acetate was detected in the aqueous sample at an estimated concentration of 63 ug/l. However, this level does not indicate if the material is PAA or mixture of PAMYL and ISOBUT.

The laboratory was not able to determine if the floating product resembled an aged HSB or a more recent form. The products degrade into too many compounds and age cannot be distinguished. The results of this portion of the investigation do not indicate whether the product is new or old. However, it is evident that the product contains some form of hydrocarbon. A review of hydrocarbon product use, particularly kerosene and unleaded gasoline, at the facility may provide further evidence of when a spill occurred.

ESC recommends that Diversey consider implementing the Phase II investigation proposed in our letter to you dated August 22, 1991. This phase would include the installation of soil borings in the three potential source areas and collection and analysis of soil samples to determine if contaminants are present in soils to indicate specific sources.

If you have any questions regarding these results, please call me at any time.

Sincerely yours,

James P. Bulman

James P. Bulman
Vice President of Technical Operations

JPB:lkb:has
#6541

Enclosures

Enclosure 1

MSD Sheets for PAA, PAMYL, ISOBUT, and HSB

AMYL ACETATE MIXTURE, PM 4283

		Specification Limits	Method
1	Specific gravity	0.865 to 0.869 at 20/20°C	P1B-70A16.1-1
2	Isobutyl acetate	53.0 to 57.0 per cent by weight	P1B-70A16.1-1
3	Primary amyl acetates and methyl amyl acetates	37.0 to 40.0 per cent by weight	P1B-70A16.1-1
4	Acidity	0.01 per cent by weight, maximum, calculated as acetic acid. This is equivalent to 0.093 mg KOH per gm sample.	
5	Water	0.25 per cent by weight, maximum	P1B-70A16.1-1
6	Color	15 platinum-cobalt, maximum	P1B-70A16.1-1
7	Suspended matter	Substantially free	P1B-70A16.1-1

RESEARCH AND DEVELOPMENT DEPARTMENT
TECHNICAL CENTER
South Charleston, West Virginia

pc

PAA

AMYL ACETATE MIXTURE, PM 4293

1 SPECIFIC GRAVITY

a) Determine at 20° C by means of a hydrometer calibrated to give the apparent specific gravity at 20/20° C and capable of being read to the nearest 0.0005 unit.

b) Maintain the constant temperature bath at 20 ± 0.05° C.

c) Reference 5-B2-4

2 ISOBUTYL ACETATE, PRIMARY AMYL ACETATES AND METHYL AMYL ACETATES

a) Analyze a portion of the sample gas chromatographically.

b) Instrument parameters

Instrument	F and M Model 500 Programmed Temperature Gas Chromatograph, or equivalent
Column	2-meter x 0.25-inch stainless steel tubing packed with 25 per cent by weight FLEXOL plasticizer 10-10 on 60/80 mesh Chromosorb W
Column temperature	125° C, isothermal
Carrier gas	helium
Flow	65 cc per minute
Detector current	150 ma
Injection port temperature	235° C
Block temperature	270° C
Sample volume	0.01 ml
Total elution time	20 minutes
Chart speed	1 inch per minute

c) Calibration Prepare a sample of the exact composition of PM 4293, which is:

Component	Weight %
Isobutyl acetate	60.00
Primary amyl acetate	20.00
Methyl amyl acetate	20.00

PAA

d) Determine the area per cent and calibration factor for each component in the mixture of known composition using the procedure described in 58E-V6-D, and the instrument parameters given in paragraph b.

e) Determine the concentration of each component in the sample. Report the analysis in terms of weight per cent, using the proper calibration factors.

f) Approximate retention times:

Isobutyl acetate	4.3 minutes
Primary amyl acetates as methyl amyl acetates	9.0 minutes

4 ACIDITY

a) Introduce 69 ml (60 gm) of the sample into a 250-ml Erlenmeyer flask by means of a suitable transfer graduate.

b) Add a few drops of a 1.0 per cent alcoholic solution of phenolphthalein indicator and titrate with standard 0.02 N alcoholic potassium hydroxide to a pink end point permanent for at least 15 seconds.

c) Calculation

ml KOH x 0.002 = acidity, % by weight, as acetic acid

4 WATER

a) Transfer 50 ml of anhydrous methanol to each of two dry 250-ml glass-stoppered Erlenmeyer flasks.

b) Titrate the contents of each flask with SO_2-I_2 reagent to the same light reddish brown color.

c) Reserve one of the flasks as the blank.

d) Into the second flask introduce 20 gm of the sample weighed to the nearest 0.1 gm.

e) Titrate immediately with the SO_2-I_2 reagent until the color matches that of the blank.

f) Calculation

$$\frac{A \times F}{\text{gm sample}} = \text{water, \% by weight}$$

A = ml of SO_2-I_2 required for the sample
F = factor, gm of water equivalent to 100 ml of reagent

g) Reference 31-29W1-1

5 COLOR

a) Transfer 100 ml of the sample to a tall-form Nessler tube.

b) Compare the color of the sample with those of a series of platinum-cobalt standards of equal volume in matched 100-ml Nessler tubes. View vertically down through the tubes against a white background.

c) Report the exact color of the sample in platinum-cobalt units.

d) Reference 5-J1-1

6 SUSPENDED MATTER

a) Invert a bottle of the sample and examine by transmitted light.

72-62-7820-01

ATHENA

Emergency Telephone 1 (800) 274-5233 or 1-800-ASHLAND

004462

ISOBUTYL ACETATE

Page: 1

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

****

Product Name: ISOBUTYL ACETATE
CAS NUMBER: 110-19-0

Data Sheet No: 0003754-001
Prepared: 03/04/86
Supersedes: 02/15/78

05 50 077 6803360-

OXFORD CHEMICALS
P O BOX 80202
ATLANTA GA 30366

PRODUCT: 3490000
INVOICE: 703644
INVOICE DATE: 11/14/89
TO: OXFORD CHEMICALS
5001 PEACHTREE INDUSTRIAL BLV
CHAMBLEE GA 30341

ATTN: PLANT MGR./SAFETY DIR.

SECTION I—PRODUCT IDENTIFICATION

General or Generic ID: ESTER

DOT Hazard Classification: FLAMMABLE LIQUID (173.115)

SECTION II—COMPONENTS

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION.
SEE DEFINITION PAGE FOR CLARIFICATION

INGREDIENT	% (by WT)	PEL	TLV	Note
ISOBUTYL ACETATE CAS #: 110-19-0	>95	150 PPM	150 PPM	(1)

Notes:

(1) ACGIH - SHORT TERM EXPOSURE LIMIT (STEL) FOR ISOBUTYL ACETATE IS 187 PPM.

SECTION III—PHYSICAL DATA

Boiling Point	for PRODUCT	244.00 Deg F (117.77 Deg C) @ 760.00 mm Hg
Vapor Pressure	for PRODUCT	18.00 mm Hg @ 68.00 Deg F (20.00 Deg C)
Specific Vapor Density	AIR = 1	4.0
Specific Gravity		.870 @ 68.00 Deg F (20.00 Deg C)
Percent Volatiles		100.00%
Evaporation Rate	(N BU AC = 1)	1.45

SECTION IV—FIRE AND EXPLOSION INFORMATION

FLASH POINT(TCC) 66.2 Deg F (19.0 Deg C)

EXPLOSIVE LIMIT (PRODUCT) LOWER - 2.2%

EXTINGUISHING MEDIA: REGULAR FOAM OR WATER FOG OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR MAY BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

SECTION V—HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 150 PPM

THRESHOLD LIMIT VALUE 150 PPM

EFFECTS OF ACUTE OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE MODERATE IRRITATION, REDNESS, TEARING.
SKIN - CAN CAUSE SLIGHT IRRITATION.
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE AND POSSIBLE UNCONSCIOUSNESS, AND EVEN DEATH.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA.

CONTINUED ON PAGE: 2

SECTION V. HEALTH HAZARD DATA (Continued)

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: IMMEDIATELY DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY EITHER GIVING IPECAC SYRUP OR BY PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION, SKIN CONTACT

SECTION VI. REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LARGE SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII. PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION II), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, POLYVINYL CHLORIDE

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX. SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED.SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

 LAST PAGE--SEE ATTACHMENT PAGE

MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: NOVEMBER 1, 1985

Union Carbide Corporation urges the customer receiving this Material Safety Data Sheet to study it carefully to become aware of hazards, if any, of the product involved. In the interest of safety you should (1) notify your employees, agents, and contractors of the information on this sheet, (2) furnish a copy to each of your customers for the product, and (3) request your customers to inform their employees and customers as well.

I. IDENTIFICATION

PRODUCT NAME:	PRIMARY AMYL ACETATE, MIXED ISOMERS		
CHEMICAL NAME:	Primary Amyl Acetate	CHEMICAL FAMILY:	Esters
FORMULA:	$CH_3COOC_5H_{11}$ (mixed isomers)	MOLECULAR WEIGHT:	130.19
DEPARTMENT OF TRANSPORTATION	Hazard Classification Shipping Name	Combustible Liquid Solvent, NOS	
CAS # --	CAS NAME	Not available (mixture)	

II. PHYSICAL DATA

BOILING POINT, 760 mm Hg	146°C (294.8°F)	FREEZING POINT	Set to glass below -100°C
SPECIFIC GRAVITY (H_2O = 1)	0.8757 at 20/20°C	VAPOR PRESSURE at 20°C	4 mm Hg
VAPOR DENSITY (air = 1)	4.5	SOLUBILITY IN WATER, % by wt.	0.2 at 20°C
PERCENT VOLATILES BY VOLUME	100	EVAPORATION RATE (Butyl Acetate = 1)	0.42
APPEARANCE AND ODOR	Water-white liquid; mild, characteristic odor		

III. INGREDIENTS

MATERIAL	%	TLV	HAZARD
Primary Amyl Acetate (CAS # 628-63-7)	~60	100 ppm	Combustible, Irritant
2-Methyl Butyl Acetate	~35	None established	Combustible, Irritant
3-Methyl Butyl Acetate	~5	None established	Combustible, Irritant

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	101°F, Tag Closed Cup; 106°F, Tag Open Cup			
FLAMMABLE LIMITS IN AIR, % by volume	LOWER	1.1	UPPER	7.5
EXTINGUISHING MEDIA	Use water spray, carbon dioxide, dry chemical, alcohol-type, or universal-type foams applied by manufacturers' recommended techniques.			
SPECIAL FIRE FIGHTING PROCEDURES	Use self-contained breathing apparatus and protective clothing.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

V. HEALTH HAZARD DATA

AND SOURCE:

see Section III. Values from ACGIH 1985-86 and OSHA CRF 29, para. 1910.1000, Table Z-1.

EFFECTS OF ACUTE OVEREXPOSURE

SWALLOWING	May cause nausea, vomiting, and diarrhea.
SKIN ABSORPTION	No evidence of adverse effects from available information.
INHALATION	Vapors may be irritating and cause dizziness, headache, nausea, vomiting, and narcosis.
SKIN CONTACT	Brief contact should not produce any harmful effects, but prolonged contact, as from clothing wet with the chemical, may cause irritation.
EYE CONTACT	Causes irritation.

EFFECTS OF REPEATED OVEREXPOSURE

No evidence of adverse effects from available information.

OTHER HEALTH HAZARDS

None currently known.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING	Give two glasses of water and induce vomiting.
SKIN	Remove contaminated clothing and flush skin with water.
INHALATION	Remove to fresh air. Call a physician. Give artificial respiration if not breathing. Give oxygen if breathing is difficult.
EYES	Flush with plenty of water. Call a physician if discomfort persists.

NOTES TO PHYSICIAN

Treatment should be directed at the control of symptoms and the clinical condition. There is no specific antidote.

VI. REACTIVITY DATA

STABILITY			
UNSTABLE	STABLE	CONDITIONS TO AVOID	None
	X		

INCOMPATIBILITY (materials to avoid)	Alkali metal hydroxides, such as sodium hydroxide; strong oxidizing agents, such as concentrated nitric acids.
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS	Burning can produce carbon dioxide and/or carbon monoxide.

HAZARDOUS POLYMERIZATION			
May Occur	Will Not Occur	CONDITIONS TO AVOID	None
	X		

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Wear suitable protective equipment. Collect for disposal. Avoid discharge to sewers or waterways. See Section IX.
WASTE DISPOSAL METHOD	Incinerate in a furnace where permitted under appropriate Federal, State, and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION	Self-contained breathing apparatus in high concentrations.
VENTILATION	This product should be confined within covered equipment, in which case general (mechanical) room ventilation is expected to be satisfactory. Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

PROTECTIVE GLOVES	Rubber	EYE PROTECTION	Monogoggles
OTHER PROTECTIVE EQUIPMENT	Eye bath and safety shower		

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid breathing vapor. Keep away from heat, sparks, and flame. Avoid contact with eyes, skin, and clothing. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

FOR INDUSTRY USE ONLY

OTHER PRECAUTIONS
This product has a fairly low solubility in water; if the solubility limit is exceeded (as in a large spill), it would float on the surface presenting a fire hazard. Also, it is highly toxic to aquatic life. Avoid discharge to sewers or waterways.

MATERIAL SAFETY
DATA SHEET

PANASOL AN-3N

MANUFACTURER:
Amoco Chemicals Company
200 East Randolph Drive
Chicago, Illinois 60601

EMERGENCY HEALTH INFORMATION: (312) 856-5371
EMERGENCY SPILL INFORMATION: (800) 424-9300
OTHER PRODUCT SAFETY INFORMATION: (312) 856-3304

IMPORTANT COMPONENTS: Catalytic reformer petroleum distillate (CAS 68477-31-6).

WARNING STATEMENT: Warning! Combustible. Can cause skin irritation. Harmful if swallowed and/or aspirated into the lungs.

APPEARANCE AND ODOR: Clear yellow liquid; aromatic odor.

HEALTH HAZARD INFORMATION

EYE

EFFECT: No significant irritation expected.

FIRST AID: Flush eyes with plenty of water.

PROTECTION: None required; however, use of safety glasses is good industrial practice.

SKIN

EFFECT: Can cause skin irritation. See Toxicology Section.

FIRST AID: Wash exposed skin with soap and water. Remove contaminated clothing and thoroughly clean and dry before reuse.

PROTECTION: Avoid skin contact. Wear protective clothing and gloves.

INHALATION

EFFECT: None expected under normal conditions of use. See Toxicology Section.

FIRST AID: If adverse effects occur, remove to uncontaminated area. Get medical attention.

PROTECTION: Avoid prolonged or repeated inhalation. Use with adequate ventilation. If ventilation is inadequate, use NIOSH/MSHA certified respirator which will protect against organic vapor/mist.

INGESTION

EFFECT: Harmful if swallowed and/or aspirated into lungs.

FIRST AID: If swallowed, do NOT induce vomiting. Get immediate medical attention.

FIRE AND EXPLOSION INFORMATION

FLASHPOINT: 199°F, (92°C) ASTM D56

EXTINGUISHING MEDIA: Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, halogenated agents, foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustible liquid.

PRECAUTIONS: Keep away from ignition sources (e.g., heat and open flames). Keep container closed.

REACTIVITY INFORMATION

DANGEROUS REACTIONS: None identified.

HAZARDOUS DECOMPOSITION: None. Polymerization will not occur. Incomplete burning can produce carbon monoxide, carbon dioxide, and other harmful products.

STABILITY: Stable.

CHEMICAL AND PHYSICAL PROPERTIES

BOILING POINT: 410°F TO 550°F, (210°C-288°C).

SOLUBILITY IN WATER: Negligible, below 0.1%

SPECIFIC GRAVITY (WATER = 1): 1

STORAGE AND ENVIRONMENTAL PROTECTION

STORAGE REQUIREMENTS: Store in combustible liquids storage area. Store away from heat, ignition sources, and open flame in accordance with applicable federal, state, or local regulations. Keep container closed.

SPILLS AND LEAKS: Remove or shut off all sources of ignition. Remove mechanically or contain on an absorbent material. Keep out of sewers and waterways.

WASTE DISPOSAL: Disposal must be in accordance with applicable federal, state, or local regulations. Determine waste classification at time of disposal. Conditions of use may render the spent product a hazardous waste. Enclosed-controlled incineration is recommended unless directed otherwise by applicable ordinances.

EMPTY CONTAINERS: The container for this product can present explosion or fire hazards, even when emptied! To avoid risk of injury, do not cut, puncture or weld on or near this container. Since the emptied containers retain product residue, follow label warnings even after container is emptied.

TOXICOLOGICAL INFORMATION

EYE: Irritation score: 7.0/110.0 (rabbit).

SKIN: Average irritation score 4.65/8.0, ranging from 0.0 to 7.0/8.0. Acute dermal LD50 greater than 2000 mg/kg (rabbit).

INHALATION: Acute one-hour LC50 in rats greater than 1.67 mg/l (no death).

INGESTION: Acute oral LD50: 2,622 mg/kg (rat).

Panasol AN-3N is a catalytic reformer petroleum distillate. No death occurred in rats exposed to distillate vapors at maximum attainable concentration under the experimental conditions (1.67 mg/l) for one hour. Signs of toxicity consisted of red nasal and lacrimal discharge, salivation, diarrhea and dark red lung foci. Rats exposed to the distillate vapors at concentrations as high as 500 mg/m3 for 21 days or 100 mg/m3 for 90 days showed increased relative liver weight at the 500 mg/m3 level.

The distillate was practically non-toxic in rabbits via single dermal contact and only slightly toxic via single ingestion in rats. In a 21-day rat oral toxicity study at dose levels from 90 to 3000 mg/kg, deaths in excess from control occurred at the 3000 mg/kg level (90% death). At the 1230 mg/kg level, liver weights were increased, and spleen weights were decreased. Severe stomach irritation and congestion of the adrenals appeared to be treatment related. In a 90-day study, the distillate was applied dermally to rats and mice at doses ranging from 170 to 4500 mg/kg. Depression of the growth rates and deaths occurred at both the 1500 and 4500 mg/kg dose levels in both species. Dose-related irritation at the application site was observed. In the mice, the incidence of myocardial lesions was slightly higher in the 4.5 g/kg group than in the vehicle control group.

Panasol AN-3N produced a weak carcinogenic response in mice following repeated application of high levels for life. The finding was reported to EPA under Section 8(e) of TSCA. Age-related myocardial lesions were seen with a higher incidence and/or severity in the treated mice than in the controls.

The dose levels and duration of exposure that induced tumors by dermal applications in the animal studies are very high and do not reflect anticipated human exposure. It is our opinion that Panasol AN-3N does not present a human health risk if the personal and industrial hygiene practices recommended in this material safety data sheet are followed.

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: Combustible liquid.

DOT PROPER SHIPPING NAME (BULK, LAND): Combustible liquid, N.O.S. (contains naphthalene), NA1993, RQ.

ISSUE INFORMATION

BY: Stephen A. Elbert

Stephen A. Elbert
Mgr., Product Safety & Toxicology

ISSUED: July 15, 1985
SUPERSEDES: February 28, 1985

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.

Enclosure 2

Laboratory Data Package

Enseco

SEP 26 1991

Summary Result Package
for Encironmental Strategies Corp.
Enseco-East Project No. 015846

2200 Cottontail Lane
Somerset, New Jersey 08873
201/469-5800 Fax: 201/469-7516

Table of Contents

SAMPLE DESCRIPTION INFORMATION
for
Environmental Strategies Corp.

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
015846-0001-SA	MW-3 (UPPER PHASE)	LIQUID	21 AUG 91	09:40	22 AUG 91
015846-0001-DU	MW-3 (AQUEOUS PHASE)	AQUEOUS	21 AUG 91	09:40	22 AUG 91
015846-0002-SA	PAAMIX	LIQUID	21 AUG 91	10:35	22 AUG 91
015846-0003-SA	HSB	LIQUID	21 AUG 91	10:25	22 AUG 91
015846-0004-TB	TB	LIQUID	21 AUG 91		22 AUG 91

Method 8240

Client Name: Environmental Strategies Corp.
Client ID: MW-3 (AQUEOUS PHASE)
Lab ID: 015846-0001-DU
Matrix: AQUEOUS Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: NA Analyzed: 12 SEP 91

Parameter	Result	Units	Reporting Limit	
Chloromethane	ND	ug/L	1000000	j
Bromomethane	ND	ug/L	1000000	
Vinyl chloride	ND	ug/L	1000000	
Chloroethane	ND	ug/L	1000000	
Methylene chloride	ND	ug/L	500000	
1,1-Dichloroethene	ND	ug/L	500000	
1,1-Dichloroethane	ND	ug/L	500000	
1,2-Dichloroethene (cis/trans)	ND	ug/L	500000	
Chloroform	ND	ug/L	500000	
1,2-Dichloroethane	ND	ug/L	500000	
1,1,1-Trichloroethane	ND	ug/L	500000	
Carbon tetrachloride	ND	ug/L	500000	
Bromodichloromethane	ND	ug/L	500000	
1,2-Dichloropropane	ND	ug/L	500000	
trans-1,3-Dichloropropene	ND	ug/L	500000	
Trichloroethene	ND	ug/L	500000	
Dibromochloromethane	ND	ug/L	500000	
1,1,2-Trichloroethane	ND	ug/L	500000	
Benzene	ND	ug/L	500000	
cis-1,3-Dichloropropene	ND	ug/L	500000	
2-Chloroethyl vinyl ether	ND	ug/L	1000000	
Bromoform	ND	ug/L	500000	
1,1,2,2-Tetrachloroethane	ND	ug/L	500000	
Tetrachloroethene	ND	ug/L	500000	
Toluene	7800000	ug/L	500000	
Chlorobenzene	ND	ug/L	500000	
Ethylbenzene	ND	ug/L	500000	

Surrogate	Recovery		
4-Bromofluorobenzene	101	%	--
Toluene-d8	101	%	--
1,2-Dichloroethane-d4	96	%	--

Note j : All reporting limits raised due to high levels of other analytes.

ND = Not detected
NA = Not applicable

Reported By: David Ercoliani Approved By: Khaja Eazazuddin

Volatiles Library Search (15 Compound TIC)

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Method 8240

Client Name: Environmental Strategies Corp.
Client ID: MW-3 (AQUEOUS PHASE)
Lab ID: 015846-0001-DU
Matrix: AQUEOUS Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: NA Analyzed: 12 SEP 91

Parameter	Result	Units	Reporting Limit	
Acetone	340000	ug/L		J
4-Methyl-2-pentanone	2400000	ug/L		J
Xylenes (total)	990000	ug/L		J
1,4-Dichlorobenzene	240000	ug/L		J
1,2-Dichlorobenzene	1700000	ug/L		J
Unknown	3700000	ug/L		J
Hydrocarbon	4100000	ug/L		J
Chlorotoluene	57000000	ug/L		J
C-3 Benzene	2000000	ug/L		J
C-10 H-16 Isomer	7800000	ug/L		J
Hydrocarbon	5000000	ug/L		J
Unknown	1900000	ug/L		J
Hydrocarbon	2800000	ug/L		J
Trichlorobenzene Isomer	3000000	ug/L		J
C-10 H-8 Isomer	1800000	ug/L		J

Note J : Result is detected below the reporting limit or is an estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: David Ercoliani Approved By: Khaja Eazazuddin

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QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
015846-0001-DU	AQUEOUS	624-A	10 SEP 91-G	12 SEP 91-A

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limits
Category: 624-A Matrix: AQUEOUS QC Lot: 10 SEP 91-G Concentration Units: ug/L								
1,1-Dichloroethene	50	48.9	48.0	48.4	97	61-145	1.9	14
Trichloroethene	50	51.8	50.1	51.0	102	71-120	3.3	14
Benzene	50	56.0	54.0	55.0	110	76-127	3.6	11
Toluene	50	53.4	53.2	53.3	107	76-125	0.4	13
Chlorobenzene	50	52.0	53.4	52.7	105	75-130	2.7	13

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

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: 624-A				
Matrix: AQUEOUS				
QC Lot: 10 SEP 91-G QC Run: 12 SEP 91-A				
Concentration Units: ug/L				
1,2-Dichloroethane-d4	50.0	47.9	96	70-121
4-Bromofluorobenzene	50.0	48.3	97	86-115
Toluene-d8	50.0	48.9	98	88-110

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

METHOD BLANK REPORT
Volatile Organics by GC/MS

Test: 8240-PP-TIERII-A
Matrix: AQUEOUS
QC Lot: 10 SEP 91-G QC Run: 12 SEP 91-A

Analyte	Result	Units	Reporting Limit
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethene (cis/trans)	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
2-Chloroethyl vinyl ether	ND	ug/L	10
Bromoform	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0

Method Blank Summary
Tentatively Identified Compounds

Matrix: WATER

QC LOT 10SEP91-G

QC RUN 10SEP91-A

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

Valid Component or CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				

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Method Blank Summary
Tentatively Identified Compounds

Matrix: Water

QC LOT 10SEP91-C

QC RUN 12SEP91-A

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

Valid Component or CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	=====
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				

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Method 8270

Client Name: Environmental Strategies Corp.
Client ID: MW-3 (AQUEOUS PHASE)
Lab ID: 015846-0001-DU
Matrix: AQUEOUS Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: 04 SEP 91 Analyzed: 11 SEP 91

Parameter	Result	Units	Reporting Limit	
Phenol	10000	ug/L	10000	j
bis(2-Chloroethyl) ether	ND	ug/L	10000	
2-Chlorophenol	ND	ug/L	10000	
1,3-Dichlorobenzene	ND	ug/L	10000	
1,4-Dichlorobenzene	2100	ug/L	10000	J
1,2-Dichlorobenzene	17000	ug/L	10000	
bis(2-Chloroisopropyl) ether	ND	ug/L	10000	
N-Nitroso-di-n-propylamine	ND	ug/L	10000	
Hexachloroethane	ND	ug/L	10000	
Nitrobenzene	ND	ug/L	10000	
Isophorone	ND	ug/L	10000	
2-Nitrophenol	ND	ug/L	10000	
2,4-Dimethylphenol	ND	ug/L	10000	
bis(2-Chloroethoxy)-methane	ND	ug/L	10000	
2,4-Dichlorophenol	ND	ug/L	10000	
1,2,4-Trichlorobenzene	21000	ug/L	10000	
Naphthalene	27000	ug/L	10000	
Hexachlorobutadiene	ND	ug/L	10000	
4-Chloro-3-methylphenol	ND	ug/L	10000	
Hexachlorocyclopentadiene	ND	ug/L	10000	
2,4,6-Trichlorophenol	ND	ug/L	10000	
2-Chloronaphthalene	ND	ug/L	10000	
Dimethyl phthalate	ND	ug/L	10000	
Acenaphthylene	ND	ug/L	10000	
Acenaphthene	1500	ug/L	10000	J
2,4-Dinitrophenol	ND	ug/L	51000	
4-Nitrophenol	ND	ug/L	51000	
2,4-Dinitrotoluene	ND	ug/L	10000	
2,6-Dinitrotoluene	ND	ug/L	10000	
Diethyl phthalate	ND	ug/L	10000	
4-Chlorophenyl phenyl ether	ND	ug/L	10000	
Fluorene	ND	ug/L	10000	
4,6-Dinitro-2-methylphenol	ND	ug/L	51000	
N-Nitrosodiphenylamine	ND	ug/L	10000	
4-Bromophenyl phenyl ether	ND	ug/L	10000	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Steve Bucher Approved By: Alicia Duran-Capece

Method 8270

Client Name: Environmental Strategies Corp.
Client ID: MW-3 (AQUEOUS PHASE)
Lab ID: 015846-0001-DU
Matrix: AQUEOUS Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: 04 SEP 91 Analyzed: 11 SEP 91

Parameter	Result	Units	Reporting Limit	
Hexachlorobenzene *	ND	ug/L	10000	
Pentachlorophenol	ND	ug/L	51000	
Phenanthrene	ND	ug/L	10000	
Anthracene	ND	ug/L	10000	
Di-n-butyl phthalate	ND	ug/L	10000	
Fluoranthene	ND	ug/L	10000	
Pyrene	ND	ug/L	10000	
Butyl benzyl phthalate	ND	ug/L	10000	
3,3'-Dichlorobenzidine	ND	ug/L	20000	
Benzo(a)anthracene	ND	ug/L	10000	
bis(2-Ethylhexyl) phthalate	1500	ug/L	10000	J
Chrysene	ND	ug/L	10000	
Di-n-octyl phthalate	ND	ug/L	10000	
Benzo(b)fluoranthene	ND	ug/L	10000	
Benzo(k)fluoranthene	ND	ug/L	10000	
Benzo(a)pyrene	ND	ug/L	10000	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10000	
Dibenz(a,h)anthracene	ND	ug/L	10000	
Benzo(g,h,i)perylene	ND	ug/L	10000	
Surrogate	**Recovery**			
Nitrobenzene-d5	ND	%	--	H
2-Fluorobiphenyl	ND	%	--	H
Terphenyl-d14	ND	%	--	H
Phenol-d5	ND	%	--	H
2-Fluorophenol	ND	%	--	H
2,4,6-Tribromophenol	ND	%	--	H

Note j : All reporting limits raised due to high levels of other analytes.

Note J : Result is detected below the reporting limit or is an estimated concentration.

Note H : Surrogate not detected because of required sample dilution.

ND = Not detected
NA = Not applicable

Reported By: Steve Bucher Approved By: Alicia Duran-Capece

Method 8270

Client Name: Environmental Strategies Corp.
Client ID: MW-3 (AQUEOUS PHASE)
Lab ID: 015846-0001-DU
Matrix: AQUEOUS Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: NA Analyzed: 11 SEP 91

Parameter	Result	Units	Reporting Limit	
Unknown	44	ug/L		J
Hydrocarbon	24	ug/L		J
Amyl Acetate	63	ug/L		J
C-7 H-7 Cl Isomer	290	ug/L		J
C-7 H-7 Cl Isomer	31	ug/L		J
C-3 Benzene	25	ug/L		J
C-3 Benzene	20	ug/L		J
Hydrocarbon	22	ug/L		J
C-3 Benzene	9.0	ug/L		J
Hydrocarbon	19	ug/L		J
C-4 Benzene	13	ug/L		J
Hydrocarbon	14	ug/L		J
Hydrocarbon	8.0	ug/L		J
Unknown	8.0	ug/L		
Methyl Naphthalene Isomer	27	ug/L		J
Hydrocarbon	8.0	ug/L		J
Hydrocarbon	9.0	ug/L		J
Hydrocarbon	25	ug/L		J
Unknown	17	ug/L		J
Dimethyl Naphthalene Isomer	32	ug/L		J
Dimethyl Naphthalene Isomer	20	ug/L		J
Dimethyl Naphthalene Isomer	15	ug/L		J
Hydrocarbon	10	ug/L		J
4-Methylphenol	9100	ug/L		J
2-Methylnaphthalene	53000	ug/L		J

Note J : Result is detected below the reporting limit or is an estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Steve Bucher Approved By: Alicia Duran-Capece

MATRIX SPECIFIC QC
ASSIGNMENT REPORT
Semivolatile Organics by GC/MS

QC SAMPLE TYPE	TEST	LABORATORY SAMPLE NUMBER	QC LOT
MATRIX DUPLICATE	8270-PP-TIERII-A	015846-0001-DU	03 SEP 91-A
MATRIX DUPLICATE	8270-TID25-A	015846-0001-DU	-

Enseco

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
015846-0001-DU	AQUEOUS	625-A	03 SEP 91-A	04 SEP 91-A

DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limits
Category: 625-A								
Matrix: AQUEOUS								
QC Lot: 03 SEP 91-A								
Concentration Units: ug/L								
Phenol	200	59.4	54.3	56.8	28	12- 89	9.0	42
2-Chlorophenol	200	115	105	110	55	27-123	9.1	40
1,4-Dichlorobenzene	100	63.2	56.5	59.8	60	36- 97	11	28
N-Nitroso-di-n-propylamine	100	64.1	63.0	63.6	64	41-116	1.7	38
1,2,4-Trichlorobenzene	100	63.6	59.7	61.6	62	39- 98	6.3	28
4-Chloro-3-methylphenol	200	124	123	124	62	23- 97	0.8	42
Acenaphthene	100	62.4	63.1	62.8	63	46-118	1.1	31
4-Nitrophenol	200	54.0	60.4	57.2	29	10- 80	11	50
2,4-Dinitrotoluene	100	51.6	55.0	53.3	53	24- 96	6.4	38
Pentachlorophenol	200	152	167	160	80	9-103	9.4	50
Pyrene	100	51.7	52.8	52.2	52	26-127	2.1	31

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

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
Category: 625-A				
Matrix: AQUEOUS				
QC Lot: 03 SEP 91-A QC Run: 04 SEP 91-A				
Concentration Units: ug/L				
Nitrobenzene-d5	100	110	110	36-114
2-Fluorobiphenyl	100	106	106	43-116
Terphenyl-d14	100	101	101	33-141
2-Fluorophenol	200	151	76	21-100
Phenol-d5	200	82.8	41	10- 94
2,4,6-Tribromophenol	200	246	123	10-123

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

METHOD BLANK REPORT
Semivolatile Organics by GC/MS

Test: 8270-PP-TIERII-A
Matrix: AQUEOUS
QC Lot: 03 SEP 91-A QC Run: 04 SEP 91-A

Analyte	Result	Units	Reporting Limit
Phenol	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
bis(2-Chloroisopropyl) ether	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
Hexachloroethane	ND	ug/L	10
Nitrobenzene	ND	ug/L	10
Isophorone	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
bis(2-Chloroethoxy)-methane	ND	ug/L	10
2,4-Dichlorophenol	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
Naphthalene	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
2,4,6-Trichlorophenol	ND	ug/L	10
2-Chloronaphthalene	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Acenaphthene	ND	ug/L	10
2,4-Dinitrophenol	ND	ug/L	50
4-Nitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10
4-Chlorophenyl phenyl ether	ND	ug/L	10
Fluorene	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
N-Nitrosodiphenylamine	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Test: 8270-PP-TIERII-A
Matrix: AQUEOUS
QC Lot: 03 SEP 91-A QC Run: 04 SEP 91-A

Analyte	Result	Units	Reporting Limit
Hexachlorobenzene	ND	ug/L	10
Pentachlorophenol	ND	ug/L	50
Phenanthrene	ND	ug/L	10
Anthracene	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
Fluoranthene	ND	ug/L	10
Pyrene	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
Benzo(a)anthracene	ND	ug/L	10
bis(2-Ethylhexyl) phthalate	ND	ug/L	10
Chrysene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10

Method Blank Summary
Tentatively Identified Compounds

Matrix: Water

QC LOT 03Sep91-A

QC RUN 04Sep91-A

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

Valid Component or CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				

7/91
avd

avd0001

Enseco

Modified ASTM Method D3328

Client Name: Environmental Strategies Corp.
Client ID: MW-3 (UPPER PHASE)
Lab ID: 015846-0001-SA
Matrix: LIQUID Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: 26 AUG 91 Analyzed: 26 AUG 91

Parameter	Result	Units	Reporting Limit	
Total Petroleum Hydrocarbons	530000	mg/kg	See Below	1
Individual Hydrocarbon	NA	mg/kg	250	
Total Product	NA	mg/kg	5000	

Note 1 : QUANTITATIVE IDENTIFICATION: The GC/FID characteristics of the sample suggest a mixture of hydrocarbons eluting from C8-C19. The earlier eluting pattern resembles kerosene from C8-C12 . The chromatographic pattern from C12-C19 matches the standard 15846-03. The product falls outside of the range used to determine relative weathering.

ND = Not detected
NA = Not applicable

Reported By: Shanthi Damarapu Approved By: Dan Segal

HYDROCARBON FINGERPRINTING

Enseco

Modified ASTM Method D3328

Client Name: Environmental Strategies Corp.
Client ID: MW-3 (AQUEOUS PHASE)
Lab ID: 015846-0001-DU
Matrix: AQUEOUS Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: 28 AUG 91 Analyzed: 10 AUG 91

Parameter	Result	Units	Reporting Limit	
Total Petroleum Hydrocarbons	530000	mg/L	See Below	1
Individual Hydrocarbon	NA	mg/L	1.0	
Total Product	NA	mg/L	50	
Surrogate	Recovery			
o-Terphenyl	NA	%	--	

Note 1 : QUANTITATIVE IDENTIFICATION: The GC/FID characteristics of the sample suggest a mixture of hydrocarbons eluting from C8-C21. The earlier eluting pattern C8-C12 does not match the available library of standards. Products typically found in this range include kerosene. The chromatographic pattern from C12-C19 matches the standard 15846-03. The product falls outside of the range used to determine relative weathering.

ND = Not detected
NA = Not applicable

Reported By: Shanthi Damarapu Approved By: Martha Sullivan

HYDROCARBON FINGERPRINTING

Enseco

Modified ASTM Method D3328

Client Name: Environmental Strategies Corp.
Client ID: PAAMIX
Lab ID: 015846-0002-SA
Matrix: LIQUID Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: 26 AUG 91 Analyzed: 29 AUG 91

Parameter	Result	Units	Reporting Limit	
Total Petroleum Hydrocarbons	NA	mg/kg	See Below	1
Individual Hydrocarbon	NA	mg/kg	5.0	
Total Product	NA	mg/kg	100	

Note 1 : Reference material used for sample characterization.

ND = Not detected
NA = Not applicable

Reported By: Shanthi Damarapu Approved By: Dan Segal

HYDROCARBON FINGERPRINTING

Enseco

Modified ASTM Method D3328

Client Name: Environmental Strategies Corp.
Client ID: HSB
Lab ID: 015846-0003-SA
Matrix: LIQUID Sampled: 21 AUG 91 Received: 22 AUG 91
Authorized: 22 AUG 91 Prepared: 26 AUG 91 Analyzed: 29 AUG 91

Parameter	Result	Units	Reporting Limit	
Total Petroleum Hydrocarbons	NA	mg/kg	See Below	1
Individual Hydrocarbon	NA	mg/kg	5.0	
Total Product	NA	mg/kg	100	

Note 1 : Reference material used for sample characterization.

ND = Not detected
NA = Not applicable

Reported By: Shanthi Damarapu Approved By: Dan Segal

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
015846-0001-SA	WASTE	FING-W	26 AUG 91-A	26 AUG 91-A
015846-0001-DU	AQUEOUS	FING-A	26 AUG 91-A	28 AUG 91-A
015846-0002-SA	WASTE	FING-W	26 AUG 91-A	28 AUG 91-A
015846-0003-SA	WASTE	FING-W	26 AUG 91-A	28 AUG 91-A

Enseco

DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limits
Category: FING-W Matrix: WASTE QC Lot: 26 AUG 91-A Concentration Units: ug/g								
Fuel Oil #2	1000	767	762	764	76	50-150	0.6	50
Category: FING-A Matrix: AQUEOUS QC Lot: 26 AUG 91-A Concentration Units: mg/L								
Fuel Oil #2	1000	767	762	764	76	19- 81	0.6	24

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

Enseco
A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: FING-TIERII-W			
Matrix: LIQUID			
QC Lot: 26 AUG 91-A QC Run: 26 AUG 91-A			
Total Petroleum Hydrocarbons	ND	mg/kg	See Below
Individual Hydrocarbon	ND	mg/kg	5.0
Total Product	ND	mg/kg	100
Test: FING-TIERII-A			
Matrix: AQUEOUS			
QC Lot: 26 AUG 91-A QC Run: 28 AUG 91-A			
Total Petroleum Hydrocarbons	ND	mg/L	See Below
Individual Hydrocarbon	ND	mg/L	0.010
Total Product	ND	mg/L	0.50
Test: FING-TIERII-W			
Matrix: LIQUID			
QC Lot: 26 AUG 91-A QC Run: 28 AUG 91-A			
Total Petroleum Hydrocarbons	ND	mg/kg	See Below
Individual Hydrocarbon	ND	mg/kg	5.0
Total Product	ND	mg/kg	100

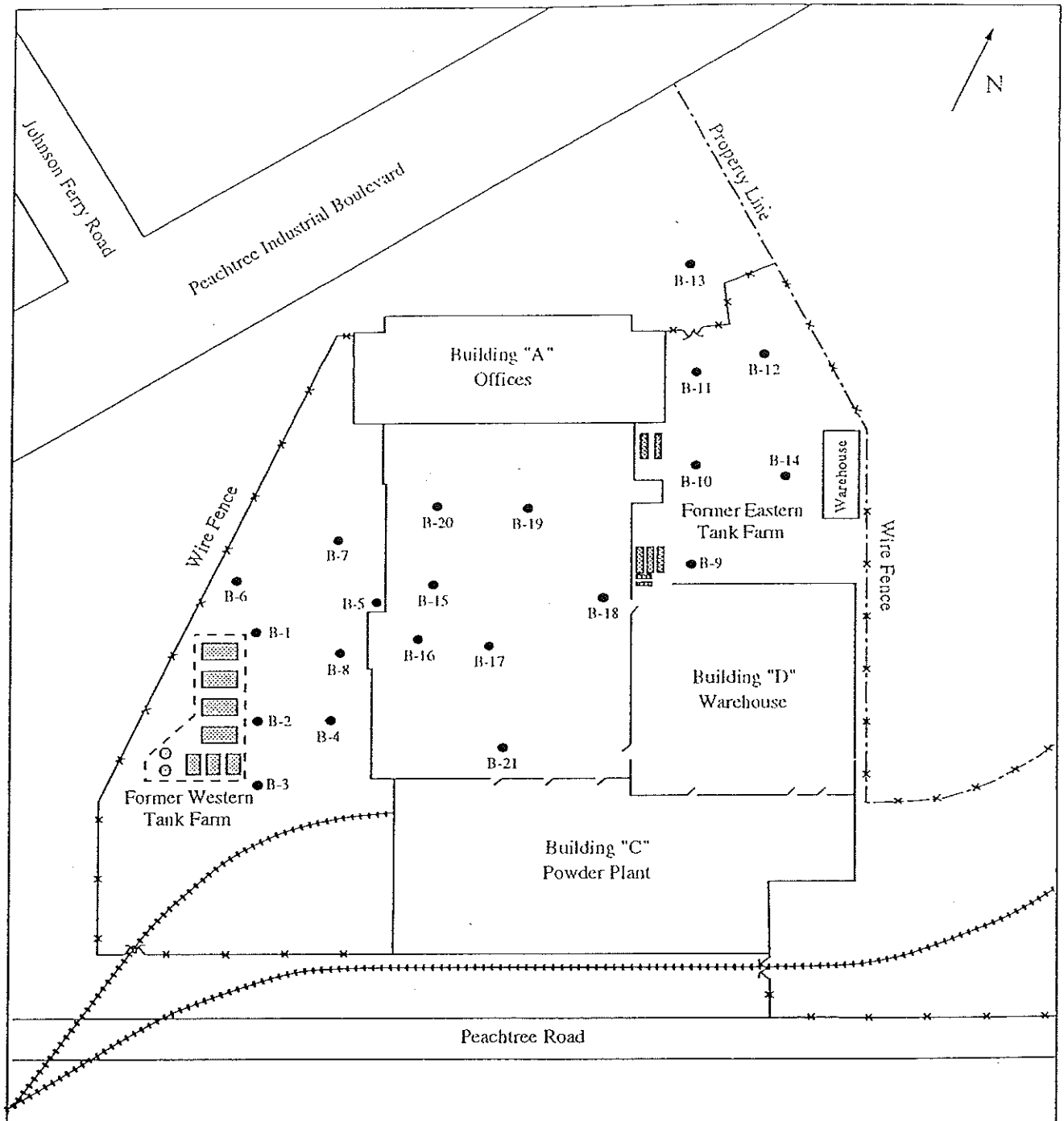
SUPPLEMENTAL SOIL AND GROUNDWATER INVESTIGATION AT THE FORMER OXFORD CHEMICAL INC. CHAMBLEE, GEORGIA

PREPARED

BY

ENVIRONMENTAL STRATEGIES CORPORATION

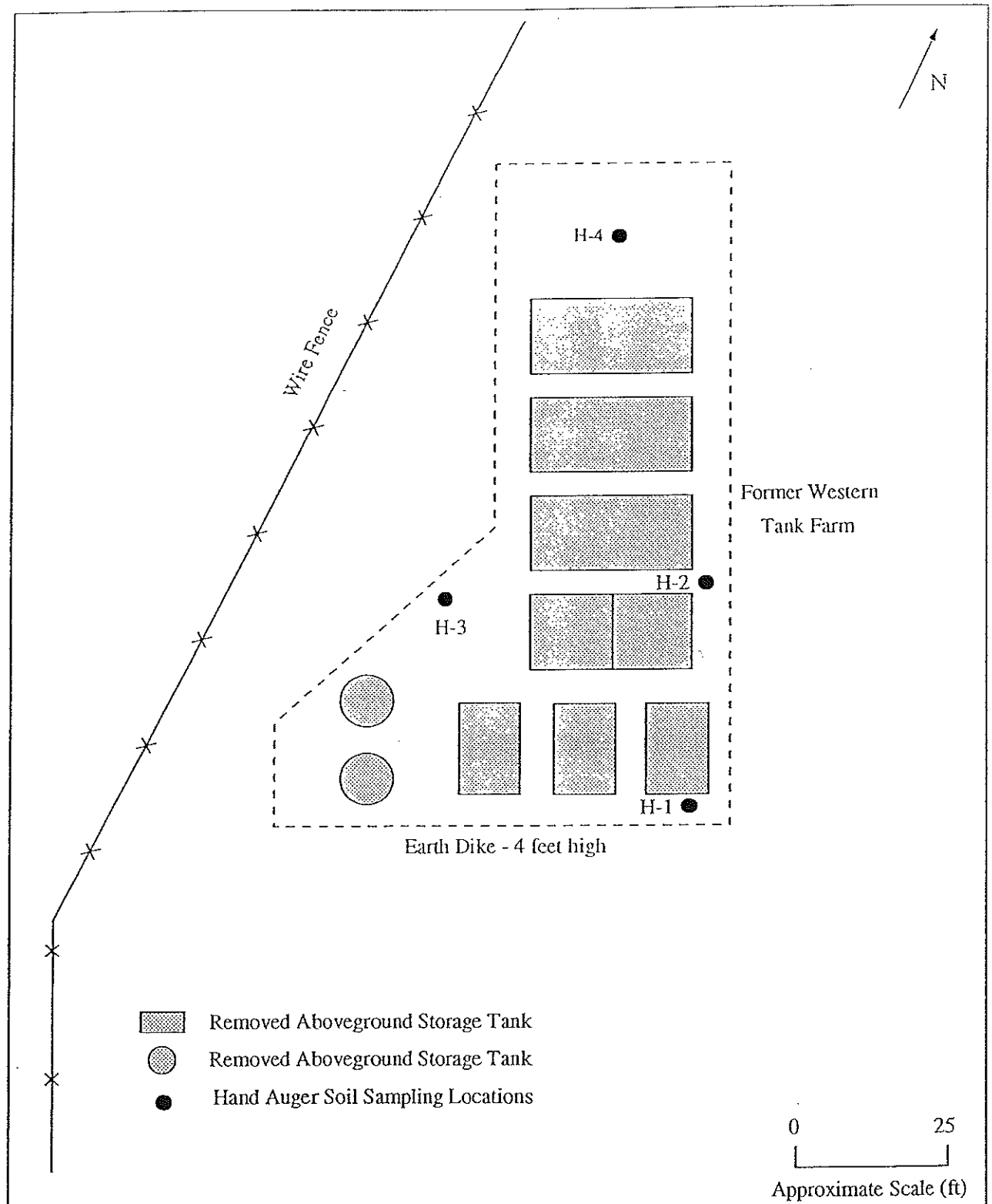
JULY 27, 1993



ENVIRONMENTAL STRATEGIES CORP.
11911 Freedom Drive Suite 900
Reston, Virginia 22090
703-709-6500

Figure 4
Soil Boring Locations
Former Oxford Chemical Facility
Chamblee, Georgia, May 10-12, 1993

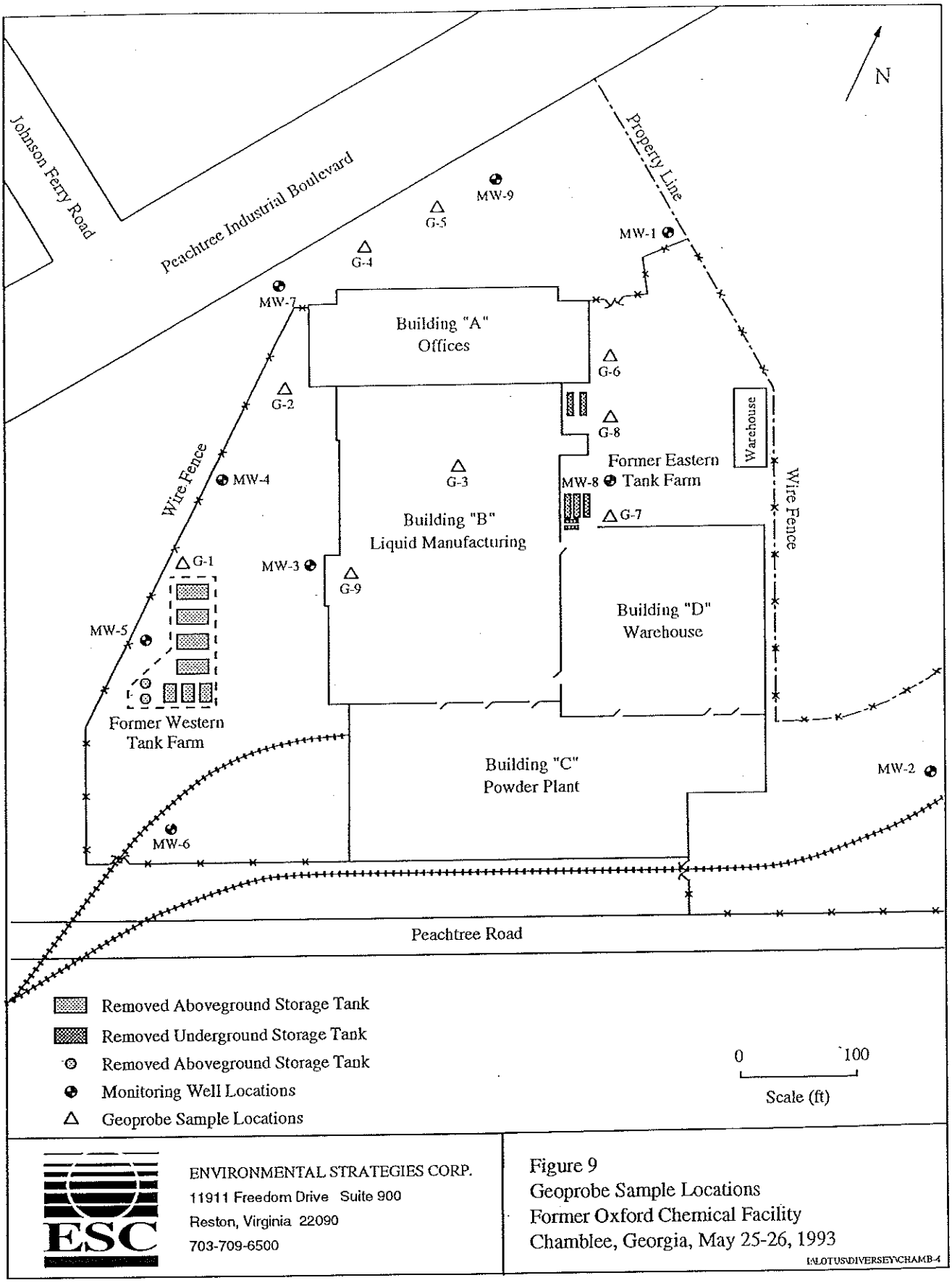
I:\LOTUS\DIVERSEY\CHAMB-2



ENVIRONMENTAL STRATEGIES CORP.
11911 Freedom Drive Suite 900
Reston, Virginia 22090
703-709-6500

Figure 5
Hand Auger Soil Sampling Locations
Former Oxford Chemical Facility
Chamblee, Georgia, May 10, 1993

L:\LOTUS\DIVERSEY\CHAMB-3



ENVIRONMENTAL STRATEGIES CORP.
11911 Freedom Drive Suite 900
Reston, Virginia 22090
703-709-6500

Figure 9
Geoprobe Sample Locations
Former Oxford Chemical Facility
Chamblee, Georgia, May 25-26, 1993

I:\LOTUS\DIVERSEY\CHAMB-4

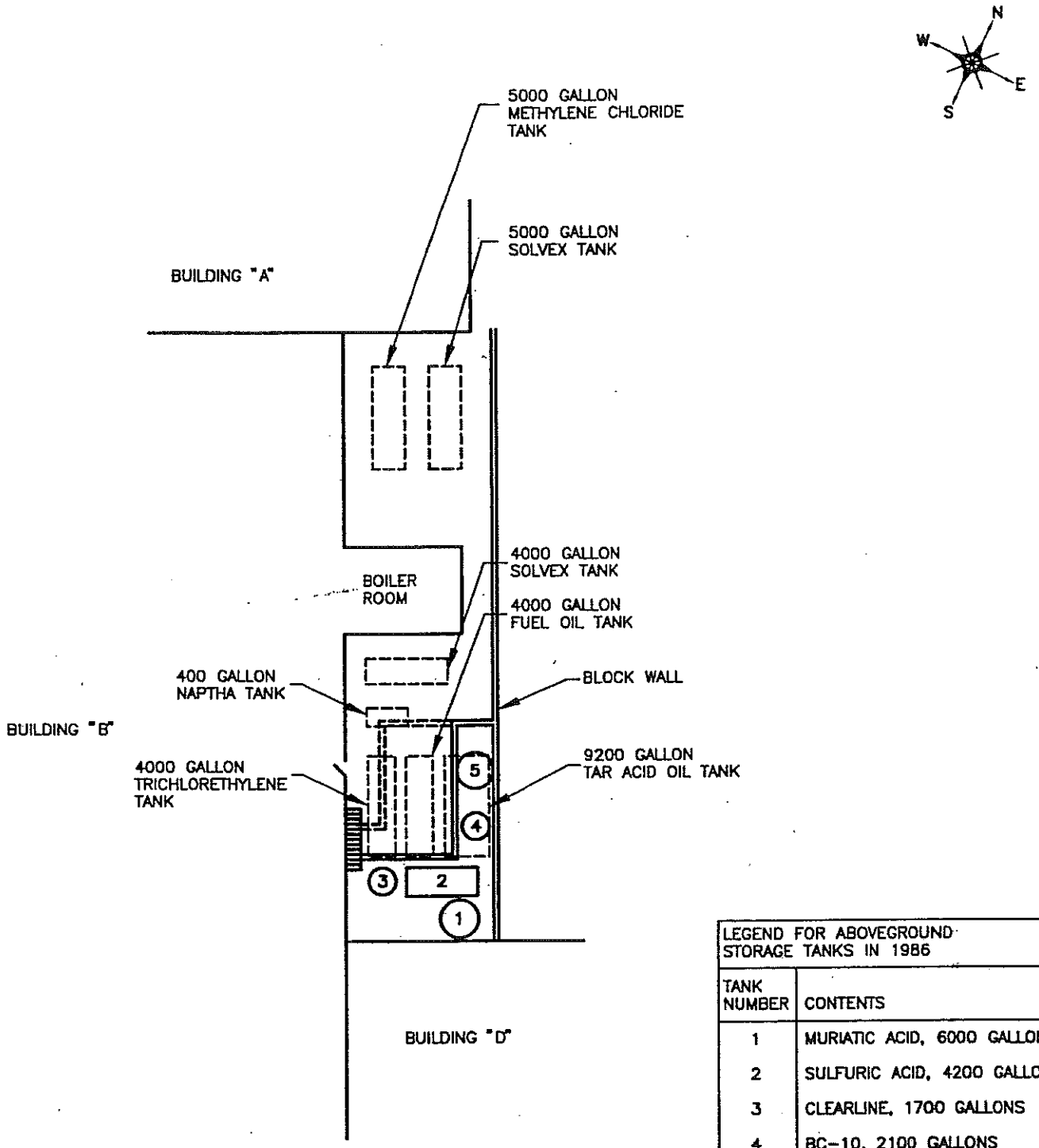
REVIEW OF ENVIRONMENTAL CONDITIONS AT THE OXFORD CHEMICALS, INC. SITE CHAMBLEE, GEORGIA

AUGUST 1993

PREPARED BY:

ENVIRONMENTAL RESOURCES MANAGEMENT-NORTH CENTRAL, INC.
540 LAKE COOK ROAD, SUITE 300
DEERFIELD, ILLINOIS 60015

PROJECT NO. 91022



LEGEND FOR ABOVEGROUND STORAGE TANKS IN 1986	
TANK NUMBER	CONTENTS
1	MURIATIC ACID, 6000 GALLONS
2	SULFURIC ACID, 4200 GALLONS
3	CLEARLINE, 1700 GALLONS
4	BC-10, 2100 GALLONS
5	PHOSPHORIC ACID

APPROX. SCALE (ft.)
0 30

SYMBOL LEGEND:
BUILDING LINE

FIGURE 2.2

UNDERGROUND STORAGE TANK AREA IN 1986 OXFORD CHEMICALS, INC. CHAMBLEE, GEORGIA

PROJECT 91022-2 | REVIEW OC | DRAWN CMM | CHECKED | DATE 8/27/93 | APPROVED | CLIENT NAME OXFORD CHEMICALS, INC.

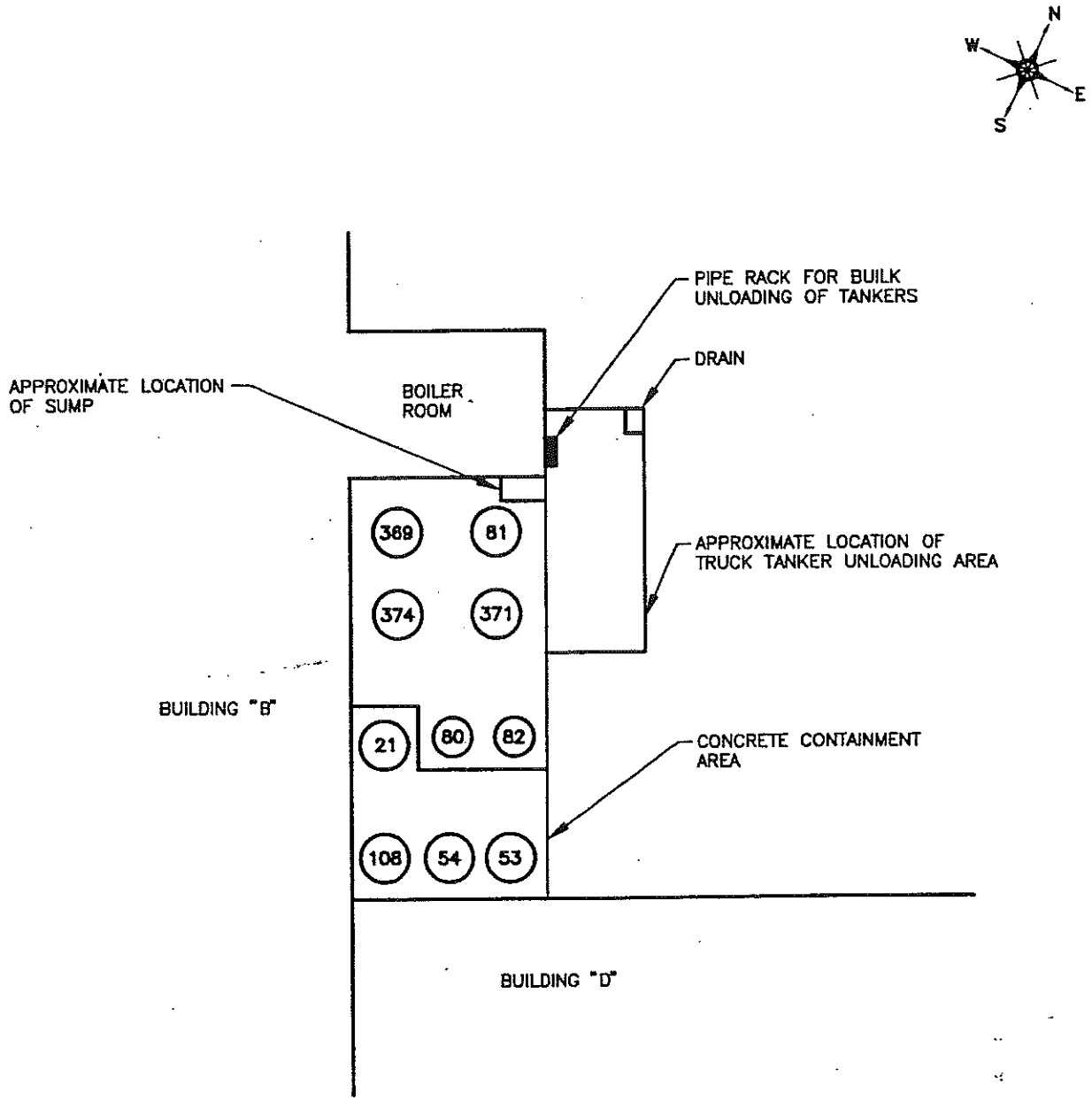


FIGURE 2.4

EAST SIDE ABOVEGROUND STORAGE TANK FARM WITH CONCRETE CONTAINMENT OXFORD CHEMICALS, INC. CHAMBLEE, GEORGIA

NOT DRAWN TO SCALE

SYMBOL LEGEND:
BUILDING LINE

PROJECT: 91022-2 | REVIEW: OC | DRAWN: CMM | CHECKED: | DATE: 8/27/93 | APPROVED: | CLIENT NAME: OXFORD CHEMICALS, INC.

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
128EX	Cacoa amide
13824	Resmethrin (5-benzyl-3-furyl)-methyl-2,2-dimethyl-3-(2-methylpropenyl)-cyolo-propane-carboxylate
2028	Barium soap of oxygenated hydrocarbon
212580	n-Alkyl dimethyl benzyl ammonium chloride n-Alkyl dimethyl ethylbenzyl ammonium chloride
2447	2,4-dichlorophenoxyacetic acid
2448	2,4-dichlorophenoxyacetic acid
303	Sodium xylene sulfonate
311	High molecular weight oxygenated hydrocarbons
4MAH	Cationic detergent 77%
5589	Soya soap
575	Sulfate castor oil
70HF	Hydrofluoric acid 70%
929	Cationic silicone emulsion 35%
934	Carboxy vinyl polymers
A292X	Xylene solution of polyester
A5	Epoxy resin
AC540	Polyethylene
ACA	Acetic acid 84%
AF2	Ethoxylated nonyl phenol
AL824	Aluminum, minus 6 plus 20 shot
ALL	Allethrin 2.5%
ALS200	Aluminum 200X needles
AM100	Mineral oil
AMS	Sodium metasilicate anhydrous
APCO	Kerosene
APS	Ammonium persulfate

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
AQD	Ashland quaternary surfactant
ARC	Ester of hydrogenated rosin
ASE108	Acrylic copolymer
BAG	Boric acid granular
BALT	Cobalt naphthenate 6%
BAN	Dursban
BARYTE	Barium sulfate
BAS	Barium sulfonate, neutral barium petrosol
BCSS	Ethylene glycol monobutyl ether and acetate
BGN	Bayagon
BHA	Butylated hydroxyanisole
BL344	Linear aliphatic polyether
BOSK	Diisobutyl ketone
BR66	Toluene solution of acrylic copolymer
BURT	alpha Olefin sulfonate sodium salt
BX4S	Dodecylphenoxybenzenedisulfonate acid
C2MSF	Cocoamphocarboxypropionate
BTC776	Quaternary ammonium chloride surfactant
C350	Methoxypolyethylene glycol
CA50	Citric acid 50%
CA95	Cresylic acid
CACL	Calcium chloride
CAH	Calcium oxide
CARBM	Disodium ethylene-bis-dithiocarbamate 30%
CE67	Oxidized wax
CHLOR	Chlorine gas
CL40	Chlorinated parafin

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
CMC	Carboxymethylcellulose
CNOX	Sodium polyacrylate 30%
CO880	Ethylene oxide
COR200	Silicone 200 fluid
CP835	Titanium dioxide
CZLF	2-Short chain alkyl-1-ethyl-oxypropionic imidazoline
CZS	Sulfonated lignin
D1	ortho-Phenylphenol
D2GT2	Triazinyl stilbene
D6GL	Veranthrene yellow 5 GLL paste
DAF1	Silicone
DAFG	Alphazurine FGND concentrate 200%
DAZO	AZO Phloxine GA EX Concentrate
DB94	Williams brown oxide B1894
DBT	Dibutyl phthalate
DCAP	Caramel color
DEEA	Diethyl ethanolamine
DENT	F D & C #40 red dye
DETU	1,3-Diethylthiourea
DG3	F,D & C green #3
DG48	Cyanine green dye
DG998	F D & C green shade 15998
DID	Dicarboxylic fatty acid
DKR	Ferric oxide
DLMP	Lampblack
DM970	Dinonylphenoxy poly(ethyleneoxy)ethanol
DMAMP	2-Dimethylamino-2-methyl-1-propanol

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
DMY	Calcocid yellow MXXX concentrate
DNEPTN	Acid blue #9 50%
DNG	Napthanol green B concentrate
DO2	Calcocid orange Y EX concentrate
DOO	Oil orange
DOP	Titaniun oxide In Di-2-emyl hexyl phthalate
DOW75	1-(3-Chloroallyl)-3,5,7-triaza-1-azoniadamantane
DPRR	Acid red 14
DPY	Acid yellow 17
DRB	Basic violet 10
DROS	Solvent red #49
DRSB	Acid orange #24
DSA	Sodium carbonate
DSKY	Direct blue 15
DST	Safanine T dye
DSYP	Pigment yellow 12
DTX	Resin soap
DUB	Acid yellow 73
DX	Resin soap
DY5	F D & C yellow #5
DY6172	Lemon yellow #LX6172
DY8	D & C yellow #8
EX450	Vinylchloride/vinylacetate copolymer
EYL	Ethylene glycol
FA211	Tall oil fatty acid
FA26	Tall oil fatty acid
FA622	Coconut fatty acid

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
FAD	Diatomaceous earth
FALO7	Formaldehyde 37%
FC905	Fluoro chemical
FC95	Fluoro chemical
FLOC8	Anionic polyacrylamide
FPO	Kerosene
G1441	Polyoxyethylene (40) Sorbitol, Lanolin alcaholysis product
GA49	Sodium glucoheptonate 50%
GAG	Clay
GAS10	Silicone oil emulsion
GBS	Sodium bisulfate
GG	Clay
GLP	Sodium hexametaphosphate
GMS	Glyceral monosterate
GUAR Gum	Guar Gum
GY300	2,4,4'-Trichloro-2'-hydroxydiphenyl Ether
HAA70	Hydroxyacetic acid 70%
HALSO	Monochlorotoluene and orthochlorotoluene
HNAT	Hydroxyethyl cellulose
HPO	Hydrogen peroxide 35%
HSB	Naptha aromatic
HXG	Hexylene glycol
HXP	Hexachlorophene
IPA	Isopropyl alcohol
K4D90	Sodium salt of dodecylbenzene sulfonic acid
KAN	Polysaccharide linear
KFCN	Potassium ferro cyanide

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
KH45	Caustic potash liquid 45%
KID	Potassium iodide
KLER	1,3,-Dicyloro-s-triazine-2,4,6(1h,3h,5h)-trione sodium salt
KMN	Potassium permanganate
KOB	Corn cobs
KP140	Tributoxyethyl phosphate
KPS	Potassium persulfate
L31R	Polyoxpropylene-polyoxyethylene ethanol
L61	Polyoxypropylene-polyoxyethylene condensate
L62	Polyoxypropylene-polyoxyethylene condensate
LENP	Perchlorethylene
LIN	Mided isopropylamines myristate
LNE	Lanolin
LOL5	C_{10}-C_{16} fatty alcohol
LOX	Lauryl amine oxide
LS500	Alkyl monophosphate
LSA	Sodium carbonate
LT24	Cationie polyacrylamide
M16	Morton styrene-acrylic emulsion
M300E	Morton styrene-acrylic emulsion
M305	Morton styrene-acrylic emulsion
M392N	Morton polyethylene emulsion
M403	Styrene-acrylic emulsion
M415	Styrene-acrylic emulsion
M4C	Protein silicon dioxide
MAD	Manganese dioxide
MAG12	Manganese naphthanate

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.
(Page 7 of 12)

Oxford Raw Material Code	Chemical Name
MAXT	Protease enzyme
MCAR	Diethylene glycol methyl ether
MCF	1,1,1-Trichlorothene
MCL	Hydroxypropyl methylcellulose
ME	Calcium silicate hydrous
MEA	Monoethanolamine
MEKT	Methyl ethyl ketone
MGK264	N-Octylbicyclohiptene dicarboximide
MGS	Magnesium sulfate
MHB	Methyl cellulose
MICE	Pumice
MON1	2-Benzyl-4-chlorophenol
MA20	Hydrochloric acid
MP95	Malathion
MPL	Morpholine
MSO	Mineral seal oil
MSPG	Monsodium phosphate
MST	Mineral spirits
MTC	Methylene chloride
MTL	Methanol
N139S	Methylvinyl ether/maleic anhydride
NA42	Nitric acid
NACL26	Sodium chloride
NAN	Sodium nitrate
NAPS	Sodium persulfate
NBS	Sodium silicate solution
NC202	Styrene-acrylic emulsion

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
NC260	Styrene-acrylic emulsion
NCP	Neutral calcium petrosul
NDW	Fally alcohol/fatty amine
NF12	Alkoxylated fatty alcohol
NH26	Ammonia
NHF2	Ammonium bifluoride
NMP	m-Methylpyrrodine
NOL25	Linear primary alcohol
OMS	Perfume
OTT	Parachlorometaxylenol
P1052	Tutti Frutti perfume
P16234	Clover perfume
P463	Floral perfume
P4X	Floral perfume
P560	Floral perfume
P639	Perfume
P6D	Perfume
P7532	Citrus perfume
P7546	Lilac perfume
PA75	Phosphoric acid 75%
PAG	Sodium dimethyl naphthalene sulfonate
PAMYL	Amyl acetate
PBA	Benzyl acetate
PBL	Lemon perfume
PCT	Cherry perfume
PCTL	Citral
PCTLEM	Lemon perfume

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
PCY	3,5,5-Trimethyl cyclohexanol
PDL	d-Limonene
PDO	Diphenyl oxide
PE10	Polyethylene emulsion
PEA	Ethyl acetate
PEB	Ethyl butyrate
PEDC	Eau de cologne
PEPR	Ethyl propionate
PET11	Sodium alkyl methyl naphthalene sulfonate
PFJJ	Baby powder perfume
PFOC	Oil of citronella
PFRB	Fruitty bouquet perfume
PFRUM	Rum ether
PGUM	Spearmint perfume
PH100	Phenol
PHY	Phenylethyl alcohol
PIMI	Mint ice perfume
PJA	Javallol perfume
PL20	Chlorinated polypropylene
PM	Propylene glycol monomthyl ether
PL430	Ethylbenzene vinylpyrolidine/styrene copolymer emulsion
PB210	Calcium, barium petronate in oil
PLC	Lemon perfume
PLEO	Lime oil synthetic
PMA	Methyl anthranalate
PMEN	Menthol
PMS	Methyl salicylate

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
PNA	Neutroleum alpha perfume
POB	Orange blossom perfume
PORM	Oil of rosemary perfume
POSD	Pine oil perfume
PPB	2-(2-Butoxyethoxy)ethoxy)-4,5-(methylene-dioxy)-2-propyl toluene
PPG	Propylene glycol
PPR	Penny royal oil perfume
PM40	Polyethylene emulsion
PQ32	Floral perfume
PSKH	Sassafras perfume
PSMT	Mint spice perfume
PTBP	p-Tert butyl phenol
PTL	Petrolatum
PVAN	Vanillin perfume
PVP90	Polyvinyl pyrrolidone
PW129	Paraffin
PWST	Wisteria oil perfume
PX20HR	Pyrethrin extract 20%
RA600	Complex organic phosphate ester, free acid
S5002	Shellac resin
SA120	Stearic acid
SA66	Sulfuric acid
SAM	Magnesium sulfonate
SAPP	Sodium acid pyrophosphate
SBC	Sodium bicarbonate
SELV	Polyvinyl alcohol
SFE	Sodium fluoride

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
SGC1	Sodium gluconate
SGC2	Sodium gluconate
SH50	Caustic soda liquid 50%
SH76	Caustic soda
SINA	Partial ester of styrene maleic anhydride copolymer
SL2135	Dimethyl polysiloxane
SL45	Dimethyl siloxane
SLF	Sodium sulfate
SLS30	Sodium lauryl sulfate
SLTG	Sodium sulfite
SMA	Sulfamic acid
SMD	Sodium molybdate
SMS	Sodium metasilicate pentahydrate
SNIF	Sodium nitrite granular
SKF77	Oil modified urethane in mineral spirits
SOLVX	Xylene
SPB	Sodium perborate
SPC	Sodium percarbonate
SPNL	Sulfonate petroleum
SQC	Sodium sequicarbonate
STB10	Borax 10 Mole
STB5	Borax 5 Mole
STOP	Sodium dimethyl dithiocarbonate
STPPA	Sodium tripolyphosphate
T51M	Benzotriazole
TCPK	Triaryl phosphate
TEA	Triethanolamine

TABLE 2.1

RAW MATERIAL LIST
OXFORD CHEMICALS, INC.

Oxford Raw Material Code	Chemical Name
TIRA	Thiourea
TKPP	Tetrapotassium tripyrophosphate
TONE	Acetone
TQUEST	Phosphonic acid [nitrilotris(methylene)]tris-pentasodium salt
TRO22	Modified sodium linear alkyl naphthalene sulfonate
TSPC	Trisodium phosphate crystalline
TSPP	Tetra sodium pyrosulfate
TWI	Iodine
THICS	Acrylic copolymer
TWEN60	Polyoxyethylene(20)sorbitan monostearate
TOL	Toluene
TYM	Tetrasodium Ethylenediaminetriacetate acid
UOL	Ethanol
UCON6	Polyalkylene glycol
VANGEL	Hydrated magnesium aluminum silicate
URC	Urea
USB1	Sodium alkyl aryl sulfonate
V475	Quaternary ammonium compound
VTH	Hexahydro-1,3,5,-triethyl-s-triazine
VV328	Quaternary ammonium chloride
VVMONA	Borate ester complex
WO72	Mineral oil
WSP	Cetyl palmitate
X100	Nonylphenol ethoxylate ethylene oxide
X190	Alkyl aryl polyether alcohol
X193	Nonionic surfactant
X830	Mixed xylenols
ZIN8	Diazinon

q:\chemvation\oxford\...

REPORT ON
ENVIRONMENTAL CONDITIONS
FORMER OXFORD CHEMICALS
CHAMBLEE, GEORGIA

DRAFT REPORT

PREPARED

BY

ENVIRONMENTAL STRATEGIES CORPORATION

JUNE 6, 2003

PEACHTREE INDUSTRIAL BOULEVARD 150'R/W

REFERENCES:

1 CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063, SCALE: 1"=40'

2 PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752582 C, SCALE: 1"=50'

SCALE, FEET
30 0 30 60

LEGEND

- MW-6 EXISTING MONITORING WELL
- MH MANHOLE
- D.I. DROP INLET
- C.B. CATCH BASIN
- J.B. JUNCTION BOX
- U.P. UTILITY POLE
- FH FIRE HYDRANT
- PROPERTY LINE
- FENCE LINE
- SANITARY SEWER LINE
- GAS LINE
- FORMER SEWER LINE
- EW-C5 SOIL VAPOR EXTRACTION WELL LOCATION
- APPROXIMATE SOIL BORING LOCATION (2002 – 2003)

B-7-02, B-6-02, B-32, B-33, B-12-03, B-31, B-5-02, B-11-02, B-01-02, B-30, B-10-02, B-9-02, B-8-02, B-29, B-13-03, B-27, B-28, B-14-03, B-26, B-15-03, B-25, B-16-03, B-17-03, B-18-03, B-20-03, B-21-03, B-22-03, B-19-03, B-23-03, B-24-03

NOTE: NO SOIL SAMPLES COLLECTED FROM B-9-02 OR B-11-02 DUE TO PRESENCE OF FREE PRODUCT.

Figure 7
Soil Sample Locations, 2002-2003
Rathon
Chamblee, Georgia

12249229.DWG

ENVIRONMENTAL STRATEGIES CORPORATION
11911 FREEDOM DRIVE, SUITE 900
RESTON, VIRGINIA 20190
(703) 709-6500

Table 1

Hydraulic Conductivity Estimates

Former Oxford Chemical Facility
Chamblee, Georgia

Conductivity Estimates from Falling Head Tests

Location	Test 1 [ft/day]	Test 2 [ft/day]	Geometric Mean [ft/day]
MW-1	0.56	0.86	0.69
MW-2	0.54	1.90	1.01
MW-3	0.98	1.22	1.09
MW-4	0.21	0.21	0.21
MW-5	0.28	0.31	0.29
MW-6	0.63	0.66	0.64
MW-7	0.55	0.58	0.56
MW-8	1.26	1.57	1.41
MW-9	2.47	2.82	2.64

Geometric mean of all wells [ft/day]	0.74
Geometric mean of all wells [cm/sec]	2.6E-04
Range of values [ft/day]	0.21 to 2.82

References: MW-1 through MW-9: Environmental Strategies, 1991.

ENVIRONMENTAL STRATEGIES CONSULTING LLC
11911 Freedom Drive, Suite 900 • Reston, Virginia 20190 • (703) 709-6500 • Fax (703) 709-8505

CORRECTIVE ACTION PLAN

RATHON CORP. PROPERTY SUBLISTED UNDER HAZARDOUS SITE INVENTORY #10072

CHAMBLEE, GEORGIA

PREPARED

BY

ENVIRONMENTAL STRATEGIES CONSULTING LLC

DECEMBER 1, 2005

A QUANTA TECHNICAL SERVICES COMPANY

PEACHTREE INDUSTRIAL BOULEVARD 150'R/W

GE APPARATUS SERVICE CENTER

REFERENCES:

1. CONROY & COOPER SURVEYING SERVICES DRAWING TITLED, "TOPOGRAPHIC SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION," DATED 5-6-97, DWG. NO. 97063. SCALE: 1"=40'
2. PEARSON & ASSOCIATES, INC. DRAWING TITLED, "BOUNDARY & ABOVE GROUND "AS-BUILT" SURVEY FOR: ENVIRONMENTAL STRATEGIES CORPORATION OF FORMER OXFORD CHEMICAL FACILITY," DATED JULY 19, 1994, REV. 4/11/97, PLAT NO. 94-0752562 C. SCALE: 1"=50'

SCALE, FEET
30 0 30 60

LEGEND

- MW-6 ⊕ EXISTING MONITORING WELL
- MH ○ MANHOLE
- D.I. ▫ DROP INLET
- C.B. ▫ CATCH BASIN
- J.B. ▣ JUNCTION BOX
- u.p.ø UTILITY POLE
- FH FIRE HYDRANT
- PROPERTY LINE
- FENCE LINE
- SANITARY SEWER LINE
- GAS LINE
- SOIL VAPOR EXTRACTION WELL
- 3/4"ø GROUNDWATER CONVEYANCE PIPING
- 2"ø GROUNDWATER CONVEYANCE PIPING
- 1/2"ø AIR SUPPLY PIPING
- 1"ø AIR SUPPLY PIPING

TREATMENT SYSTEM PAD
EXISTING TREATMENT BUILDING
HOLDING POND
VAULT
VAULT COVER
WESTERN LOADING DOCK AREA
LOADING DOCK
GUARD HOUSE
METAL BLDG.
FENCELINE ALONG WALL
HOPPER
TRACK SWITCH
6' WOOD PRIVACY FENCE
6' CHAINLINK FENCE
RAILROAD SPUR
CONCRETE WALK
PAVED WALK
CONCRETE
ASPHALT
DIRT
GUARDRAIL

℄ PEACHTREE ROAD 50'R/W

REVISIONS			
REV	DESCRIPTION		
1	Revised	Date	Appr.
2	Revised	Date	Appr.
3	Revised	Date	Appr.

SEAL

DATE

DRAWN BY EGC
CHECKED
APPROVED

REMEDIATION SYSTEM

RATHON CORP
CHAMBLEE, GEORGIA

PREPARED FOR
RATHON CORP

ENVIRONMENTAL STRATEGIES CONSULTING LLC
11911 FREEDOM DRIVE SUITE 900
RESTON, VIRGINIA 20190
(703) 709-6500

FIGURE 4

Drawing Number
12249274

REMEDIAL FEASIBILITY ASSESSMENT

GENERAL ELECTRIC COMPANY
APPARATUS SERVICE CENTER
5035 PEACHTREE INDUSTRIAL BOULEVARD
CHAMBLEE, GEORGIA

12 JULY 1995

Prepared for:

GENERAL ELECTRIC COMPANY
Building 6, Room 211
One River Road
Schenectady, New York 12345

Prepared by:

Robert W. Zei
Senior Geologist

Prepared and Reviewed by:

Edward F. Jamison
Project Manager
Hydrogeologist

Michael T. Christopher, CPG
Georgia PG #1206
Site Manager

Groundwater & Environmental Services, Inc.
410 Eagleview Boulevard, Suite 110
Exton, Pennsylvania 19341
(610) 458-1077

TABLE 5

NAPL ANALYTICAL DATA SUMMARY
GENERAL ELECTRIC APPARATUS SERVICE CENTER
5035 PEACHTREE INDUSTRIAL BOULEVARD
CHAMBLEE, GEORGIA

SAMPLE LOCATION	PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	TOTAL PCBs	SPECIFIC GRAVITY	VISCOSITY
BH-2	<3	<1	<5	<3	<3	<5	125	125	0.88	19
OW-7R	<30	<1	<40	59	<30	<10	87	146	0.90	19

PCB concentrations (via EPA Method 8080) reported in milligrams per kilogram (mg/kg)
Viscosity (Brookfield) reported in centipoise (cp)

BH-2 sample collected on 4 May 1995, OW-7R sample collected on 6 May 1995.

REMEDIAL ACTION PLAN

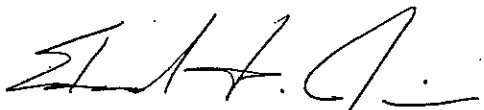
GENERAL ELECTRIC COMPANY
CHAMBLEE APPARATUS SERVICE CENTER
5035 PEACHTREE INDUSTRIAL BOULEVARD
CHAMBLEE, GEORGIA

30 OCTOBER 1996

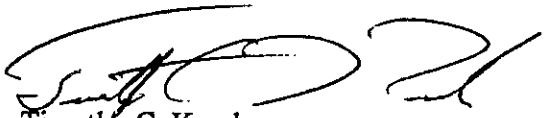
Prepared for:

GENERAL ELECTRIC COMPANY
Building 6, Room 211
One River Road
Schenectady, New York 12345

Prepared and Reviewed by:

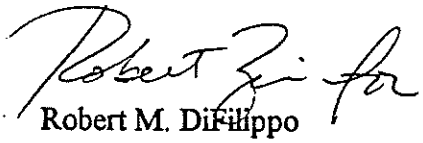


Edward F. Jamison
Senior Project Manager
Senior Hydrogeologist



Timothy C. Kessler
Senior Engineer

Reviewed and Approved by:



Robert M. DiFilippo
Principal Hydrogeologist
Vice President

Groundwater & Environmental Services, Inc.
410 Eagleview Boulevard, Suite 110
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3.4 Wastestream Composition

During August 1996, a series of groundwater and NAPL samples were collected from select wells on the GE and Diversey Properties for laboratory analysis. This sampling program was conducted to determine the presence and concentration of compounds of concern in the sampled media (i.e., groundwater and NAPL) and predict the composition of fluids that will be recovered by the remedial system. Samples were collected from strategic locations and composited at the laboratory to provide an spatial assessment of the composition of groundwater and NAPL throughout various regions of the two properties. The NAPL sample collected from BH-11 on the Diversey property was not composited with any other Diversey NAPL sample because no other well in the vicinity of the proposed Diversey recovery wells (RW-18 and RW-19) exhibited NAPL at recoverable thicknesses. The sample compositing protocol followed for the groundwater and NAPL sampling event performed on the GE and Diversey properties is summarized below:

Groundwater (GW) Composite Samples

GE - GW #1:	OW-1 and OW-6
GE - GW #2:	RW-9, RW-15, and RW-17
GE - GW #3:	RW-1, RW-5, and RW-12
Diversey - GW #1:	BH-14, BH-16, BH-19, and BH-20
Diversey - GW #2:	BH-7 and BH-24

NAPL Composite Samples

GE - NAPL #1:	RW-1 and Sump
GE - NAPL #2:	RW-4 and RW-5
GE - NAPL #3:	RW-6 and RW-9
GE - NAPL #4:	RW-13, RW-15, and RW-16
Diversey - NAPL #1:	BH-11

The groundwater and NAPL samples were collected and submitted under chain of custody to Kiber Environmental Services, Inc. (Kiber) of Atlanta, Georgia for laboratory analysis. The composite groundwater and NAPL samples were analyzed for the following compounds:

Groundwater Samples

- total petroleum hydrocarbons
- oil and grease (O&G)
- polychlorinated biphenyls (PCBs)
- volatile organic compounds
- semi-volatile organic compounds
- total and dissolved metals/cations (lead, iron, magnesium, manganese, and calcium)
- total anions (bicarbonate, carbonate, chloride, fluoride, nitrate, and sulfate)
- total dissolved, suspended, and settleable solids

NAPL Samples

- polychlorinated biphenyls (PCBs)
- volatile organic compounds
- semi-volatile organic compounds
- flash point
- boiling point

Groundwater Analysis Results

Laboratory analytical data summaries for the composite groundwater samples are provided in Table 1. The distribution of volatile-, semi-volatile organic, and PCB compounds in groundwater is illustrated on Figure 9. In general, laboratory analysis detected the presence of petroleum hydrocarbon compounds in all of the five composite groundwater samples collected from the GE and Diversey properties. O&G was detected in three of the five composite groundwater samples (GE GW #2 and #3, Diversey GW #1). PCB compounds were detected in four of the five composite groundwater samples at concentrations ranging from 0.19 micrograms per liter (µg/L) (GE GW #3) to 27 µg/L (Diversey GW #1).

Total volatile organic compounds were detected above practical quantitation limits (PQL) in all five composite groundwater samples at concentrations ranging from 1,669.1 µg/L (GE GW #1) to 19,959.5 µg/L (Diversey GW #2). The distribution of total volatile organic compounds in groundwater suggest that the higher concentrations of volatile organic compounds in groundwater are present in the southwestern region of the site (on the GE and Diversey properties), with the highest concentrations being detected in wells on the Diversey property. Groundwater samples collected from the Diversey property displayed a wider diversity of volatile organic compounds.

Semi-volatile organic compounds were detected in the five composite groundwater samples at concentrations ranging from 26 µg/L (GE GW #1) to 1,357.9 µg/L (Diversey GW #2). The specific semi-volatile organic compound displaying the greatest concentration consisted of 1,2,4-trichlorobenzene (1,100 µg/L) was detected in the Diversey GW #2 sample.

NAPL Analysis Results

Laboratory analytical data summaries for the NAPL samples are provided in Table 2. The distribution of analyzed compounds in NAPL is illustrated on Figure 10. In general, laboratory analysis detected the presence of PCBs (Aroclor-1260) in all five NAPL samples at concentrations ranging from 1.5 milligrams per kilogram (mg/kg) (GE NAPL #4) to 63 mg/kg (Diversey NAPL #1). The distribution data of PCB compounds in NAPL samples suggest that the two samples displaying the greatest concentrations of PCBs in NAPL are present in the central area of the GE shop (GE NAPL #3 [RW-6 and RW-9]; 12 mg/kg) and the Diversey property (Diversey NAPL #1 [BH-11]; 63 mg/kg).

Total volatile organic compounds were detected above the PQL in all five composite NAPL samples at concentrations ranging from 346 mg/L (Diversey NAPL #1) to 5,130.8

mg/L (GE NAPL #3). Specific volatile organic compounds that were more prevalent and displayed higher concentrations include 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene. The distribution of total volatile organic compounds in NAPL suggest that the higher concentrations of volatile organic compounds in NAPL are present in the central area of the GE shop (GE NAPL #3). However, the NAPL sample collected from the Diversey property (Diversey NAPL #1) displayed a wider diversity of volatile organic compounds.

Semi-volatile organic compounds were detected in the five NAPL samples collected from the GE and Diversey properties. Total semi-volatile organic concentrations ranged from 230 mg/L (GE NAPL #1) to 1,062 mg/L (Diversey NAPL #1). The specific semi-volatile organic compound displaying the greatest concentration, consisting of bis(2-ethylhexyl)phthalate (530 mg/L), was detected in the Diversey NAPL #1 sample.

All detected compounds, including results flagged as "J-values", were summed to obtain the total concentration of a particular suite of compounds. "J-values" represent concentrations detected above the laboratory method detection limit (MDL) but below the practical quantitation limit (PQL) or reporting limit. Although the reported concentrations of analytes flagged as "J-values" should be considered estimates, these data are included herein because the compounds may be present at the reported concentration and, from a remedial system design standpoint, should be recognized in the characterization of the influent wastestream. The composite groundwater and NAPL sample analytical data will be utilized to assess the composition of the influent fluid wastestream to the remedial system. These data will also be utilized to determine appropriate sizing for various treatment system components.

SECTION 4.0 REMEDIAL SYSTEM STRATEGY AND DESIGN

A remedial strategy was developed based on the findings of the investigative activities performed at the site. Based on the findings of the investigative activities, the following primary objectives of the remedial strategy were developed:

- recover NAPL from the plume identified on the GE property
- inhibit further NAPL migration onto the adjoining Diversey property
- recover NAPL from the plume identified on the adjoining Diversey property
- minimize groundwater recovery

The remedial strategy to accomplish the primary remedial objectives for the GE and Diversey properties is summarized in the following paragraphs.

Findings of the remedial feasibility assessment indicated that a greater volume of NAPL could be recovered under water-table depression conditions than by passive recovery under static conditions. Also, data indicated that larger diameter wells would provide more effective NAPL recovery than similarly-constructed two-inch diameter wells.

TABLE 2
NAPL ANALYTICAL DATA SUMMARY
GENERAL ELECTRIC COMPANY
APPARATUS SERVICE CENTER
5035 PEACHTREE INDUSTRIAL BOULEVARD
CHAMBLEE, GEORGIA

SAMPLING DATES: 26-29 AUGUST 1996

	GE NAPL #1	GE NAPL #2	GE NAPL #3	GE NAPL #4	DIVERSEY NAPL#1
VOLATILE ORGANICS					
Benzene	BQL	BQL	BQL	BQL	9J
Chloroethane	BQL	3.1J	4.6J	4.2J	BQL
1,1-Dichloroethane	83	62	260	60	12J
1,2-Dichloroethane	BQL	1.4J	BQL	BQL	BQL
1,1-Dichloroethene	74	100	310	25	19J
cis-1,2-Dichloroethene	BQL	BQL	10	BQL	20
Ethylbenzene	BQL	BQL	3.6J	2.4J	BQL
Methylene chloride	BQL	BQL	BQL	BQL	11BJ
Tetrachloroethene	2.9J	BQL	160	1.9J	7J
Toluene	2.3J	2.1J	BQL	2.9J	BQL
1,1,1-Trichloroethane	1,760	460	4,360	430	250
1,1,2-Trichloroethane	BQL	BQL	1.9J	BQL	BQL
Trichloroethene	14	2.9J	8.2	7.2	BQL
1,2,4-Trimethylbenzene	1.8J	1.7J	2.4J	1.9J	BQL
1,3,5-Trimethylbenzene	BQL	BQL	1.6J	BQL	BQL
Xylene (total)	BQL	BQL	8.5	1.8	1.8J
TOTAL VOLATILE ORGANICS	**1,938.0**	**633.2**	**5,130.8**	**553.5**	**270.0**

SEMI-VOLATILE ORGANICS					
Acenaphthene	BQL	62J	BQL	BQL	BQL
bis(2-Ethylhexyl)phthalate	BQL	BQL	BQL	BQL	530J
2,4-Dinitrotoluene	BQL	BQL	89J	BQL	BQL
2-Methylnaphthalene	BQL	BQL	BQL	BQL	92J
Phenanthrene	230J	280J	240J	260J	440J
TOTAL SEMI-VOL. ORGANICS	**230**	**342**	**329**	**260**	**1,062**

PCBs					
Total PCBs (Aroclor 1260)	2.4	5.4	12	1.5	63

BQL= below quantitation limit

Volatiles (SW-846 Method 8260A), semi-volatiles (SW-846 Methods: 3580A, 3510B, and 8270B), and PCBs (SW-846 Methods: 3510B, 3580A, 3550A, and 8081) concentrations are expressed in milligrams per kilogram (mg/kg). A complete list of non-detected analytes (concentrations below method detection limits) is provided on the attached analytical data sheets.

GE NAPL #1= SUMP and RW-1 NAPL fluid composite

GE NAPL #2= RW-4 and RW-5 NAPL fluid composite

GE NAPL #3= RW-6 and RW-9 NAPL fluid composite

GE NAPL #4= RW-13, RW-15 and RW-16 NAPL fluid composite

DIVERSEY NAPL #1= BH-11 NAPL sample

J= estimated value, lower than Practical Quantitation Limit (PQL) but greater than Method Detection Limit (MDL)

B= analyte found in blank (possible/probable blank contamination)

Operation, Maintenance, & Monitoring Report

4th Quarter 2004

General Electric International, Inc.
GE Chamblee Apparatus Service Center
5035 Peachtree Industrial Boulevard
Chamblee, Georgia 30341

HSI# 10072

Prepared for:

GE Energy
Building 43, Room 243
One River Road
Schenectady, New York 12345

Prepared by:

Groundwater & Environmental Services, Inc.
5961 Live Oak Parkway, Suite B
Norcross, Georgia 30093

20 January 2005

WASTE DISPOSAL

On 27 October 2004, approximately 300 gallons of LNAPL and water stored in the aboveground storage tank were removed and properly transported off-site to the Emelle chemical waste management facility in Emelle, Alabama for disposal. A copy of the waste manifest is included with this report as **Appendix A**.

On 20 December 2004, a sample of the recovered LNAPL was collected from the drums for waste characterization purposes. Samples were submitted to Georgia-licensed STL and analyzed for VOCs and PCBs via USEPA Method 8260B and 8082, respectively. The analytical results indicated that concentrations of all analyzed constituents exceeded the Toxic Substances Control Act (TSCA) regulated standards. The analytical results also indicated the presence of VOCs in the waste LNAPL at concentrations surpassing the Resource Conservation and Recovery Act (RCRA) hazardous characteristics. Based upon the analytical results, the waste LNAPL will be profiled as hazardous waste (waste code D029) due to the concentration of 1,1-Dichloroethene. The analytical data are summarized in **Table 5**.

CONCLUSIONS AND ACTION ITEMS

During the 4th Quarter of 2004, GES continued to perform OM&M activities, collect liquid level data, and evaluate system performance. Prior to system deactivation on 30 August 2004, the system performed to design specifications.

During the 1st Quarter 2005, GES will continue to perform biweekly gauging. Further evaluation of system modifications will be continued during this quarter.

FIGURES

Figure 1 – Site Map
Figure 2 – Cumulative Fluid Recovery Over Time
Figure 3 – Historical LNAPL/Water Volume in Recovery Tank
Figure 4 – Groundwater Contour Map – 2 December 2004
Figure 5 – LNAPL Isopach Map – 2 December 2004
Figure 6 – Quarterly LNAPL Recovery Rate
Figure 7 – Cumulative Volume of Fluid Recovered from Rathon Property

TABLES

Table 1 – LNAPL Recovery Pump Status
Table 2 – System LNAPL Recovery Data
Table 3 – System Water Recovery Data
Table 4 – Liquid Level Data Summary
Table 5 – Recovered Oil Waste Characterization Data Summary
Table 6 – Fluid Recovery Data from Rathon Property

Table 5
Recovered Oil Waste Characterization Data Summary
General Electric International, Inc.
Chamblee Apparatus Service Center
5035 Peachtree Industrial Boulevard
Chamblee, Georgia 30341

Sample Collected December 20, 2004

SAMPLE LOCATION	LNAPL		
	Result	units	Toxicity Regulatory Limit
Volatile Organic Compounds			
Acetone	<500,000	µg/kg	
Benzene	<50,000	µg/kg	500
Bromobenzene	<50,000	µg/kg	
Bromochloromethane	<50,000	µg/kg	
Bromodichloromethane	<50,000	µg/kg	
Bromoform	<50,000	µg/kg	
Bromomethane	<50,000	µg/kg	
2-Butanone	<250,000	µg/kg	200,000
Carbon Disulfide	<50,000	µg/kg	
Carbon Tetrachloride	<50,000	µg/kg	500
2-Chloroethylvinyl ether	<500,000	µg/kg	
2-Chlorotoluene	<50,000	µg/kg	
4-Chlorotoluene	<50,000	µg/kg	
Chlorobenzene	<50,000	µg/kg	100,000
Chloroethane	<50,000	µg/kg	
Chloroform	<50,000	µg/kg	6,000
Chloromethane	<50,000	µg/kg	
1, 2-Dibromoethane	<50,000	µg/kg	
1,2-Dibromo-3-chloropropane	<100,000	µg/kg	
Dibromochloromethane	<50,000	µg/kg	
1, 2-Dichlorobenzene	<50,000	µg/kg	
1, 3-Dichlorobenzene	<50,000	µg/kg	
1, 4-Dichlorobenzene	<50,000	µg/kg	7,500
1, 1-Dichloroethane	**120,000**	µg/kg	
1, 1-Dichloroethene	**180,000**	µg/kg	**700**
1, 2-Dichloroethane	<50,000	µg/kg	500
cis-1,2-Dichloroethene	<50,000	µg/kg	
trans-1, 2-Dichloroethene	<50,000	µg/kg	
Dichlorodifluoromethane	<50,000	µg/kg	
1, 2-Dichloropropane	<50,000	µg/kg	
2, 2-Dichloropropane	<50,000	µg/kg	
1,3-Dichloropropane	<50,000	µg/kg	
1,1-Dichloropropene	<50,000	µg/kg	
cis-1, 3-Dichloropropene	<50,000	µg/kg	
trans-1, 3-Dichloropropene	<50,000	µg/kg	
Ethylbenzene	<50,000	µg/kg	
2-Hexanone	<250,000	µg/kg	
Hexachlorobutadiene	<50,000	µg/kg	500
Isopropylbenzene	<50,000	µg/kg	
Methylene Chloride	<50,000	µg/kg	
4-Methyl-2-Pentanone	<250,000	µg/kg	
Napththalene	<50,000	µg/kg	
n-Butylbenzene	<50,000	µg/kg	
n-Propylbenzene	<50,000	µg/kg	
p-Cymene	<50,000	µg/kg	
sec-Butylbenzene	<50,000	µg/kg	
Styrene	<50,000	µg/kg	
tert-Butylbenzene	<50,000	µg/kg	
1, 2, 3-Trichlorobenzene	<50,000	µg/kg	
1, 2, 4-Trichlorobenzene	<50,000	µg/kg	
1, 1, 1, 2-Tetrachloroethane	<50,000	µg/kg	
1, 1, 2, 2-Tetrachloroethane	<50,000	µg/kg	

Table 5
Recovered Oil Waste Characterization Data Summary
General Electric International, Inc.
Chamblee Apparatus Service Center
5035 Peachtree Industrial Boulevard
Chamblee, Georgia 30341

Sample Collected December 20, 2004

SAMPLE LOCATION	LNAPL		
	Result	units	Toxicity Regulatory Limit
Volatile Organic Compounds, Continued			
Tetrachloroethene	<50,000	µg/kg	700
Toluene	<50,000	µg/kg	
1, 1, 1-Trichloroethane	**1,800,000**	µg/kg	
1, 1, 2-Trichloroethane	<50,000	µg/kg	
Trichloroethene	<50,000	µg/kg	500
Trichlorofluoromethane	<50,000	µg/kg	
1, 2, 3-Trichloropropane	<50,000	µg/kg	
1, 2, 4-Trimethylbenzene	<50,000	µg/kg	
1, 3, 5-Trimethylbenzene	<50,000	µg/kg	
Vinyl Acetate	<100,000	µg/kg	
Vinyl Chloride	<50,000	µg/kg	200
Xylenes (Total)	<100,000	µg/kg	
PCBs			
Arochlor 1016	<10,000	µg/kg	
Arochlor 1221	<20,000	µg/kg	
Arochlor 1232	<10,000	µg/kg	
Arochlor 1242	**66,000**	µg/kg	
Arochlor 1248	<10,000	µg/kg	
Arochlor 1254	<10,000	µg/kg	
Arochlor 1260	**85,000**	µg/kg	
Total PCB's	**151,000**	µg/kg	50,000

PCBs = polychlorinated biphenyls
Volatile Organic Compound (VOC) analyses were performed via EPA Method 8260B
Polychlorinated Biphenyl (PCB) analyses were performed via EPA Method 8082.
LNAPL = Light Non-Aqeous Phase Liquids
µg/kg - micrograms per kilogram
P- Identification of target analytes using GC methodology is based on retention time. Although two dissimiliar GC columns confirmed the presence of the target analyte in the sample, relative percent difference is >40%. Thus, viewer discretion should be employed during data review and interpretation of results for this target compound.

Appendix C
Select Regulatory Correspondence

- December 29, 1994, HSRA Release Notification, Former Oxford Chemical Facility
- January 29, 2007, Rathon CSR Notice of Deficiencies/CAP Approval, GE Chamblee Apparatus Service Center, HSI # 10072

RELEASE NOTIFICATION/REPORTING FORM

HAZARDOUS SITES RESPONSE PROGRAM
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
(Please type or print legibly)

FOR OFFICE USE ONLY

HSRP ID _____

RECEIVED
DEC 30 1994
Environmental Protection Div.
Hazardous Waste Mgmt. Branch

PART I -- PROPERTY INFORMATION

1. The information provided in this form is for:	2. Which of the following apply to this site? (Check all that apply)
[X] Initial Release Notification [ ] Reportable Quantity Release Reporting (See Question 22 on the back of this form if you check this box.) [ ] Supplemental Information	[X] Release to groundwater [X] Release to soil [ ] Other releases (e.g. discarded or abandoned substances, etc.)

3	EPA I.D. Number (if applicable)	GAD040674582				
4	Site or Facility Name	Former Oxford Chemical Facility				
5	Site Street Address	5001 Peachtree Industrial Boulevard				
6	Site City	Chamblee	County	Dekalb	ZIP	30341
7	Property Owner	Diversey Corp.				
8	Property Owner Mailing Address	12025 Tech Center Drive				
9	Property Owner City	Livonia	State	MI	ZIP	48150
10	Property Owner Telephone No.	(313) 458-5000				
11	Site Contact Person	Paul Wojcik	Title	Former Plant Manager		
12	Company Name	Diversey Corp.				
13	Site Contact Mailing Address	12025 Tech Center Drive				
14	Site Contact City	Livonia	State	MI	ZIP	48150
15	Site Contact Telephone No.					
16	Facility Owner/Operator		Title			
17	Company Name					
18	Facility Owner/Operator Mailing Address					
19	Facility Owner/Operator City		State		ZIP	
20	Facility Owner/Operator Telephone No.					

21. SITE SUMMARY -- Attach a summary (no longer than one page) that gives a general description of the property, the areas affected by the release both within and beyond the property boundaries, and any actions taken to investigate, clean up or otherwise remediate the property. In addition to the one page summary, other information concerning the property may also be attached.

-- OVER --

REQUIRED ATTACHMENT -- Along with this form, you MUST submit an original of a USGS topographical map (1:24000) with the geographic center of the site clearly marked. See the instructions for information on how to obtain an original of the map on which your site is located.	FOR OFFICE USE ONLY Quadrangle Name: _____ Latitude: ____ ° ____ ' ____ " Longitude: ____ ° ____ ' ____ "

22. ADDITIONAL INFORMATION FOR REPORTABLE QUANTITY RELEASE REPORTING -- If you checked the box for **Reportable Quantity Release Reporting** in Question 1 on the other side of this form, you must also attach the following information:

A. A description of the property boundaries of this site and adjacent properties, either by legal description, survey plat, tax map, or other means.

B. A **DETAILED** description of the nature and the known or estimated extent of the area contaminated, both within and beyond the site's property boundaries. Drawings or tracings on attached maps may be used.

23. **CERTIFICATION** -- 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.

MARK J. HANEET	VICE PRESIDENT
NAME (Please type or print)	TITLE
Mark J Haneet	29 December 1994
SIGNATURE	DATE

REV. 2/94

Release Notification/Reporting Form

Part I - Property Information

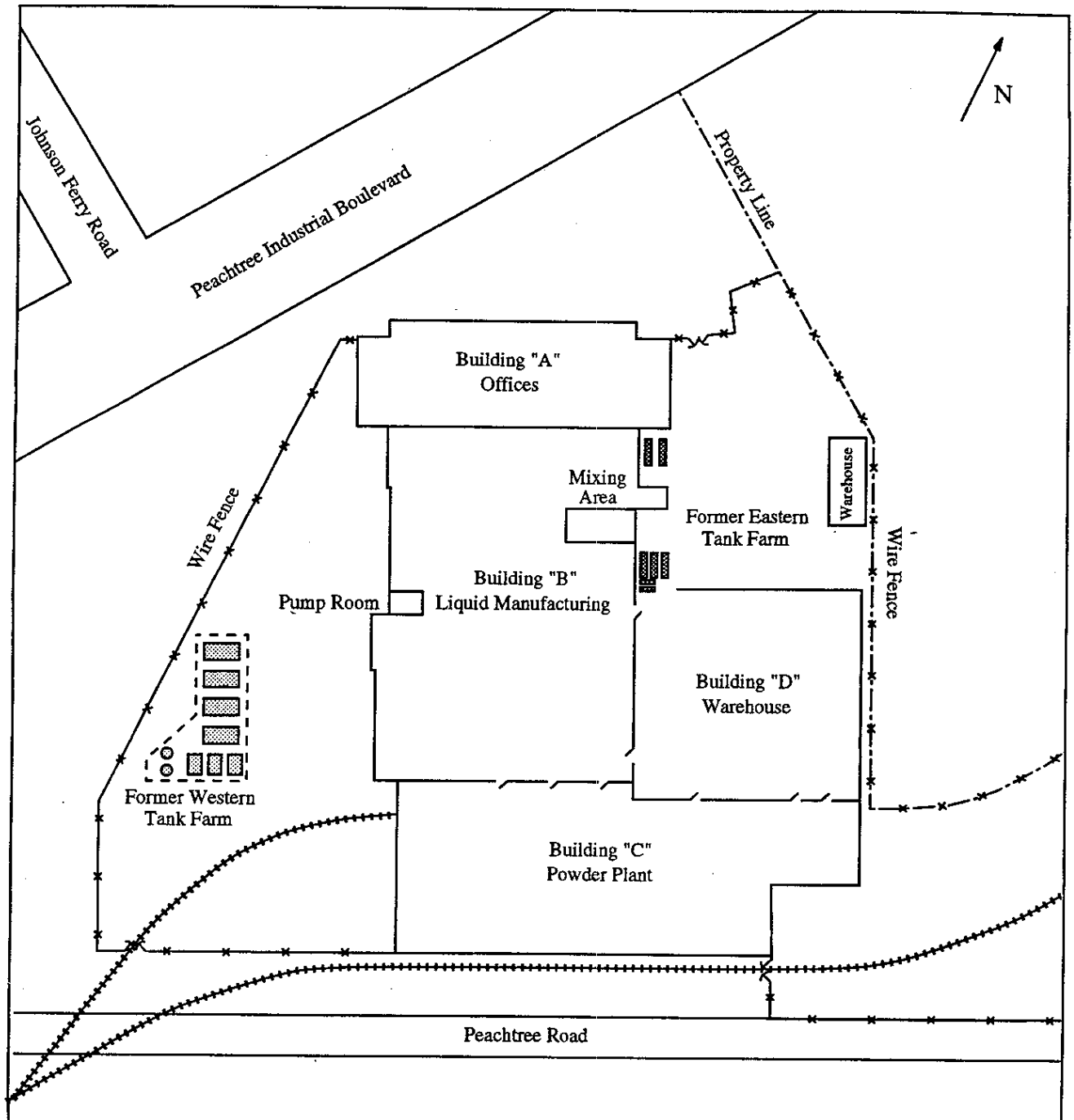
Question 21. Site Summary

The former Oxford Chemical facility is located at 5001 Peachtree Industrial Boulevard in Chamblee, Dekalb County, Georgia (see Figure 1). The facility occupies approximately 9.11 acres of land and is currently vacant. Between January 1992 and January 1993, the plant was fully decommissioned. During its operation, the facility formulated various chemical products ranging from drain cleaners to insecticides. The four buildings at the site comprise approximately 160,000 square feet of floor space and were divided into offices, warehouse, a liquid manufacturing area, a powder area, and a bleach manufacturing area. (Figure 2). The plant building is currently surrounded by a cyclone fence with three locking gates. The facility is bordered to the east by a General Electric transformer repair facility, to the south by several small commercial buildings and an Atlanta rapid transit line, to the west by a nursery and several commercial buildings, and to the north and northwest by Peachtree Industrial Boulevard with a Frito Lay bakery beyond.

At present, work related to the environmental concerns at the site has included a Phase I Environmental Site Assessment, various Soil and Groundwater Investigations (Figures 3 and 4), quarterly groundwater monitoring, a Treatability Study, and a Dual Vapor Extraction Pilot test.

The results of previous investigations at the site indicated the presence of pesticides, volatile organic compounds, semi-volatiles, and heavy metals. Based on the available information, it appears that hazardous constituents have affected the surficial aquifer beneath the western and eastern portions of the site.

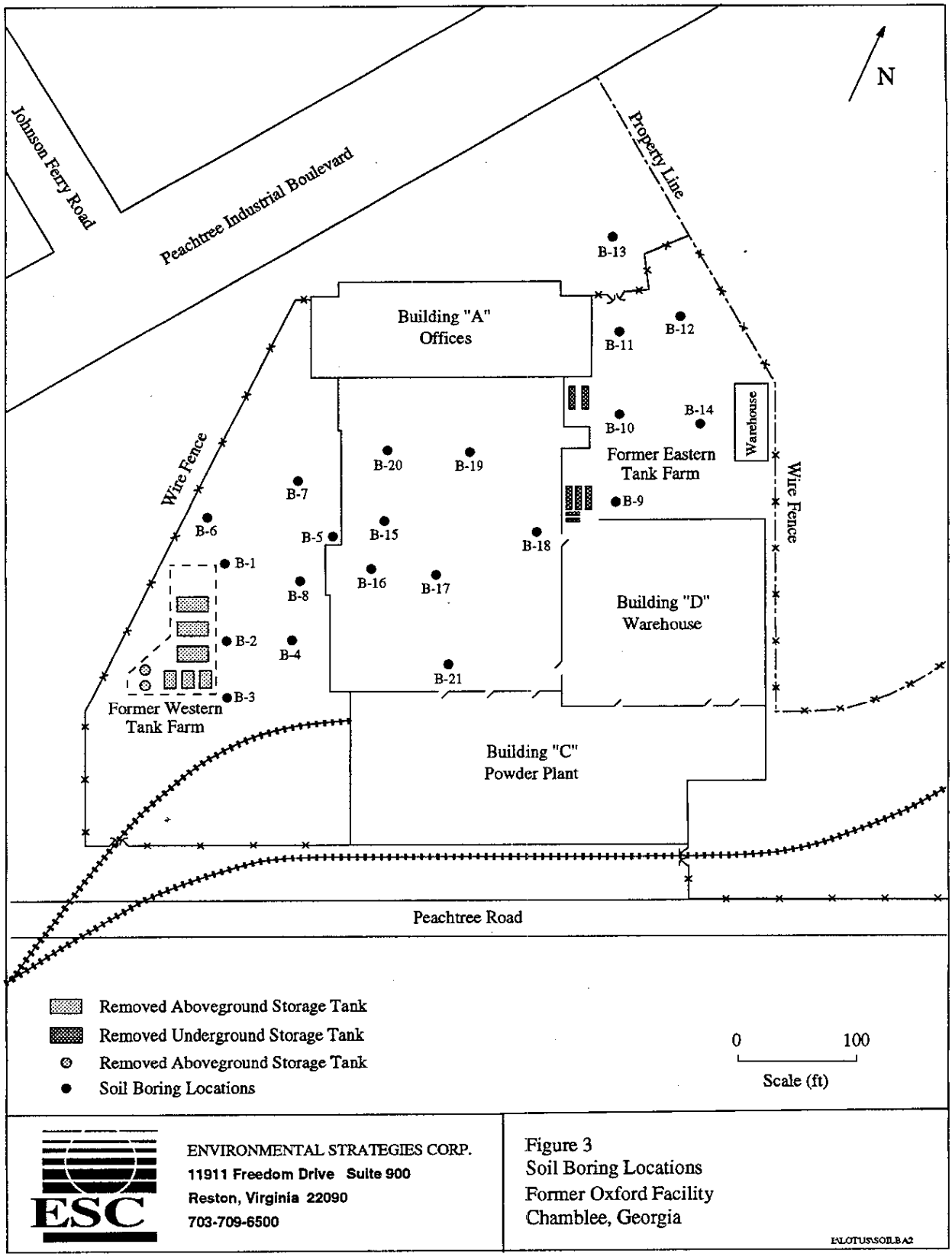
In accordance with the Hazardous Site Response Act Chapter 391-3-07, remedial alternatives are currently being evaluated to meet the recently established risk reduction standards. It should be noted that the Georgia Environmental Protection Division was previously notified of environmental conditions at the site in 1988, 1989, and 1991. On January 15, 1991, a preliminary risk assessment and feasibility study report was submitted to the Georgia Department of Natural Resources.



ENVIRONMENTAL STRATEGIES CORP.
11911 Freedom Drive Suite 900
Reston, Virginia 22090
703-709-6500

Figure 2
Site Layout
Former Oxford Facility
Chamblee, Georgia

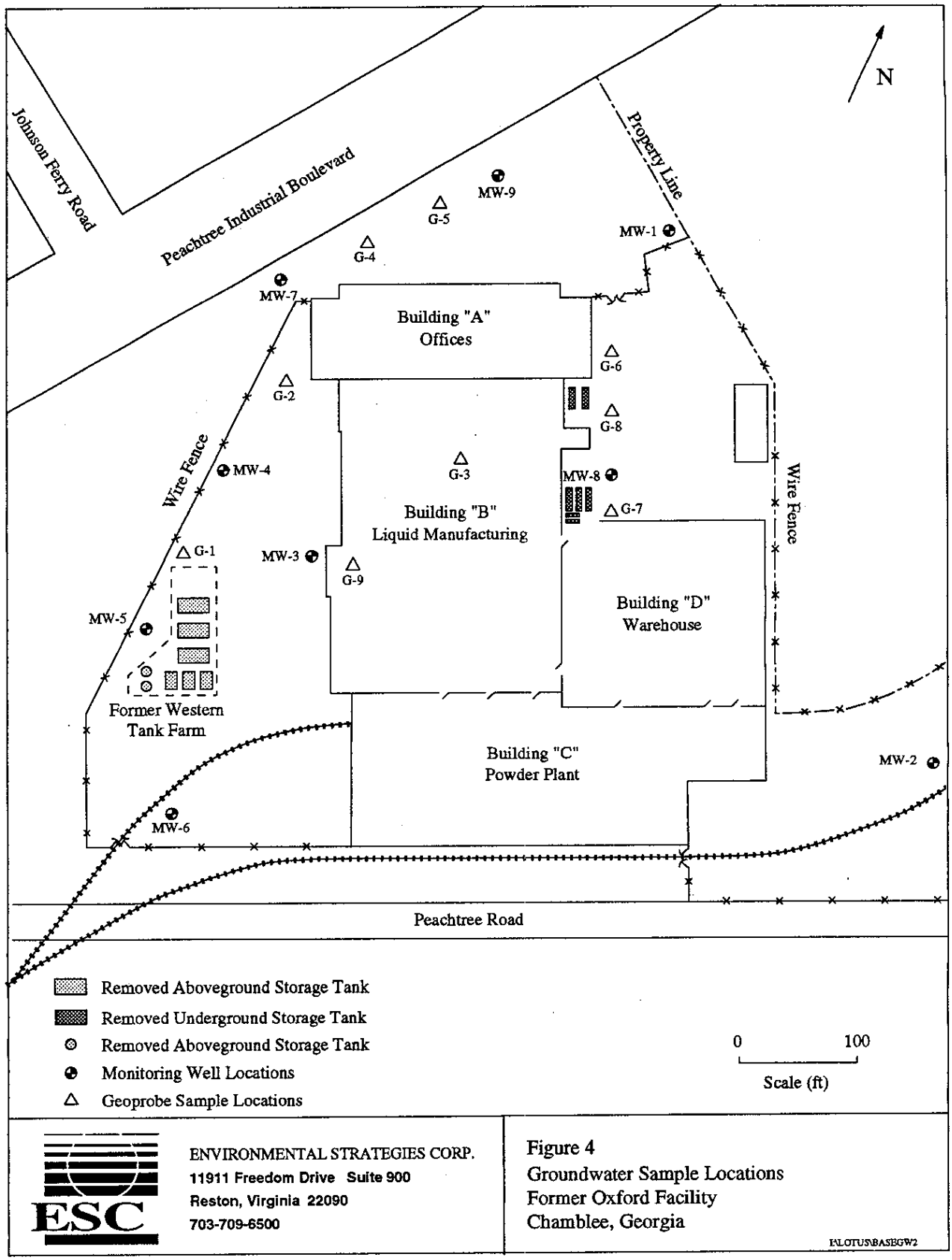
I:\LOTUS\DIVERSEY\CHAM8-1



ENVIRONMENTAL STRATEGIES CORP.
11911 Freedom Drive Suite 900
Reston, Virginia 22090
703-709-6500

Figure 3
Soil Boring Locations
Former Oxford Facility
Chamblee, Georgia

F:\LOTUS\SOILBA2

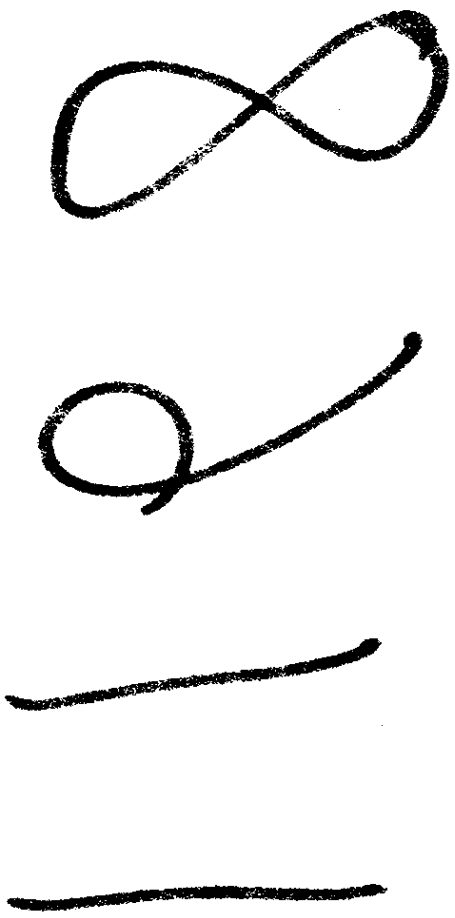


ENVIRONMENTAL STRATEGIES CORP.
11911 Freedom Drive Suite 900
Reston, Virginia 22090
703-709-6500

Figure 4
Groundwater Sample Locations
Former Oxford Facility
Chamblee, Georgia

I:\LOTUS\BASEGW2

1168



PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Acetone

2. CAS Number (see instructions): 67641

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 4.1 mg/kg In Groundwater 140 mg/kg

6. Surface Area of soil affected by this release: Approximately 18,000 S.F.

7. Depth of this release in soil (max./min.): 14 feet - 6 feet

8. Source of this release (i.e. drums, tanks, etc.): Degradation of isopropyl alcohol

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt of asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Benzene

2. CAS Number (see instructions): 71432

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 220 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks underground process lines and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Benzoic acid

2. CAS Number (see instructions): 65850

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 1,200 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 2-Butanone

2. CAS Number (see instructions): 78933

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 15 mg/kg In Groundwater ND

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): 15 feet to 2 feet

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ - From phone call w/ J. Califf 2/8/95 JJB A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☒ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☒ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

#29776

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Carbon disulfide

2. CAS Number (see instructions): 75150

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 2 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Chloroethane

2. CAS Number (see instructions): 75003

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 16 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Chloroform

2. CAS Number (see instructions): 67663

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 1400 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,4-Dichlorobenzene

2. CAS Number (see instructions): 106467

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 63,000 µg/kg In Groundwater 630 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks, underground process lines and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,2-Dichlorobenzene

2. CAS Number (see instructions): 95501

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 28,000 µg/kg In Groundwater 4,000 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks, underground process lines and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,3-Dichlorobenzene

2. CAS Number (see instructions): 541731

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 35,000 µg/kg In Groundwater 200 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks, underground process lines and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,2-Dichloroethane

2. CAS Number (see instructions): 107062

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 26 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,1-Dichloroethane

2. CAS Number (see instructions): 75343

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 410 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,1-Dichloroethene

2. CAS Number (see instructions): 75354

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 240 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Ethylbenzene

2. CAS Number (see instructions): 100414

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 560 µg/kg In Groundwater 180 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

#29776

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Methylene chloride

2. CAS Number (see instructions): 75092

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 5,600 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 4-Methyl-2-pentanone

2. CAS Number (see instructions): 108101

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 4,400 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 4-Methylphenol

2. CAS Number (see instructions): 106445

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 1,400 µg/kg In Groundwater 1,300 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Naphthalene

2. CAS Number (see instructions): 91203

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☐ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) _____

5. Highest Known Concentration (specify units): In Soil 160,000 µg/kg In Groundwater 4,700 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks, underground process lines and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Phenol

2. CAS Number (see instructions): 108952

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 3,200 µg/kg In Groundwater 1,400 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Toluene

2. CAS Number (see instructions): 108883

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 200 mg/kg In Groundwater 95 mg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): 15 feet/1 foot

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks, underground product lines and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Tetrachloroethene

2. CAS Number (see instructions): 127184

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 55 mg/kg In Groundwater 1.7 mg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): 10 feet to 8 feet

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,2,4 Trichlorobenzene

2. CAS Number (see instructions): 120821

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 18 mg/kg In Groundwater 4.1 mg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): 10 feet/8 feet (one sample)

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks, underground process lines and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 1,1,1-Trichloroethane

2. CAS Number (see instructions): 71556

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 1,000 µg/kg In Groundwater 170 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Trichloroethene

2. CAS Number (see instructions): 79016

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 3.0 mg/kg In Groundwater 11.0 mg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): 15 feet - 8 feet

8. Source of this release (i.e. drums, tanks, etc.): Possibly tanks and sewers

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Vinyl chloride

2. CAS Number (see instructions): 75014

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 3.0 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Xylene (total)

2. CAS Number (see instructions): 9330207

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 8,700 µg/kg In Groundwater 1,200 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Unknown Hexachlorobutadiene

2. CAS Number (see instructions): 87683

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [ ] Liquid/gas/sludge
- [X] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 61 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Bis(2-ethylhexyl)phthalate

2. CAS Number (see instructions): 117817

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [ ] Liquid/gas/sludge
- [X] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 2,800 µg/kg In Groundwater 1,200 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Alpha-BHC

2. CAS Number (see instructions): 319846

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [x] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 42 µg/kg In Groundwater 0.66 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [x] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [x] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [x] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [x] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [x] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Beta-BHC

2. CAS Number (see instructions): 319857

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 0.71 µg/kg In Groundwater 0.18 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Aldrin

2. CAS Number (see instructions): 309002

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 0.14 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 4,4-DDD

2. CAS Number (see instructions): 72548

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [x] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 17,000 µg/kg In Groundwater 94.21 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.):Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [x] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [x] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [x] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [x] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [x] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 4,4-DDE

2. CAS Number (see instructions): 72559

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 2,300 µg/kg In Groundwater 14.0 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): 4,4-DDT

2. CAS Number (see instructions): 50293

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil 8,300 µg/kg In Groundwater 260 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Endrin aldehyde

2. CAS Number (see instructions): 7421934

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil ND In Groundwater 0.090 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Arsenic

2. CAS Number (see instructions): 7440382

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil NT In Groundwater 35 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Lindane (gamma-BHC)

2. CAS Number (see instructions): 58899

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil NT In Groundwater 0.070 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Barium

2. CAS Number (see instructions): 7440393

3. Physical State:

- ☐ Solid
- ☐ Powder/Ash
- ☒ Liquid/gas/sludge
- ☐ Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil NT In Groundwater 1,040 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- ☒ Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- ☐ Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- ☐ Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

☐ Less than 0.5 miles	☐ 1 to 2 miles	☒ Greater than 3 miles
☐ 0.5 to 1 mile	☐ 2 to 3 miles	☐ Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

☒ Less than 300 feet	☐ 1001 to 3000 feet	☐ Greater than 1 mile
☐ 301 to 1000 feet	☐ 3001 to 5280 feet	☐ Unknown

13. Has a human been exposed to this release?

- ☐ Yes
- ☐ Suspected
- ☐ No
- ☒ Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- ☒ A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- ☐ An engineered and maintained earthen material or compacted fill of a high density synthetic material
- ☐ Loose earthen fill or native soil
- ☐ No cover
- ☐ Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Beryllium

2. CAS Number (see instructions): 7440417

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [x] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil NT In Groundwater 260 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [x] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [x] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [x] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [x] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [x] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Cadmium

2. CAS Number (see instructions): 7440439

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil NT In Groundwater 2.5 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other

PART II -- RELEASE INFORMATION

Please provide the following for EACH regulated substance release at the site. Complete a separate page for each regulated substance released.

1. Chemical Name (see instructions): Chromium

2. CAS Number (see instructions): 7440473

3. Physical State:

- [ ] Solid
- [ ] Powder/Ash
- [X] Liquid/gas/sludge
- [ ] Unknown

4. Quantity of regulated substance released (lbs., cu., yd., etc.) Unknown

5. Highest Known Concentration (specify units): In Soil NT In Groundwater 40.4 µg/l

6. Surface Area of soil affected by this release: Unknown

7. Depth of this release in soil (max./min.): Unknown

8. Source of this release (i.e. drums, tanks, etc.): Unknown

9. Release Date(s): Unknown

10. Access to the area affected by this release:

- [X] Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.
- [ ] Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.
- [ ] Unlimited Access: No surveillance, and no barrier or fence.

11. What is the distance between the area affected by this release and the nearest drinking water well (including wells on the site)?

- [ ] Less than 0.5 miles
- [ ] 0.5 to 1 mile
- [ ] 1 to 2 miles
- [ ] 2 to 3 miles
- [X] Greater than 3 miles
- [ ] Unknown

12. What is the approximate distance from the edge of the area affected by this release to the nearest residence, playground, day care facility, workplace, school or other regularly occupied building or area?

- [X] Less than 300 feet
- [ ] 301 to 1000 feet
- [ ] 1001 to 3000 feet
- [ ] 3001 to 5280 feet
- [ ] Greater than 1 mile
- [ ] Unknown

13. Has a human been exposed to this release?

- [ ] Yes
- [ ] Suspected
- [ ] No
- [X] Unknown

14. What is the approximate thickness of the cover (if any) over the area affected by this release? 6" asphalt

15. For soil releases, what is the type of material covering this release?

- [X] A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
- [ ] An engineered and maintained earthen material or compacted fill of a high density synthetic material
- [ ] Loose earthen fill or native soil
- [ ] No cover
- [ ] Other _____

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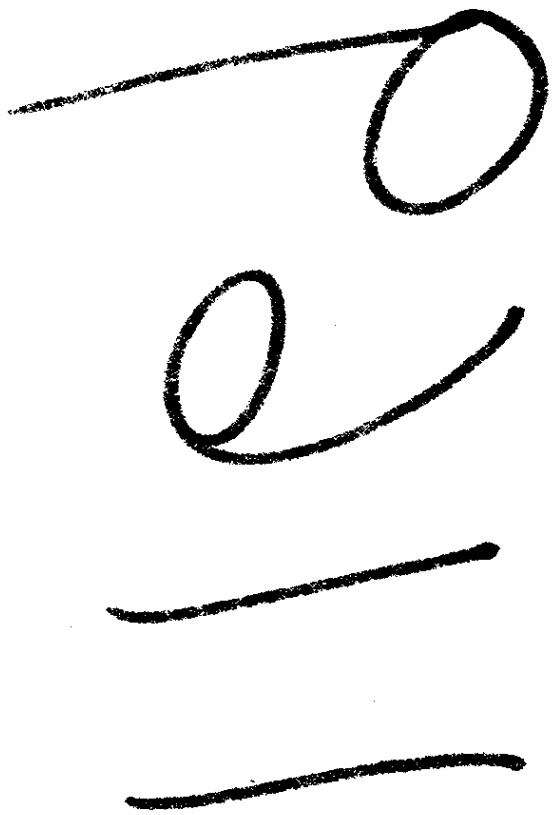

Diversey

Diversey Corp.
12025 Tech Center Dr
Livonia MI 48150-2122

Tel 313 458 5000
Fax 313 458 2586

OFFICE OF THE GENERAL COUNSEL
Mark J. Hanket, Esq.
Vice President, Secretary and General Counsel
David E. Barr, Esq.
Assistant General Counsel
David J. Yodhes, Esq.
Assistant General Counsel

Writer's Direct Dial Number:

(313) 458-3705

VIA AIRBORNE

December 29, 1994

Hazardous Site Response Program
Georgia Environmental Protection Division
Floyd Tower East, Suite 1154
205 Butler Street, SE
Atlanta, Georgia 30334

Re: Release Notification, Former Oxford Chemical Facility, Chamblee, DeKalb County, Georgia

Dear Sir/Madame:

Please find enclosed the subject Release Notification.

Questions concerning the data contained in the Release Notification should be directed to:

Mr. Joseph Califf, P.E., Ph.D.
Environmental Strategies Corporation
11911 Freedom Drive, Suite 900
Reston, Virginia 22090
(703) 709-6500

Sincerely,

Mark J. Hanket

Encl.

cc: J. Califf

Georgia Department of Natural Resources
205 Butler Street, S.E., Suite 1158, Atlanta, Georgia 30334
Joe D. Tanner, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
404/657-8600

March 16, 1995

FILE COPY

Mr. Paul Wojcik
Diversey Corporation
12025 Tech Center Drive
Livonia, Michigan 48150

RE: HSRA notification
Former Oxford Chemical Facility

Dear Mr. Wojcik:

Pursuant to the Rules for Hazardous Site Response, specifically Rule 391-3-19-.05(1) "Listing on the Hazardous Site Inventory," the Environmental Protection Division (EPD) has evaluated the above referenced site to determine whether a release exceeding a reportable quantity has occurred. Based upon the information available to EPD at the time this evaluation was done, including your notification dated December 29, 1994, EPD has no reason to believe that a release exceeding a reportable quantity has occurred at this site. Therefore, this site will not be listed on the Hazardous Site Inventory.

If you become aware of information not provided in the notification that would significantly alter EPD's determination concerning conditions at the site, please provide that updated information to EPD. If this new information indicates that the site has had a release exceeding a reportable quantity, EPD will notify you in writing.

If you have any questions, please call Jim Brown of EPD's Hazardous Sites Response Program at (404) 657-8600.

Sincerely,

Tim Cash
Program Manager
Hazardous Sites Response Program

File: Dekalb County, Former Oxford Chemical Facility

R:\BROWN\VARIOUS\Oxchm_No.hsi

To : Tim Cash

From : Jim Brown

Through: Alex Cleary

NON HSI RECOMMENDATION SUMMARY

Former Oxford Chemical Facility

The Former Oxford Chemical Facility is located at the intersection of Johnson Ferry Road and Peachtree Industrial Boulevard in Chamblee, Dekalb County, Georgia. The facility is a former chemical manufacturing facility that has been closed since 1993. While in operation, the facility manufactured various chemicals ranging from pesticides to drain cleaners. A notification was sent in for this site detailing the results of environmental sampling at the site.

Environmental sampling was performed in association with the facility closure. In the course of this work numerous contaminants were detected in the groundwater and subsurface soils underlying the facility; however the site does not score above the RQSM threshold for either pathway (8.1 ground water/ 19.3 on-site exposure). The nearest ground water user is over 3 miles away, the portion of the site where there is soil contamination is covered with concrete, and the part of the site not covered with concrete is inaccessible. Jay Pease and I visited the site on 3/9/95 to collect samples from the surface soils around the site tank farm, but were unable to get access to this portion of the site.

The facility is currently conducting quarterly groundwater monitoring and "remedial alternatives are currently being evaluated [by the facility] to meet the recently established risk reduction standards" (from the facility notification).

This site is not recommended for listing on the Hazardous Sites Inventory.

R:\brown\various\col_sqr.MEM

HAZARDOUS WASTE MANAGEMENT BRANCH
INTERNAL FILE SURVEY FOR HSRA

NON - HSI

REPORTABLE QUANTITIES SCREENING METHOD

EPA I.D. Number (if applicable)	GAD040674582				
Site or Facility Name	Former Oxford Chemical Facility				
Site Street Address	5001 Peachtree Ind. Blvd.				
Site City	Chamblee	County	Dekalb	ZIP	3034

SCORED BY: Jim Brown DATE: 1/13/95

GROUND WATER PATHWAY SCORE (8.1) GROUND WATER PATHWAY THRESHOLD: 10.0

ON-SITE PATHWAY SCORE (19.3) ON-SITE PATHWAY THRESHOLD: 20.0

LAT [illegible] (84.3152)

LONG [illegible] (84.3152)

IF THE SITE SCORES ABOVE THE THRESHOLD ON EITHER PATHWAY, PROVIDING THE FOLLOWING INFORMATION. ALSO FILL (THE "LIST OF OTHER REGULATED SUBSTANCES AT THE SITE" ON PAGE A-2.

Property Owner	Diversey Corp.				
Property Owner Mailing Address	12025 Tech Center Drive				
Property Owner City	Livonia	State	MI	ZIP	48150
Property Owner Telephone No.	(313) 458-5000				
Site Contact Person	Mr. Joseph Califf	Title			
Company Name	Env. Strategies Corp.				
Site Contact Mailing Address	11911 Freedom Drive, Suite 900				
Site Contact City	Reston	State	VA	ZIP	22090
Site Contact Telephone No.	(703) 709-6500				
Facility Owner/Operator	Paul Wojcik	Title	Former Plant Manager		
Company Name	Diversey Corp.				
Facility Owner/Operator Mailing Address	* Same as above				
Facility Owner/Operator City		State		ZIP	
Facility Owner/Operator Telephone No.					

CLEANUP HISTORY:

[ ] No cleanup has been initiated at this site
[X] Some kind of cleanup is under way
[ ] Cleanup has been completed

SITE LOCATION:

Attach an 8 1/2" by 11" xerox copy of the part of 1:24000 USGS quad sheet that this site appears on, with the site's location clearly marked. Make sure you label the copy with the full name of the quadrangle.

LIST OF OTHER REGULATED SUBSTANCES AT THE SITE

Don't fill out this form unless the site is going on the HSI. Don't list the regulated substance(s) used for RQSM scoring, only the rest o the regulated substances from appendix I that are present at the site. For the "Present in Groundwater" and "Present in Soil" columns, check mark is sufficient -- you don't need to provide quantities and units.

CAS NO.	REGULATED SUBSTANCE	PRESENT IN GROUNDWATER	PRESENT IN SOIL

GROUND WATER

A. HAS A RELEASE TO GROUND WATER OCCURRED?

Known	Suspected	Potential Future
(45)	(10)	(5)

If A=45, then go to D

B. ROUTE CHARACTERISTICS

1b. Susceptibility Rating:

Higher	Average	Lower
(6)	(3)	(0)

2b. Physical State:

Stable Solid	Unstable Solid	Powder, Ash	Liquid, Gas, Sludge
(0)	(1)	(2)	(3)

C. CONTAINMENT

Very Good	Good	Fair	Poor
(0)	(1)	(2)	(3)

D. RELEASE CHARACTERISTICS

1d. Regulated Substance: Vinyl Chloride

2d. Toxicity: None (0) Low (1) (2) (4) (8) (16) High

3d. Quantity (include amount and units): Unknown

Threshold (1) (2) (3) (4) (5) (6) (7) (8) Very Large

E. TARGETS

1e. Exposure to ground water release:

MCL 2 ppb
notify 3 ppb

Known release ≥ MCL, and known human exposure ≥ MCL	(25)
Known release ≥ MCL, and suspected human exposure	(20)
Known release, no MCL exists, and known human exposure	(18)
Known release ≥ MCL, and known human exposure < MCL	(15)
Known release, no MCL exists, and suspected human exposure	(12)
Suspected release and human exposure suspected	(8)
Known release ≥ MCL, but no human exposure suspected	(4)
Known release, no MCL exists, and no human exposure suspected	(3)
Suspected release but no human exposure suspected	(2)
Potential future release	(1)
Known release less than MCL	(0)

(only one choice allowed)

2e. Distance to well or spring (miles)

≤ 1/2	1/2 to 1	1 to 2	2 to 3	≥ 3
(16)	(9)	(4)	(1)	(0)

Taken from GE HSI (#10072) which is next door.

THE GROUND WATER PATHWAY SCORE (S_{gw}) IS CALCULATED AS FOLLOWS:

45 20 4
$$S_{gw} = M \times (2d + 3d) \times (1e + 2e) / 442.8$$

where: $M = A + ((1b + 2b) \times C)$

If A = 45 then M = 45

If 2d is unknown, then 2d = 4
If 3d is unknown, then 3d = 4

If 1e includes known or suspected human exposure, 2e = 16
If 1e = 0 then 2e = 1

Note: The denominator of 442.8 normalizes the ground water score to a value between 0 and 100.

$S_{GW} = 8.1$

A. ACCESS TO SITE: Inaccessible (0) | Limited Access (2) | Unlimited Access (4)

Not a complete fence in area of release

B. HAS THERE BEEN A RELEASE? Yes (25) | Suspected (15) | No (0)

C. CONTAINMENT

	Very Good					Poor
Soil Releases:	(0)	(1)	(2)	(3)	(4)	(5)
or						
Aboveground releases:	(0)	(1)	(2)	(3)		

D. RELEASE CHARACTERISTICS

1d. Regulated Substance: DDT

2d. Toxicity: None (0) Low (1) (2) (4) (8) (16) High

3d. Quantity (include amount and units): Unknown

Threshold (1) (2) (3) (4) (5) (6) (7) (8) Very Large

E. TARGETS

1e. Distance (feet) to nearest resident individual: ≤300 (8) | 301 to 1000 (6) | 1001 to 3000 (4) | 3001 to 5280 (2) | >1 mile (1)

2e. Is there an on-site sensitive environment? Yes (1) | No (0)

THE ON-SITE PATHWAY SCORE (S_o) IS CALCULATED AS FOLLOWS:

$$S_o = A \times (B + C) \times (2d + 3d) \times (1e + 2e)/259.2$$

(2 × (26 + 12) × (8))

$S_o = 19.3$

If A or B = 0, then $S_o = 0$

If 2d is unknown, then 2d = 4
If 3d is unknown, then 3d = 4

Note: The denominator of 259.2 normalizes the score to a value between 0 and 100.

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0511

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, S.E., Suite 1462 East, Atlanta, Georgia 30334-9000
Noel Holcomb, Commissioner
Environmental Protection Division
Carol A. Couch, PhD., Director
404/657-8600

January 29, 2007

FILE COPY

VIA FED EX

Mr. Michael C. Smith, CA
Vice-President, Corporate Projects
Molson, Inc.
1555 Notre Dame Street East
Montreal, Quebec, Canada H2L 2R5

Mr. Donald Hoffman
Arnall Golden Gregory LLP
171 17th Street, NW
Suite 2100
Atlanta, Georgia 30363-1031

Re: Rathon CSR Notice of Deficiencies/CAP Approval
GE Chamblee Apparatus Service Center, HSI # 10072
Chamblee, DeKalb County, Georgia

Dear Mr. Smith and Mr. Hoffman:

The Georgia Environmental Division (EPD) has reviewed the December 1, 2005 corrective action plan (CAP) and the June 12, 2006 compliance status report (CSR) for the Rathon property sublisted as part of the above referenced site. EPD has the following comments:

Risk Reduction Standards:

1) Section 391-3-19-.06 of the Rules for Hazardous Site Response (Rules) requires all regulated substances released at a site or individual property on the Hazardous Site Inventory (HSI) demonstrate compliance with the risk reduction standards of section 391-3-19-.07 of the Rules. Please include all regulated substances detected above the laboratory detection limits at the sublisted Rathon property and compare them to the Risk Reduction Standards (RRS), including Endrin.

2) The method of determining the leachate potential based on Type 1 groundwater RRS (20 times groundwater concentration) is not appropriate. Furthermore, a dilution factor of 20 is only appropriate where the source is less than ½ acre in size, which is not the case at the Rathon/GE site. As required by Sections 391-3-19-.07(7)(c)1 and 391-3-19-.07(9)(d)1 of the Rules, a recognized USEPA laboratory analysis or fate-and-transport model approved by the Director shall be utilized to determine concentration of a soil contaminant that will not cause contamination of the levels exceeding Type 3 or Type 4 groundwater concentration criteria. Please perform the required analysis or modeling and include the results in the screening criteria.

3) EPD noted a discrepancy between the toxicity value for Ethylbenzene in the report and that used by EPD. The Inhalation Slope Factor (Sfi) for Ethylbenzene has been withdrawn and therefore should not be used when calculating a RRS. Please amend Table I-4 accordingly.

4) Please include the values used for the Volatilization Factors (VF) and Particulate Emissions Factor (PEF) in the RRS calculations along with a sample calculation.

Groundwater/Soil:

5) Upon review of the submitted laboratory data sheets, benzene, tetrachloroethylene, trichloroethylene, and vinyl chloride were all analyzed at a laboratory quantitation limit above the proposed RRS for groundwater at the site. Please insure that, for all future groundwater sampling at the Rathon property, the laboratory quantitation limits are at or below the appropriate RRS.

6) For future reports, please provide field data from the low-flow groundwater sampling at the Rathon property. Data should include pump rate, calculated well volume, field analysis measurements (temperature, pH, conductivity, turbidity, etc.), and a total of purged groundwater. [§391-3-19-.06(3)(b)3. of the Rules]

7) Please provide an explanation for horizontal hydraulic gradient at the site. The explanation should include all calculations, a map showing the location of the gradient calculated, and a date for the potentiometric surface map used in the calculation. [§391-3-19-.06(3)(b)3. of the Rules]

8) Please provide an explanation for the hydraulic conductivity value used for the site. The explanation should include data from pumping/slug tests, show calculations and list input values used in the calculations. [§391-3-19-.06(3)(b)3. of the Rules]

9) Pursuant to Sections 391-3-19-.06(3)(b)2. and 3. of the Rules, for each soil boring and monitoring well installed by Rathon, please provide applicable boring logs and monitoring well construction diagrams. Additionally, a detailed description of soil and groundwater sampling procedures is requires for all soil and groundwater samples collected by Rathon. Sampling descriptions should include equipment used, sampling method, laboratory method, copy of chain-of-custody, and copy of the laboratory analytical results. While there are procedures specified in Appendix J of the CAP, it is unclear whether the procedures are Rathon's or GE's and whether those procedures were followed during sample collection.

   Standard Operating Procedures 3 included in Appendix J of the CAP includes a list of materials that are used to accomplish the sampling, specifically 'nylon or polyethylene rope' and a 'bailer (bottom loading)'. Please note that the use of bailers for purging and sampling is discouraged by the November 2001 Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM). Please ensure that all future sampling at the Rathon property complies with EISOPQAM low flow purging and sampling techniques.

10) Please note that wells containing LNAPL should be included on the potentiometric surface map. Instructions on calculating groundwater elevation can be found in Appendix C of USEPA's Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater (Sept 1998)

11) Page 14 of the CAP mentions a 2004 chemical oxidation pilot test performed to the west of the sublisted site. Please provide additional information including the location of the injection points, quantity and type of material injected, groundwater sample results, and a summary of the results of the pilot test.

Tables/Figures:

12) Table 3, 4, and 5 included in the CAP give the results of the soil and groundwater sampling at the Rathon

property. However, these tables use 'ND' to signify when a regulated substance was not detected at or above the laboratory quantitation limit. For ease of review, when a regulated substance has not been found at or above the laboratory quantitation limit, the table shout show '>x' were 'x' is the laboratory quantitation limit. Please ensure all future tables submitted to EPD use this method instead of 'ND'.

13) EPD has noted that only the 1993 soil sample results within the sublisted area were reported in Appendix D of the CSR and laboratory analytical results were not provided.

14) The statement referring to Table 4 and 5 on page 9 of the CAP should reference Tables 3 and 4.

15) Figure 5 in the CAP (north-south cross-section): Monitoring well MW54 should be labeled as MW4.

16) The monitoring well located near the drop inlet to the north of the metal building is sometimes labeled BH7 (Figure 5 of the CAP) and sometimes labeled BH5 (Figure 12 of the CAP). Please review and correct the figures as appropriate.

17) Figures 7, 8, and 9 of the CAP do not show detected concentrations at each well as was done on other isoconcentrations maps in the CAP. Please ensure all future figures show the detected concentration adjacent to each sampled point. Wells not sampled should be depicted with "NS" to denote the well was not sampled.

18) Please provide a date for the data presented in Figure 16 "Historical Extent of LNAPL in Sublisted Area."

19) Pursuant to Section 391-3-19-.06(3)(b)2(iii)of the Rules, please provide a northwest-southeast and east to west vertical cross-sections across the sublisted area. The vertical cross-sections must include soil sampling locations and intervals in the soil column, monitoring well locations and screen intervals, geologic stratigraphy, groundwater level, and concentration of contaminants presented in the sample interval. Please note that Endrin (shallow soil) and PCB 1260 (deep soil) reported in Table 3 of the CAP exceed the notification concentration and that these regulated substances are also detected in groundwater. While Rathon states the tetrachloroethylene (PCE) and PCB in the soil column are due to the light non-aqueous phase liquid (LNAPL), soil remediation may be required to comply with the risk reduction standards.

20) Please provide a top-of-bedrock contour map for the Rathon property.

Proposed Corrective Action:

21) The CAP proposes a combination of Monitored Natural Attenuation (MNA), institutional controls, and groundwater monitoring to bring the site into compliance with the applicable RRS. The CAP proposes that MNA sampling be conducted semiannually or annually. The CAP estimates that long-term monitoring will be required for five (5) years. It also states that Rathon may conduct a pilot test of an enhanced bioremediation technique if MNA sampling shows that the biodegradation process can be enhanced or accelerated. EPD approves the proposed groundwater corrective action plan subject to the following conditions:

a) In order to assess for seasonal changes in groundwater conditions, groundwater samples should be collected quarterly for the first two years, and at least semiannually thereafter.

b) Monitoring wells BH-23 and BH-22 should be added to the MNA groundwater monitoring system.
c) To the extent practicable, Rathon should perform their sampling events simultaneously with GE's sampling events. The 1st quarterly sampling event should occur within ninety (90) days of receipt of this letter unless otherwise approved by EPD to correspond with a GE sampling event.
d) Rathon will install a minimum of one bedrock well adjacent to BH-22 by no later than June 30, 2007 and preferably before the 1st quarterly sampling event.
e) An annual report compiling the sampling events and an evaluation of the effectiveness of the proposed corrective action is to be submitted to EPD within ninety (90) days of completion of the 4th quarterly sampling event and annually thereafter. The 1st annual report must also address all of the comments in this letter except Comment 24.
f) The CAP states the time to achieve compliance with RRS through MNA cannot be determined because the LNAPL emanating from the General Electric (GE) property is a source of the release and without its removal, groundwater will likely not meet RRS. GE included MNA calculations in its December 2005 semi-annual groundwater monitoring report. As such, EPD believes that Rathon can perform the same calculations using an approved fate and transport model for its property in order to develop an estimate as to when the Rathon property will be in compliance with RRS. Therefore, please submit a fate and transport model estimating the length of time to bring the site into compliance with the risk reduction standards. This model should be submitted in the 1st annual MNA report.
g) While institutional controls cannot be used to certify compliance with the Type 1 – 4 RRS, institutional controls could be used as an interim measure until the Rathon property is brought into compliance with the Type 1 – 4 RRS. Please use the language specified in Section 391-3-19-.08 of the Rules.

Compliance Status Report:

22) A CSR should show, to the best extent possible, what contamination is at the site and where this contamination is located now. Please provide maps showing the most recent sampling data from all the wells on the site. Also, please provide a map showing current location and thickness of LNAPL.

23) The CAP indicates that Rathon desires to subdivide the property so that the sublisted property will encompass that area shown in Figure 2. While EPD has previously agreed that Rathon can subdivide the property, EPD does not concur the entire sublisted portion of Rathon's property is encompassed within the area shown on Figure 2. Figure 11 of the CAP shows BH22 with a trichloroethylene concentration of 20 micrograms/liter which exceeds the proposed RRS from Table I-6 of 5 micrograms/liter. Also, Figure 15 shows BH22 with a tetrachloroethylene detection of 109 micrograms/liter which exceeds the proposed RRS of 5 micrograms/liter.

Furthermore, the December 2005 GE sampling report states monitoring well BH-23 contains 5,000 micrograms/liter PCE, denoting that this portion of the site may be the source of the chlorinated solvent contamination on this portion of the Rathon property. If Rathon wishes to show that this contamination is not coming from the Rathon property, all of the site wells, including those on the northern and western portion of the site should be resampled and submitted to EPD for review.

EPD is willing to revisit the proposed sublisted portion of the Rathon property upon review of the additional groundwater monitoring specified in Comment 21.

Information Request:

24) In a letter dated June 30, 2006, EPD requested information regarding groundwater sampling and groundwater monitoring wells on your property. EPD requested this information by no later than July 28, 2006. EPD has not received this requested information:

a) A one to two page summary of soil and groundwater analytical results obtained from your property including a list of the analytical methods/parameters analyzed;
b) A table of soil and groundwater analytical results for the most recently detected substances only;
c) A scaled figure (1"=200' or less) showing the location of existing and abandoned monitoring wells both in hard copy and if available, electronic copy. Please include property lines, property features, and a survey of each well's reference point and the elevation of top-of-casing on the figure;
d) A figure denoting the latest poteniometric groundwater surface;
e) Vertical cross-sections of wells along the direction of groundwater flow including site stratigraphic features;
f) If available, global positioning system (GPS) locations for existing and abandoned wells;
g) Copies of boring logs and well construction logs including soil lithographic units, type of well casing material, well-intake design (including slot size and length), etc.; and
h) A table listing all monitoring wells, elevation of top-of-casing, elevation of bottom of the well, elevation of the screened interval, most recent water table elevation, and date the water table was gauged.

Please submit the information requested in Comment 24 by no later than March 30, 2007. If you have any questions regarding this matter, please call Ms. Kelly Norwood at 404-657-8600.

Sincerely,

Alexandra Y. Cleary
Acting Program Manager
Hazardous Sites Response Program

c: James P. Bulman, ESC
Chuck MacPherson, Peachtree Environmental

File: HSI #10072
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Appendix D
Boring Logs and Well Construction Logs

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-2700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-1
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Robert Banks
ENGINEER Daniel Sandhaus

BORING LOCATION see location Map
GROUND ELEV. 1,021.3
DATE START 12/17/87 DATE END 12/18/87

CASING
SIZE: 6" I.D. H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb.
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/18	6.5'	15'	0 hrs.

DEPTH	CAS. BL./FT.	SAMPLE NO.	PEN./REC.	DEPTH	BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION / CLASSIFICATION	NOTE
	3-1	S-1	24"/19"	8"-2'8"	3/2/2/18	Fill	1" Asphalt and 6" concrete at surface. Orange-red SILT with some fine Sand and Clay, micaceous tree roots, slightly plastic, mixed texture, Fill	HNU 1ppm
5		S-2	24"/15"	4'-6'	1/1/55/16	Saprolite	0-8" Red-brown SILT and CLAY, moderately plastic, moist, tree roots, Fill.	
		S-3	24"/8"	8'-10'	5/4/3/4	Saprolite	8-15" Light tan med-fine SAND, granular, some hard pebbles, moderately dense, Saprolite	3ppm
10		S-4	24"/10'	10-12'	2/3/9/7		Red and White banded, fine SAND and SILT, wet, Saprolite of mica schist	1ppm
							Brown SILT and CLAY, homogeneous, slightly to moderately plastic, wet	1ppm
15		S-5	24"/14"	14'-16'	2/2/2/3		White and black banded, fine SAND and SILT, gneissic texture, Saprolite, soft.	1ppm
							End of Boring at 17'	
							Screen set at 4.5-14.5' below ground surface	

#430

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-2
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Robert Banks
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,030.00
DATE START 12/17/87 DATE END 12/19/87

CASING
SIZE: 6" ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon
HAMMER 140 lb.
FALL: 30"

OTHER:

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/17	18'8"	24'	3.5 hrs.
12/18	16	24'	22 hrs

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/24"	0.5-2.5'	3/4/6/7	Fill	Medium brown & some yellow-brown to tan SILT, some clay, moderately dense, slightly plastic micaceous, saprolitic texture, dry	HNU 1ppm
5		S-2	24"/24"	5'-7'	4/6/7/9	Saprolite	Tan and orange SILT, micaceous, saprolite of K-feldspar + quartz foliated rock, dry medium dense. S-3 is the same, with some white streaks. Soil is wet at 9'	1ppm
		S-3	24"/18"	7-9'	7/8/10/11			1ppm
10							Soil becomes moist at 11'. Water at 13'	
15		S-4	24"/24"	15'-17'	3/4/4/6		0-5" Orange SILT with some fine Sand and Clay slightly plastic, less foliated Saprolite 5-24" light whitish-tan SILT with fine Sand, trace clay, nonplastic Cuttings turn darker at 18'	1ppm
20		S-5	24/19"	20'-22'	4/6/8/10		Brown and white foliated fine SANDS and SILT, granular, micaceous, medium dense, saprolite	
25		S-6	4"/4"	25/25'4"	78 for 4"		Medium brown SILT with some Sand, trace clay, micaceous saprolite, nonplastic	1ppm
							Augered to 28' – Auger Refusal End of Boring at 28'	
							Screen set at 14'-24' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-5700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-3
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Wayne Melvin
ENGINEER Daniel Sandhaus

BORING LOCATION See location map
GROUND ELEV. 1025.30
DATE START 12/22/87 DATE END 12/23/87

CASING
SIZE: 6" ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb.
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/22/87	22' 1"	31'	0 hrs
12/22/87	18' 3"	31'	1 1/4 hrs

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/22"	0'4"-2'4"	3/3/3/4	Fill	1" asphalt; Brown and gray SILT with some clay and Sand, slightly plastic, soft, Fill	HNU 1 ppm
5		S-2	24"/24"	4'-6'	2/2/4/6	Saprolite	0-7" Fill, as above 7-10" Grey GRAVEL and coarse SAND, Some Silt and clay. Perched water in gravel zone 10-24" Red CLAY grading downward into red and yellow fine SAND and SILT, micaceous, Saprolite	50 ppm
10		S-3	24"/18"	9'-11'	3/3/5/8		0-3" Red fine SAND and SILT, mica schist saprolite 3-11" Light yellow-brown, less foliated saprolite, SILT with some clay 11-18" Yellow, white, brown & red foliated mica schist sap. fine SAND and SILT, 1/4" quartz vein @ 16" medium dense	11
15		S-4	24"/17"	14'-16'	3/4/6/8		Reddish-brown fine SAND and SILT, micaceous, mica schist saprolite. Organic odor. medium dense	130
		S-5	18"/18"	16'-17.5'	5/6/6		Water at 18'	
20		S-6	24"/18"	19-21'	2/3/4/6		Tan fine SAND and SILT, nonfoliated saprolite with granitic texture, remnants of quartz, feldspar and muscovite, biotite, wet	10
25		S-7	24"/17"	24'-26'	7/11/15/17		as above, but foliated texture	12
30		S-8	24"/18"	29-31	9/26/47/80		as above, grading to weathered bedrock End of Boring at 31' Screen set at 15-25' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-4
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. _____
FOREMAN _____
ENGINEER _____

BORING LOCATION see location map
GROUND ELEV. 1023.80
DATE START 12/23/87 DATE END 12/23/87

CASING
SIZE: 6" ID H.S. Auger
HAMMER: _____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb.
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/18"	0-2'	0.5/0.5/1/1		0-6" Topsoil, Dark brown organic matter with fine SAND and SILT, some clay	4NU
							6-18" Orangish-brown SILT and fine SAND) some Clay; soft, slightly plastic, moist, Fill	1ppm
						Fill		
5		S-2	24"/15"	4'-6'	1/2/2/2		As above, tree roots, wire, Fill	1ppm
10		S-3	24"/17"	9'-11'	2/3/4/5		Mottled red, yellow and brown SILT, fine SAND and CLAY, micaceous, grading from fill to saprolite moist, soft.	1ppm
						Sapro-lite		
15		S-4	24"/12"	14-16'	3/4/4/4		Red and brown foliated fine SAND and SILT, some Clay, moist, Saprolite of mica schist	13
		S-5	18"/16"	16-17.5'	3/4/4		Same as above, moist, soft	
							water at 19-21'	
20		S-6	24"/18"	19-21'	3/4/5/9		Same as above, organic odor	12
		S-7	24"/19"	21'-23'	4/7/12		0-3" as above 3-19" Gray fine SAND and SILT, remnant feldspar and micas, saprolite of schist, medium dense	
25		S-8	24"/14"	24-26'	5/10/15/20		Same as above, becoming hard, grading into bedrock	35
							Due to heaving sand in auger, drilled to 30' to provide working space for well installation. End of Boring at 30'	
30								
							Screened at 16-26' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-5
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Cleo Ivey
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,027.50
DATE START 1/11/88 DATE END 1/12/88

CASING
SIZE: 2¼" ID H.S. Auger

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER: 140' lb.
FALL: Ry Aker Mark II 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
							On berm around tank farm - fill	HNU
5		S-1	24"/19"	4-6'	2/3/5/7	Fill	0-6" Orange-brown SILT and CLAY, micaceous, slightly plastic, fill 6-19" Mottled orange-brown and yellow-tan SILT with some Clay and trace coarse sand, fill	1ppm
10		S-2	24"/12"	9-11'	2/4/6/9	Saprolite	Sugary white fine SAND, some SILT and Clay, very uniform texture, biotite specks, saprolite, soft to medium dense, slightly plastic.	1ppm
15		S-3	24"/18"	14-16'	5/6/8/10		Same as above, seems to be weathered feldspar primarily, too soft to be quartz.	1ppm
20		S-4	24"/12"	19-21'	5/8/8/13		White fine SAND and SILT, some thin dark Lamellae, saprolite, dry	1ppm
		S-5	24"/12"	21-23'	3/10/20/20		Same as above, becoming hard, wet water at ≈ 21'	
25		S-6	24"/10"	24-26'	8/12/24/34		as above, grayer, hard, mica schist saprolite	
30		S-7	12"/9"	29-30'	40/71/-		Refusal for split spoon End of Boring at 31'. Screen set at 18-28' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-6
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Cleo Ivey
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,023.90
DATE START 1/5/88 DATE END 1/6/88

CASING
SIZE: 6" I.D. H.S. Auger
HAMMER: ____ lb.
FALL: CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb.
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
1/5/88	24'	28'	10 min.
1/5/88	19'	28'	1/2 hr.

DEPTH	CAS. BL. /FT.	SAMPLE NO.	PEN./REC.	DEPTH	BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
						Fill	Broken asphalt at surface, Red fine SAND and SILT in cuttings.	HNU
5		S-1	24"/19"	4-6'	2/2/3/5		Red to orange-yellow fine SAND and SILT, micaceous, grading into deep red mica schist saprolite, soft, nonplastic	1.6 ppm
						Saprolites		
10		S-2	24"/20"	9-11'	3/4/4/5		0-8" Mottled red, orange & yellow fine SAND and SILT, trace clay, slightly plastic, mica schist saprolite soft 8-18" Brown saprolite as above 18-20" Bright red saprolite as above	1.8
15		S-3	24"/18"	14'-16'	4/3/5/7		Bright red fine SAND and SILT, trace Clay, yellow and white lamellae, dark brown mottles, i.e., weathered garnets, mica schist saprolite damp, soft.	2ppm
		S-4	24"/24"	16-18'	3/2/3/5			
20		S-5	24"/16"	19-21'	2/2/3/6		Water at 19' same as above, wet	1ppm
25		S-6	24"/22"	24-26'	2/2/5/8		same as above	2ppm
							End of Boring at 28'	
30							Screen set at 16-26' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-7
Sheet 1 of 1
Date Drilled 10/11/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location See location map
Ground Elevation 1017.00
TOC Elevation 1016.89

Boring
Method Hollow Stem Augers
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 26'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2'
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
0						0-4' Reddish brown silt and clay
1						
2						
3						
4	SS-01	24"/23"	4-6'	10/16/16/21		Mottled reddish-brown to tan-brown clay, trace silt, very dense, dry HNU=0
5						
6						
7						very dry @ 7-9'
8						
9	SS-02	24"/24"	9-11'	7/8/10/14		0-6" Medium brown clay, little silt; 6-24" mottled tan-brown and gray clay, little silt, some angular quartz pebbles, dry. HNU=0
10						
11						
12						
13						
14	SS-03	24"/24"	14-16'	3/5/8/10		Soil damp @ 14' 0-6". clay as above. 6-12" Saprolite of mica schist: fine bands of white, pink, yellow-brown, with dark brown to black streaks and blebs (i.e., weathered mafic minerals). Silt and fine sand. Water @ ≈15'. HNU=0
15						
16						
17						
18						
19	SS-04	24"/18"		5/5/6/12		19-21'- Saprolite, buff silt and fine sand, trace clay, trace coarse quartz sand. HNU=0
20						
21						
22						
23						
24	SS-05	24"/17"		6/7/12/15		24-26'- Saprolite, white and gray silt and fine sand, some yellow-brown and brown-black streaks
25						
26						End of Boring @ 26'
						Installation of MW-7
						Screen set @ 13-23'
						sand pack to 12'
						Bentonite seal 8.4'-12'
						Grout to surface
						Flush mount security casing

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-8
Sheet 1 of 1
Date Drilled 10/12/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location see location map
Ground Elevation 1023.20
TOC Elevation 1022.91

Boring
Method Hollow Stem Auger
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 17'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
1						0-15" Concrete. HNU = 20 ppm beneath concrete. Pesticide odor.
2						
3						
4	SS-01	24"/24"	4-6'	6/7/8/10		Mottled buff, red-brown, and yellow silty clay, some quartz gravel, slightly damp.
5						
6						
7						Water @ 7'
8						
9	SS-02	24"/18"	9-11'	3/3/4/8		Saprolite of mica schist or gneiss, yellowish-white to tan banded at top, reddish-brown to tan banded at bottom, silt and fine sand little clay.
10						
11						
12						
13						
14	SS-03	24"/18"	14-16'	4/3/6/7		Saprolite as above. HNU = 45 ppm
15						
16						
17						End of Boring @ 17'
						Installation of MW-8
						Screen set @ 5-15'
						Sand pack to 4.5'
						Bentonite seal 2.5-4.5'
						Grout to surface
						Flush mount security casing

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-9
Sheet 1 of 1
Date Drilled 10/13/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location see location map
Ground Elevation 1018.70
TOC Elevation 1018.21

Boring
Method Hollow Stem Auger
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 17'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
1						0-2' Topsoil and fill. Dark brown silty soil, rocky. @ 2' - light brown silty soil
2						
3						
4	SS-01	24"/22"	4-6'	7/6/8/9		0-7" - Yellowish-brown silt and clay, moderate plasticity, damp.
5						
6						7-22" - Saprolite of mica schist, banded yellow-brown, red-brown and 1-4 mm dark red blebs (i.e., weathered garnets), silt and clay. HNU=0
7						
8						
9	SS-02	24"/19"	9-11'	4/7/8/13		Same as above
10						
11						
12						
13						
14	SS-03	24"/16"	14-16'	7/8/10/14		same as above
15						
16						
17						

End of Boring @ 17'

Installation of MW-9

Screen set @ 5-15'
Sand pack to 4'
Bentonite seal 2-4'
Grout to Surface
Flush mount security casing

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-1
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Robert Banks
ENGINEER Daniel Sandhaus

BORING LOCATION see location Map
GROUND ELEV. 1,021.3
DATE START 12/17/87 DATE END 12/18/87

CASING
SIZE: 6" I.D. H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb.
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/18	6.5'	15'	0 hrs.

DEPTH	CAS. BL /FT.	SAMPLE NO.	PEN./REC.	DEPTH	BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/19"	8"-2'8"	3/2/2/18	Fill	1" Asphalt and 6" concrete at surface. Orange-red SILT with some fine Sand and Clay, micaceous tree roots, slightly plastic, mixed texture, Fill	HNu 1ppm
5		S-2	24/15"	4'-6'	1/1/55/16		0-8" Red-brown SILT and CLAY, moderately plastic, moist, tree roots, Fill.	
						Saprolite	8-15" Light tan med-fine SAND, granular, some hard pebbles, moderately dense, Saprolite	3ppm
		S-3	24"/8"	8'-10'	5/4/3/4		Red and White banded, fine SAND and SILT, wet, Saprolite of mica schist	1ppm
10		S-4	24"/10'	10-12'	2/3/9/7		Brown SILT and CLAY, homogeneous, slightly to moderately plastic, wet	1ppm
15		S-5	24"/14'	14-16'	2/2/2/3		White and black banded, fine SAND and SILT, gneissic texture, Saprolite, soft.	1ppm
							End of Boring at 17'	
							Screen set at 4.5-14.5' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

F13

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ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-2
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Robert Banks
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,030.00
DATE START 12/17/87 DATE END 12/18/87

CASING
SIZE: 6"ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon
HAMMER 140 lb
FALL: 30"

OTHER:

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/17	18'8"	24'	3.5 hrs.
12/18	16	24'	22 hrs

DEPTH	CAS. BL /FT.	SAMPLE NO.	PEN./REC.	DEPTH	BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/24"	0.5-2.5'	3/4/6/7	Fill	Medium brown & some yellow-brown to tan SILT, some clay, moderately dense, slightly plastic micaceous, saprolitic texture, dry	HW lppm
5		S-2	24"/24"	5'-7'	4/6/7/9	Saprolite	Tan and orange SILT, micaceous, saprolite of K-feldspar + quartz foliated rock, dry medium dense. S-3 is the same, with some white streaks.	lppm
		S-3	24"/18"	7-9'	7/8/10/11			
10							Soil becomes moist at 11'. Water at 13'	
15		S-4	24"/24"	15'-17'	3/4/4/6		0-5" Orange SILT with some fine Sand and Clay slightly plastic, less foliated Saprolite 5-24" light whitish-tan SILT with fine Sand, trace clay, nonplastic Cuttings turn darker at 18'	lppm
20		S-5	24/19"	20'-22'	4/6/8/10		Brown and white foliated fine SAND and SILT, granular, micaceous, medium dense, saprolite	
25		S-6	4"/4"	25/25'4"	78 for 4"		Medium brown SILT with some Sand, trace clay, micaceous saprolite, nonplastic	lppm
							Augered to 28' – Auger Refusal End of Boring at 28'	
							Screen set at 14'-24' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
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ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-3
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Wayne Melvin
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1025.30
DATE START 12/22/87 DATE END 12/23/87

CASING
SIZE: 6" ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/22/87	22' 1"	31'	0 hrs
12/22/87	18' 3"	31'	1 1/4 hrs

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION / CLASSIFICATION	NOTE
		S-1	24"/22"	0'4"-2'4"	3/3/3/4	Fill	1" asphalt; Brown and gray SILT with some clay and Sand, slightly plastic, soft, Fill	HNU 1ppm
5		S-2	24"/24"	4'-6'	2/2/4/6		0-7" Fill, as above 7-10" Gray GRAVEL and coarse SAND, some Silt and Clay Perched water in gravel zone 10-24" Red CLAY grading downward into red and yellow fine SAND and SILT, micaceous, Saprolite	50 ppm
10		S-3	24"/18"	9'-11'	3/3/5/8	Saprolite	0-3" Red fine SAND and SILT, mica schist saprolite 3-11" Light yellow-brown, less foliated saprolite, SILT with some clay 11-18" Yellow, white, brown & Red foliated mica schist sap. fine SAND and SILT, 1/4" quartz vein @ 16" medium dense	11
15		S-4	24"/17"	14'-16'	3/4/6/8		Reddish-brown fine SAND and SILT, micaceous, mica schist saprolite. Organic odor. medium dense	136
		S-5	18"/18"	16'-17.5'	5/6/6		Water at 18'	
20		S-6	24"/18"	19-21"	2/3/4/6		Tan fine SAND and SILT, nonfoliated saprolite with granitic texture, remnants of quartz, feldspar and muscovite, biotite, wet	10
25		S-7	24"/17"	24'-26'	7/11/15/17		as above, but foliated texture	12
30		S-8	24"/18"	29-31	9/25/47/80		as above, grading to weathered bedrock End of Boring at 31' Screened at 15-25' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
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ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-4
SHEET 1 OF 1
DATE 3/1/88 FILE Dinorsey

BORING CO. _____
FOREMAN _____
ENGINEER _____

BORING LOCATION see location map
GROUND ELEV. 1,023.80
DATE START 12/23/87 DATE END 12/23/87

CASING
SIZE: 6" ID H.S. Auger
HAMMER: _____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME

DEPTH	CAS. BL /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/18"	0-2'	0.5/05/1/1	Fill	0-6" Topsoil, Dark brown organic matter with fine SAND and SILT, some clay 6-18" Orangish-brown SILT and fine SAND some Clay, soft, slightly plastic, moist, Fill	4,N 1,pp
5		S-2	24"/15"	4'-6'	1/2/2/2		As above, tree roots, wire, Fill	1,pp
10		S-3	24"/17"	9'-11'	2/3/4/5	Saprolite	Mottled red, yellow and brown SILT, fine SAND, and CLAY, micaceous, grading from fill to saprolite moist, soft.	1,pp
15		S-4	24"/12"	14-16'	3/4/4/4		Red and brown foliated fine SAND and SILT, some Clay, moist, Saprolite of mica schist	13
		S-5	18"/16"	16-17.5'	3/4/4		Same as above, moist, soft water at 19-21'	
20		S-6	24"/18"	19-21'	3/4/5/9		Same as above, organic odor	12
		S-7	24"/19"	21'-23'	4/7/12/-		0-3" as above 3-19" Gray fine SAND and SILT, remnant feldspar and micas, saprolite of schist, medium dense	
25		S-8	24"/14"	24-26'	5/10/15/20		same as above, becoming hard, grading into bedrock	35
30							Due to heaving sand in auger, drilled to 30' to provide working space for well installation. End of Boring at 30'. Screened at 16-26' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-5
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Cleo Ivey
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,027.50
DATE START 1/11/88 DATE END 1/12/88

CASING
SIZE: 2¼" ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig Aker Mark II

SAMPLER
TYPE: Split Spoon
HAMMER 140 lb.
FALL: 30"
OTHER:

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME

DEPTH	CAS. BL /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
							On berm around tank farm - fill	Hnu
						Fill		
5		S-1	24"/19"	4-6'	2/3/5/7		0-6" Orange-brown SILT and CLAY, micaceous, slightly plastic, fill 6-19" Mottled orange-brown and yellow-tan SILT with some Clay and trace coarse sand, fill	1ppm
10		S-2	24"/12"	9-11'	2/4/6/9	Sapro-lite	Sugary white fine SAND, some Silt and Clay, very uniform texture, biotite specks, saprolite, soft to medium dense, slightly plastic.	1ppm
15		S-3	24"/18"	14-16'	5/6/8/10		Same as above, seems to be weathered feldspar primarily, too soft to be quartz.	1ppm
20		S-4	24"/12"	19-21'	5/8/8/13		White fine SAND and SILT, some thin dark Lamellae, saprolite, dry	1ppm
		S-5	24"/12"	21-23'	3/10/20/20		Same as above, becoming hard, wet water at ≈ 21'	
25		S-6	24"/10"	24-26'	8/12/24/34		as above, grayer, hard, mica schist saprolite	
30		S-7	12"/9"	29-30'	40/71/-		Refusal for split spoon End of Boring at 31'.	
							Screen set at 18-28' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
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ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-6
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO Law Engineering
FOREMAN Cleo Ivey
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,023.90
DATE START 1/5/88 DATE END 1/6/88

CASING
SIZE: 6" I.D. H.S. Auger
HAMMER: ____ lb.
FALL: CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
1/5/88	24'	28'	10 min.
1/5/88	19'	28'	1/2 hr.

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
						Fill	Broken asphalt at surface, Red fine SAND and SILT in cuttings.	HNU
5		S-1	24"/19"	4-6'	2/2/3/5		Red to orange-yellow fine SAND and SILT, micaceous, grading into deep red mica schist saprolite, soft, nonplastic	1.6 ppm
						Sapro-lite		
10		S-2	24"/20"	9-11'	3/4/4/5		0-8" Mottled red, orange & yellow fine SAND and SILT, trace clay, slightly plastic, mica schist saprolite soft 8-18" Brown saprolite as above 18-20" Bright red saprolite as above	1.8
15		S-3	24"/18"	14'-16'	4/3/5/7		Bright red fine SAND and SILT, trace Clay, yellow and white lamellae, dark brown mottles, i.e., weathered garnets, mica schist saprolite damp, soft.	2ppm
		S-4	24"/24"	16-18'	3/2/3/5		Water at 19'	
20		S-5	24"/16"	19-21'	2/2/3/6		same as above, wet	1ppm
25		S-6	24"/22"	24-26'	2/2/5/8		same as above.	2ppm
							End of Boring at 28'	
30							Screen set at 16-26' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-7
Sheet 1 of 1
Date Drilled 10/11/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location See location map
Ground Elevation 1017.00
TOC Elevation 1016.89

Boring
Method Hollow Stem Augers
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 26'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2'
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
0						0-4' Reddish brown silt and clay
1						
2						
3						
4	SS-01	24"/23"	4-6'	10/16/16/21		Mottled reddish-brown to tan-brown clay, trace silt, very dense, dry HNU=0
5						
6						
7						very dry @ 7-9'
8						
9	SS-02	24"/24"	9-11'	7/8/10/14		0-6" Medium brown clay, little silt; 6-24" mottled tan-brown and gray clay, little silt, some angular quartz pebbles, dry. HNU=0
10						
11						
12						
13						
14	SS-03	24"/24"	14-16'	3/5/8/10		Soil damp @ 14' 0-6". clay as above. 6-12" Saprolite of mica schist. Fine bands of white, pink, yellow-brown, with dark brown to black streaks and blebs (i.e., weathered mafic minerals). Silt and fine sand. Water @ ≈15'. HNU=0
15						
16						
17						
18						
19	SS-04	24"/18"		5/5/6/12		19-21'- Saprolite, buff silt and fine sand, trace clay, trace coarse quartz sand. HNU=0
20						
21						
22						
23						
24	SS-05	24"/17"		6/7/12/15		24-26'- Saprolite, white and gray silt and fine sand, some yellow-brown and brown-black streaks
25						
26						

End of Boring @ 26'

Installation of MW-7
Screen set @ 13-23'
sand pack to 12'
Bentonite seal 8.4'-12'
Grout to surface
Flush mount security casing

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-8
Sheet 1 of 1
Date Drilled 10/12/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location see location map
Ground Elevation 1023.20
TOC Elevation 1022.91

Boring
Method Hollow Stem Auger
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 17'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
1						0-15" Concrete. HNU = 20 ppm beneath concrete. Pesticide odor.
2						
3						
4	SS-01	24"/24"	4-6'	6/7/8/10		Mottled buff, red-brown, and yellow silty clay, some quartz gravel, slightly damp.
5						
6						
7						Water @ 7'
8						
9	SS-02	24"/18"	9-11'	3/3/4/8		Saprolite of mica schist or gneiss, yellowish-white to tan banded at top, reddish-brown to tan banded at bottom, silt and fine sand little clay.
10						
11						
12						
13						
14	SS-03	24"/18"	14-16'	4/3/6/7		Saprolite as above. HNU = 45 ppm
15						
16						
17						End of Boring @ 17'

Installation of MW-8
Screen set @ 5-15'
Sand pack to 4.5'
Bentonite seal 2.5-4.5'
Grout to surface
Flush mount security casing

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-9
Sheet 1 of 1
Date Drilled 10/13/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location See location map
Ground Elevation 1018.70
TOC Elevation 1018.21

Boring
Method Hollow Stem Auger
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 17'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
1						0-2' Topsoil and fill. Dark brown silty soil, rocky. @ 2' - light brown silty soil
2						
3						
4	SS-01	24"/22"	4-6'	7/6/8/9		0-7" - Yellowish-brown silt and clay, moderate plasticity, damp.
5						
6						
7						7-22" - Saprolite of mica schist, banded yellow-brown, red-brown and 1-4 mm dark red blebs (i.e., weathered garnets), silt and clay. HNU=0
8						
9	SS-02	24"/19"	9-11'	4/7/8/13		Same as above
10						
11						
12						
13						
14	SS-03	24"/16"	14-16'	7/8/10/14		same as above
15						
16						
17						

End of Boring @ 17'

Installation of MW-9

Screen set @ 5-15'
Sand pack to 4'
Bentonite seal 2-4'
Grout to Surface
Flush mount security casing

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-1
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Robert Banks
ENGINEER Daniel Sandhaus

BORING LOCATION see location Map
GROUND ELEV. 1,021.3
DATE START 12/17/87 DATE END 12/18/87

CASING
SIZE: 6" I.D. H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb.
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/18	6.5'	15'	0 hrs.

DEPTH	CAS. BL /FT.	SAMPLE NO.	PEN./REC.	DEPTH	BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/19"	8"-2'8"	3/2/2/18	Fill	1" Asphalt and 6" concrete at surface. Orange-red SILT with some fine Sand and Clay, micaceous tree roots, slightly plastic, mixed texture, Fill	HNu 1ppm
5		S-2	24/15"	4'-6'	1/1/55/16		0-8" Red-brown SILT and CLAY, moderately plastic, moist, tree roots, Fill.	
						Saprolite	8-15" Light tan med-fine SAND, granular, some hard pebbles, moderately dense, Saprolite	3ppm
		S-3	24"/8"	8'-10'	5/4/3/4		Red and White banded, fine SAND and SILT, wet, Saprolite of mica schist	1ppm
10		S-4	24"/10'	10-12'	2/3/9/7		Brown SILT and CLAY, homogeneous, slightly to moderately plastic, wet	1ppm
15		S-5	24"/14'	14-16'	2/2/2/3		White and black banded, fine SAND and SILT, gneissic texture, Saprolite, soft.	1ppm
							End of Boring at 17'	
							Screen set at 4.5-14.5' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

F13

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-2
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Robert Banks
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,030.00
DATE START 12/17/87 DATE END 12/18/87

CASING
SIZE: 6"ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon
HAMMER 140 lb
FALL: 30"

OTHER:

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/17	18'8"	24'	3.5 hrs.
12/18	16	24'	22 hrs

DEPTH	CAS. BL /FT.	SAMPLE NO.	PEN./REC.	DEPTH	BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/24"	0.5-2.5'	3/4/6/7	Fill	Medium brown & some yellow-brown to tan SILT, some clay, moderately dense, slightly plastic micaceous, saprolitic texture, dry	HW lppm
5		S-2	24"/24"	5'-7'	4/6/7/9	Saprolite	Tan and orange SILT, micaceous, saprolite of K-feldspar + quartz foliated rock, dry medium dense. S-3 is the same, with some white streaks.	lppm
		S-3	24"/18"	7-9'	7/8/10/11			
10							Soil becomes moist at 11'. Water at 13'	
15		S-4	24"/24"	15'-17'	3/4/4/6		0-5" Orange SILT with some fine Sand and Clay slightly plastic, less foliated Saprolite 5-24" light whitish-tan SILT with fine Sand, trace clay, nonplastic Cuttings turn darker at 18'	lppm
20		S-5	24/19"	20'-22'	4/6/8/10		Brown and white foliated fine SAND and SILT, granular, micaceous, medium dense, saprolite	
25		S-6	4"/4"	25/25'4"	78 for 4"		Medium brown SILT with some Sand, trace clay, micaceous saprolite, nonplastic	lppm
							Augered to 28' – Auger Refusal End of Boring at 28'	
							Screen set at 14'-24' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

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ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-3
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Wayne Melvin
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1025.30
DATE START 12/22/87 DATE END 12/23/87

CASING
SIZE: 6" ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
12/22/87	22' 1"	31'	0 hrs
12/22/87	18' 3"	31'	1 1/4 hrs

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION / CLASSIFICATION	NOTE
		S-1	24"/22"	0'4"-2'4"	3/3/3/4	Fill	1" asphalt; Brown and gray SILT with some clay and Sand, slightly plastic, soft, Fill	HNU 1ppm
5		S-2	24"/24"	4'-6'	2/2/4/6		0-7" Fill, as above 7-10" Gray GRAVEL and coarse SAND, some Silt and Clay Perched water in gravel zone 10-24" Red CLAY grading downward into red and yellow fine SAND and SILT, micaceous, Saprolite	50 ppm
10		S-3	24"/18"	9'-11'	3/3/5/8	Saprolite	0-3" Red fine SAND and SILT, mica schist saprolite 3-11" Light yellow-brown, less foliated saprolite, SILT with some clay 11-18" Yellow, white, brown & Red foliated mica schist sap. fine SAND and SILT, 1/4" quartz vein @ 16" medium dense	11
15		S-4	24"/17"	14'-16'	3/4/6/8		Reddish-brown fine SAND and SILT, micaceous, mica schist saprolite. Organic odor. medium dense	136
		S-5	18"/18"	16'-17.5'	5/6/6		Water at 18'	
20		S-6	24"/18"	19-21"	2/3/4/6		Tan fine SAND and SILT, nonfoliated saprolite with granitic texture, remnants of quartz, feldspar and muscovite, biotite, wet	10
25		S-7	24"/17"	24'-26'	7/11/15/17		as above, but foliated texture	12
30		S-8	24"/18"	29-31	9/25/47/80		as above, grading to weathered bedrock End of Boring at 31' Screened at 15-25' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-4
SHEET 1 OF 1
DATE 3/1/88 FILE Dinorsey

BORING CO. _____
FOREMAN _____
ENGINEER _____

BORING LOCATION see location map
GROUND ELEV. 1,023.80
DATE START 12/23/87 DATE END 12/23/87

CASING
SIZE: 6" ID H.S. Auger
HAMMER: _____ lb.
FALL: Rig CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME

DEPTH	CAS. BL /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG. and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
		S-1	24"/18"	0-2'	0.5/05/1/1	Fill	0-6" Topsoil, Dark brown organic matter with fine SAND and SILT, some clay 6-18" Orangish-brown SILT and fine SAND some Clay, soft, slightly plastic, moist, Fill	4,N 1,pp
5		S-2	24"/15"	4'-6'	1/2/2/2		As above, tree roots, wire, Fill	1,pp
10		S-3	24"/17"	9'-11'	2/3/4/5	Saprolite	Mottled red, yellow and brown SILT, fine SAND, and CLAY, micaceous, grading from fill to saprolite moist, soft.	1,pp
15		S-4	24"/12"	14-16'	3/4/4/4		Red and brown foliated fine SAND and SILT, some Clay, moist, Saprolite of mica schist	13
		S-5	18"/16"	16-17.5'	3/4/4		Same as above, moist, soft water at 19-21'	
20		S-6	24"/18"	19-21'	3/4/5/9		Same as above, organic odor	12
		S-7	24"/19"	21'-23'	4/7/12/-		0-3" as above 3-19" Gray fine SAND and SILT, remnant feldspar and micas, saprolite of schist, medium dense	
25		S-8	24"/14"	24-26'	5/10/15/20		same as above, becoming hard, grading into bedrock	35
30							Due to heaving sand in auger, drilled to 30' to provide working space for well installation. End of Boring at 30'. Screened at 16-26' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-5
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO. Law Engineering
FOREMAN Cleo Ivey
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,027.50
DATE START 1/11/88 DATE END 1/12/88

CASING
SIZE: 2¼" ID H.S. Auger
HAMMER: ____ lb.
FALL: Rig Aker Mark II

SAMPLER
TYPE: Split Spoon
HAMMER 140 lb.
FALL: 30"
OTHER:

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME

DEPTH	CAS. BL /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
							On berm around tank farm - fill	Hnu
						Fill		
5		S-1	24"/19"	4-6'	2/3/5/7		0-6" Orange-brown SILT and CLAY, micaceous, slightly plastic, fill 6-19" Mottled orange-brown and yellow-tan SILT with some Clay and trace coarse sand, fill	1ppm
10		S-2	24"/12"	9-11'	2/4/6/9	Sapro-lite	Sugary white fine SAND, some Silt and Clay, very uniform texture, biotite specks, saprolite, soft to medium dense, slightly plastic.	1ppm
15		S-3	24"/18"	14-16'	5/6/8/10		Same as above, seems to be weathered feldspar primarily, too soft to be quartz.	1ppm
20		S-4	24"/12"	19-21'	5/8/8/13		White fine SAND and SILT, some thin dark Lamellae, saprolite, dry	1ppm
		S-5	24"/12"	21-23'	3/10/20/20		Same as above, becoming hard, wet water at ≈ 21'	
25		S-6	24"/10"	24-26'	8/12/24/34		as above, grayer, hard, mica schist saprolite	
30		S-7	12"/9"	29-30'	40/71/-		Refusal for split spoon End of Boring at 31'.	
							Screen set at 18-28' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

ESC

ENVIRONMENTAL STRATEGIES CORP
8521 LEESBURG PIKE, SUITE 650
VIENNA, VIRGINIA 22180
703-821-3700

PROJECT: Oxford Chemicals, Chamblee, Georgia

REPORT OF BORING NO. MW-6
SHEET 1 OF 1
DATE 3/1/88 FILE Diversey

BORING CO Law Engineering
FOREMAN Cleo Ivey
ENGINEER Daniel Sandhaus

BORING LOCATION see location map
GROUND ELEV. 1,023.90
DATE START 1/5/88 DATE END 1/6/88

CASING
SIZE: 6" I.D. H.S. Auger
HAMMER: ____ lb.
FALL: CME-55

SAMPLER
TYPE: Split Spoon OTHER:
HAMMER 140 lb
FALL: 30"

GROUNDWATER READINGS

DATE	DEPTH	CASING AT	STABILIZATION TIME
1/5/88	24'	28'	10 min.
1/5/88	19'	28'	1/2 hr.

DEPTH	CAS. BL. /FT.	SAMPLE NO.	SAMPLE PEN./REC.	SAMPLE DEPTH	SAMPLE BLOWS/6"	STRTA CHG and GEN. DESC.	SAMPLE DESCRIPTION CLASSIFICATION	NOTE
						Fill	Broken asphalt at surface, Red fine SAND and SILT in cuttings.	HNU
5		S-1	24"/19"	4-6'	2/2/3/5		Red to orange-yellow fine SAND and SILT, micaceous, grading into deep red mica schist saprolite, soft, nonplastic	1.6 ppm
						Sapro-lite		
10		S-2	24"/20"	9-11'	3/4/4/5		0-8" Mottled red, orange & yellow fine SAND and SILT, trace clay, slightly plastic, mica schist saprolite soft 8-18" Brown saprolite as above 18-20" Bright red saprolite as above	1.8
15		S-3	24"/18"	14'-16'	4/3/5/7		Bright red fine SAND and SILT, trace Clay, yellow and white lamellae, dark brown mottles, i.e., weathered garnets, mica schist saprolite damp, soft.	2ppm
		S-4	24"/24"	16-18'	3/2/3/5		Water at 19'	
20		S-5	24"/16"	19-21'	2/2/3/6		same as above, wet	1ppm
25		S-6	24"/22"	24-26'	2/2/5/8		same as above.	2ppm
							End of Boring at 28'	
30							Screen set at 16-26' below ground surface	

NOTES: 1) THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE IN THE DRILL HOLES AT TIMES AND UNDER CONDITIONS STATED ON THE BORING LOGS. FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-7
Sheet 1 of 1
Date Drilled 10/11/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location See location map
Ground Elevation 1017.00
TOC Elevation 1016.89

Boring
Method Hollow Stem Augers
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 26'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2'
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
0						0-4' Reddish brown silt and clay
1						
2						
3						
4	SS-01	24"/23"	4-6'	10/16/16/21		Mottled reddish-brown to tan-brown clay, trace silt, very dense, dry HNU=0
5						
6						
7						very dry @ 7-9'
8						
9	SS-02	24"/24"	9-11'	7/8/10/14		0-6" Medium brown clay, little silt; 6-24" mottled tan-brown and gray clay, little silt, some angular quartz pebbles, dry. HNU=0
10						
11						
12						
13						
14	SS-03	24"/24"	14-16'	3/5/8/10		Soil damp @ 14' 0-6". clay as above. 6-12" Saprolite of mica schist. Fine bands of white, pink, yellow-brown, with dark brown to black streaks and blebs (i.e., weathered mafic minerals). Silt and fine sand. Water @ ≈15'. HNU=0
15						
16						
17						
18						
19	SS-04	24"/18"		5/5/6/12		19-21'- Saprolite, buff silt and fine sand, trace clay, trace coarse quartz sand. HNU=0
20						
21						
22						
23						
24	SS-05	24"/17"		6/7/12/15		24-26'- Saprolite, white and gray silt and fine sand, some yellow-brown and brown-black streaks
25						
26						

End of Boring @ 26'

Installation of MW-7
Screen set @ 13-23'
sand pack to 12'
Bentonite seal 8.4'-12'
Grout to surface
Flush mount security casing

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-8
Sheet 1 of 1
Date Drilled 10/12/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location see location map
Ground Elevation 1023.20
TOC Elevation 1022.91

Boring
Method Hollow Stem Auger
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 17'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
1						0-15" Concrete. HNU = 20 ppm beneath concrete. Pesticide odor.
2						
3						
4	SS-01	24"/24"	4-6'	6/7/8/10		Mottled buff, red-brown, and yellow silty clay, some quartz gravel, slightly damp.
5						
6						
7						Water @ 7'
8						
9	SS-02	24"/18"	9-11'	3/3/4/8		Saprolite of mica schist or gneiss, yellowish-white to tan banded at top, reddish-brown to tan banded at bottom, silt and fine sand little clay.
10						
11						
12						
13						
14	SS-03	24"/18"	14-16'	4/3/6/7		Saprolite as above. HNU = 45 ppm
15						
16						
17						End of Boring @ 17'

Installation of MW-8
Screen set @ 5-15'
Sand pack to 4.5'
Bentonite seal 2.5-4.5'
Grout to surface
Flush mount security casing

BORING LOG
Environmental Strategies Corporation
8521 Leesburg Pike
Vienna, Virginia 22180

PROJECT
Oxford Chemicals
Chamblee, GA

Boring No. MW-9
Sheet 1 of 1
Date Drilled 10/13/88

Drilling Co. Law Engineering
Driller James Oglesby
ESC Geologist Daniel Sandhaus

Boring Location See location map
Ground Elevation 1018.70
TOC Elevation 1018.21

Boring
Method Hollow Stem Auger
Hole Diameter 10"
Inside Diameter 6.25"
Total Depth 17'

Casing/Screen
Type Schedule 40 PVC
Diameter 4" ID
Screen Length 10'
Screen Slot Size 0.020"

Sampler
Method Split Spoon
Length (ft) 2
Hammer (lbs) 140
Fall (ins) 30

Depth	Sample No.	Pen/Rec	Sample Depth	Blows/6"	Well Design	Sample Description
1						0-2' Topsoil and fill. Dark brown silty soil, rocky. @ 2' - light brown silty soil
2						
3						
4	SS-01	24"/22"	4-6'	7/6/8/9		0-7" - Yellowish-brown silt and clay, moderate plasticity, damp.
5						
6						
7						7-22" - Saprolite of mica schist, banded yellow-brown, red-brown and 1-4 mm dark red blebs (i.e., weathered garnets), silt and clay. HNU=0
8						
9	SS-02	24"/19"	9-11'	4/7/8/13		Same as above
10						
11						
12						
13						
14	SS-03	24"/16"	14-16'	7/8/10/14		same as above
15						
16						
17						

End of Boring @ 17'

Installation of MW-9

Screen set @ 5-15'
Sand pack to 4'
Bentonite seal 2-4'
Grout to Surface
Flush mount security casing

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-1 Sheet 1 of 21 Date Drilled 5-10-93

Drilling Co. ATEC Associates	Boring Location West Tank Farm Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 14.5	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5	11.3	24/24	0.5-2.5	3-3-2-2	ML	Reddish-brown to dark brown SILT and CLAY
1.0						with some fine sand
1.5						
2.0						
2.5	795	8/24	2.5-4.5	2-2-3-6	ML	SAME AS ABOVE (slight odor)
3.0						
3.5						
4.0						
4.5	2,350	24/24	4.5-6.5	3-4-6-7	SM	Reddish-brown to dark brown fine SAND and
5.0						SILT with some clay, foliated micaceous
5.5						saprolite (strong odor)
6.0						
6.5	2,260	24/24	6.5-8.5	1-6-7-6	SM	Light grey fine SAND and SILT, less
7.0						foliated saprolite (strong odor)
7.5						
8.0						
8.5	1,890	24/24	8.5-10.5	3-3-5-5	SM	SAME AS ABOVE
9.0						
9.5						
10.0						
10.5	2,320	24/24	10.5-12.5	1-2-4-5	SM	Light grey fine SAND and SILT, banded
11.0						green fine to medium sand, micaceous
11.5						saprolite (strong odor)
12.0						
12.5	>2,500	24/24	12.5-14.5	3-4-3-4	SM	SAME AS ABOVE
13.0						(Wet @ 14.5)
13.5						BORING TERMINATED AT 14.5
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-2
Sheet 2 of 21
Date Drilled 5-10-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location West Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 15.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	146	24/24	3.0-5.0	3-4-5-6	ML	Reddish-tan fine SAND and SILT with some
3.5						clay
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	745	24/24	8.0-10.0	4-4-5-7	ML	(8'-9') Dark red SILT and CLAY, micaceous
8.5						saprolite
9.0					SM	(9'-10') Grey fine SAND and SILT,
9.5						micaceous saprolite (slight odor)
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	>2,500	24/24	13.0-15.0	5-7-8-15	SM	(13'-14') SAME AS ABOVE
13.5					ML	(14'-15') Reddish-tan SILT and CLAY
14.0						with trace fine sand, foliated micaceous
14.5						saprolite (strong odor)
15.0						(Wet @ 14.5)
						BORING TERMINATED AT 15.0

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-3 Sheet 3 of 21 Date Drilled 5-10-93

Drilling Co. ATEC Associates	Boring Location West Tank Farm Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 15.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	45.1	24/24	3.0-5.0	3-4-4-6	SM	Reddish-brown fine SAND and SILT
3.5						with trace clay, foliated micaceous
4.0						saprolite
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	48.2	24/24	8.0-10.0	7-7-7-7	SM	SAME AS ABOVE
8.5						
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	14.5	24/24	13.0-15.0	4-3-5-9	SM	SAME AS ABOVE
13.5						(Wet @ 13.0)
14.0						BORING TERMINATED AT 15.0
14.5						
15.0						

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-4 Sheet 4 of 21 Date Drilled 5-10-93

Drilling Co. ATEC Associates	Boring Location West Tank Farm Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 10.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	9.3	18/24	3.0-5.0	4-4-4-6	SM	Light tan to grey fine SAND and SILT
3.5						with trace clay, micaceous saprolite
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	20.8	24/24	8.0-10.0	4-5-6-7	CL	Light brown SILT and CLAY with some
8.5						fine to medium sand, foliated saprolite
9.0						(Wet @ 10.0)
9.5						BORING TERMINATED AT 10.0
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-5
Sheet 5 of 21
Date Drilled 5-10-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location West Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 15.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	749	24/24	3.0-5.0	3-7-4-8	SC	Reddish-brown SILT, SAND and CLAY
3.5						with some gravel (saturated w/ product)
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	2,250	24/24	8.0-10.0	3-3-5-8	SM	Reddish-brown fine SAND and SILT
8.5						with some clay, foliated micaceous
9.0						saprolite (saturated w/ product)
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	2,330	24/24	13.0-15.0	4-4-5-7	SM	SAME AS ABOVE
13.5						(Wet @ 14.25)
14.0						BORING TERMINATED AT 15.0
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-6
Sheet 6 of 21
Date Drilled 5-10-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location West Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 15.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	12.0	8/24	3.0-5.0	4-3-5-4	CL	Dark brown SILT and CLAY with some
3.5						gravel
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	20.1	24/24	8.0-10.0	5-3-5-6	ML	(8.0'-8.5') SAME AS ABOVE
8.5					ML	(8.5'-10.0') Reddish-brown SILT and CLAY,
9.0						foliated saprolite
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	49.0	24/24	13.0-15.0	5-3-5-5	SM	Reddish-brown fine SAND and SILT with
13.5						some clay, foliated micaceous saprolite
14.0						(Wet @ 14.5)
14.5						BORING TERMINATED AT 15.0
15.0						

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-7 Sheet 7 of 21 Date Drilled 5-10-93

Drilling Co. ATEC Associates	Boring Location West Tank Farm Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 15.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	10.6	24/24	3.0-5.0	5-6-4-7	SM	Dark brown fine to medium SAND and SILT
3.5						with some clay
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	16.0	24/24	8.0-10.0	5-6-7-10	CL	Dark brown SILT and CLAY with trace
8.5						gravel
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	35.0	24/24	13.0-15.0	3-3-4-5	SM	Reddish brown fine SAND and SILT with
13.5						trace clay, foliated saprolite
14.0						(Wet @ 14.0)
14.5						BORING TERMINATED AT 15.0
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-8
Sheet 8 of 21
Date Drilled 5-11-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location West Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 15.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	240	24/24	3.0-5.0	3-6-8-12	SM	Reddish-brown fine SAND and SILT with
3.5						some clay, micaceous saprolite
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	270	24/24	8.0-10.0	5-5-5-6	SM	Light tan to sugary white fine SAND and
8.5						SILT, foliated micaceous saprolite
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	>2,500	24/24	13.0-15.0	4-6-6-9	SM	SAME AS ABOVE (strong odor)
13.5						(Wet @ 15.0)
14.0						BORING TERMINATED AT 15.0
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-9
Sheet 9 of 21
Date Drilled 5-11-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location East Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 10.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	180	24/24	3.0-5.0	10-5-4-6	SM	Light tan fine SAND and SILT with some
3.5						clay
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	680	18/24	8.0-10.0	6-3-2-4	SM	(8'-9') SAME AS ABOVE
8.5					SM	(9'-10') Light tan to sugary white fine
9.0						SAND and SILT, micaceous saprolite
9.5						(Wet @ 9.5)
10.0						BORING TERMINATED AT 10.0
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
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PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-10
Sheet 10 of 21
Date Drilled 5-11-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location East Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 10.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	>2,500	24/24	3.0-5.0	3-3-2-3	CL	Dark brown SILT and CLAY with trace
3.5						gravel (strong odor)
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	>2,500	24/24	8.0-10.0	6-3-2-4	SM	Light brown fine SAND and SILT with
8.5						trace clay (strong odor)
9.0						(Wet @ 9.5)
9.5						BORING TERMINATED AT 10.0
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-11 Sheet 11 of 21 Date Drilled 5-11-93

Drilling Co. ATEC Associates	Boring Location East Tank Farm Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 5.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	202	24/24	3.0-5.0	3-3-4-4	ML	Dark brown SILT and CLAY with some fine
3.5						to medium sand
4.0						(Wet @ 5.0)
4.5						BORING TERMINATED AT 5.0
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-12
Sheet 12 of 21
Date Drilled 5-11-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location East Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 5.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	17.7	24/24	3.0-5.0	3-4-4-4	SM	Dark brown to dark grey fine SAND and
3.5						SILT with some clay
4.0						(Wet @ 4.5)
4.5						BORING TERMINATED AT 5.0
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
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PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-13
Sheet 13 of 21
Date Drilled 5-11-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location East Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 10.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	4.9	24/24	3.0-5.0	7-3-3-4	ML	Reddish-tan SILT and CLAY with trace
3.5						fine sand
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	5.1	24/24	8.0-10.0	7-5-5-10	ML	SAME AS ABOVE
8.5						(Wet @ 9.5)
9.0						BORING TERMINATED 10.0
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-14
Sheet 14 of 21
Date Drilled 5-11-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location East Tank Farm Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 10.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	6.0	24/24	3.0-5.0	3-3-3-3	ML	Dark red to dark tan SILT and CLAY with
3.5						trace fine sand, micaceous saprolite
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	6.5	24/24	8.0-10.0	4-5-3-7	ML	SAME AS ABOVE
8.5						(Wet @ 9.5)
9.0						BORING TERMINATED AT 10.0
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-15 Sheet 15 of 21 Date Drilled 5-12-93

Drilling Co. ATEC Associates Driller Bo Price ESC Geologist Scott Haitz	Boring Location Plant Area Ground Elevation TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger Hole Diameter 6.25 Inside Diameter 2.25 Total Depth 15.0	Type N/A Diameter N/A Screen Length N/A Screen Slot Size N/A	Method Split-spoon Length (ft) 2.0 Hammer (lb) 140 Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	>2,500	24/24	3.0-5.0	2-2-3-4	CL	Brown to tan SILT and CLAY (strong odor)
3.5						
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	>2,500	24/24	8.0-10.0	4-4-5-4	SM	Light tan fine SAND and SILT with some
8.5						clay (strong odor)
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	>2,500	24/24	13.0-15.0	4-5-7-9	SM	Reddish-yellow fine SAND and SILT with
13.5						some clay, foliated micaceous saprolite
14.0						(Wet @ 14.0)
14.5						BORING TERMINATED AT 15.0
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-16
Sheet 16 of 21
Date Drilled 5-12-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location Plant Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 15.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	385	24/24	3.0-5.0	4-5-9-12	CL	Light tan SILT and CLAY
3.5						
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	895	24/24	8.0-10.0	5-5-6-9	SM	Light tan SILT with some fine sand and
8.5						trace clay, micaceous saprolite
9.0						(slight odor)
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	1,198	24/24	13.0-15.0	3-4-6-8	SM	(13'-14') SAME AS ABOVE (strong odor)
13.5					SM	(14'-15') Sugary-white to tan fine SAND
14.0						and SILT, foliated micaceous saprolite
14.5						(Wet @ 13.5)
15.0						BORING TERMINATED AT 15.0

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-17 Sheet 17 of 21 Date Drilled 5-12-93

Drilling Co. ATEC Associates	Boring Location Plant Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 15.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	152	24/24	3.0-5.0	4-6-7-14	SM	Light tan to reddish SILT and fine SAND
3.5						with some clay, micaceous saprolite
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	160	24/24	8.0-10.0	5-4-4-6	SM	(8.0'-8.5') SAME AS ABOVE
8.5					SM	(8.5'-10.0') Light tan to sugary white
9.0						fine SAND and SILT with some clay,
9.5						micaceous saprolite
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	172	24/24	13.0-15.0	5-5-7-10	SM	(13'-14') SAME AS ABOVE
13.5					SM	(14'-15') Sugary white banded fine SAND
14.0						and SILT, foliated micaceous saprolite
14.5						(Wet @ 14.5)
15.0						BORING TERMINATED AT 15.0

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-18 Sheet 18 of 21 Date Drilled 5-12-93

Drilling Co. ATEC Associates	Boring Location Plant Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 15.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	193	24/24	3.0-5.0	7-9-9-10	SM	Tan to brown fine SAND and SILT with
3.5						some clay
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	246	18/24	8.0-10.0	8-6-6-8	SM	SAME AS ABOVE
8.5						
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	455	18/24	13.0-15.0	4-3-3-6	SM	Light tan to reddish fine SAND and SILT
13.5						with some clay, foliated micaceous
14.0						saprolite
14.5						(Wet @ 15.0)
15.0						BORING TERMINATED AT 15.0

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-19 Sheet 19 of 21 Date Drilled 5-12-93

Drilling Co. ATEC Associates	Boring Location Plant Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 15.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	374	24/24	3.0-5.0	3-3-5-7	CL	Reddish to light brown SILT and CLAY
3.5						
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	1,180	24/24	8.0-10.0	4-6-5-5	CL	Reddish brown SILT and CLAY
8.5						(strong odor)
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	1,180	24/24	13.0-15.0	5-4-4-5	ML	Reddish-brown SILT and CLAY with trace
13.5						fine sand, banded micaceous saprolite
14.0						(Wet @ 14.5) (strong odor)
14.5						BORING TERMINATED AT 15.0
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. B-20
Sheet 20 of 21
Date Drilled 5-12-93

Drilling Co. ATEC Associates
Driller Bo Price
ESC Geologist Scott Haitz

Boring Location Plant Area
Ground Elevation
TOC Elevation

Boring
Method Hollow Stem Auger
Hole Diameter 6.25
Inside Diameter 2.25
Total Depth 15.0

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Split-spoon
Length (ft) 2.0
Hammer (lb) 140
Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	35.0	18/24	3.0-5.0	7-6-5-5	CL	Reddish-brown SILT and CLAY, micaceous
3.5						saprolite
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	75.0	20/24	8.0-10.0	8-7-7-9	CL	SAME AS ABOVE
8.5						
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	78.0	24/24	13.0-15.0	5-7-7-8	CL	SAME AS ABOVE
13.5						(Wet @ 13.5)
14.0						BORING TEMINATED AT 15.0
14.5						
15.0						

BORING LOG Environmental Strategies Corporation 11911 Freedom Drive Reston, Virginia 22090	PROJECT Diversey-Chamblee Former Oxford Chemical Project # 1403.06	Boring No. B-21 Sheet 21 of 21 Date Drilled 5-12-93

Drilling Co. ATEC Associates	Boring Location Plant Area
Driller Bo Price	Ground Elevation
ESC Geologist Scott Haitz	TOC Elevation

Boring	Casing/Screen	Sampler
Method Hollow Stem Auger	Type N/A	Method Split-spoon
Hole Diameter 6.25	Diameter N/A	Length (ft) 2.0
Inside Diameter 2.25	Screen Length N/A	Hammer (lb) 140
Total Depth 15.0	Screen Slot Size N/A	Fall (in) 30

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5						
1.0						
1.5						
2.0						
2.5						
3.0	25.0	12/24	3.0-5.0	5-7-7-10	CL	Brown to tan SILT and CLAY
3.5						
4.0						
4,5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0	39.0	24/24	8.0-10.0	4-6-7-9	SM	Reddish-brown fine SAND and SILT with
8.5						some clay, micaceous saprolite
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0	40.0	24/24	13.0-15.0	3-5-5-8	SM	SAME AS ABOVE
13.5						(Wet @ 14.5)
14.0						BORING TERMINATED AT 15.0
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. H-1
Sheet 1 of 1
Date Drilled 5-10-93

Drilling Co. _____
Driller _____
ESC Geologist Joseph Califf

Boring Location West Tank Farm Area
Ground Elevation _____
TOC Elevation _____

Boring
Method Hand Auger
Hole Diameter 2"
Inside Diameter _____
Total Depth 22"

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Bucket Auger
Length (ft) 6"
Hammer (lb) _____
Fall (in) _____

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5	2.2	------	0-22"	------	SM	Tan to brown fine SAND and SILT with
1.0						trace gravel (No Odor)
1.5						
2.0						Refusal @ 22"
2.5						
3.0						
3.5						
4.0						
4.5						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. H-2
Sheet 1 of 1
Date Drilled 5-10-93

Drilling Co. _____
Driller _____
ESC Geologist Joseph Califf

Boring Location West Tank Farm Area
Ground Elevation _____
TOC Elevation _____

Boring
Method Hand Auger
Hole Diameter 2"
Inside Diameter _____
Total Depth 9.8'

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Bucket Auger
Length (ft) 6"
Hammer (lb) _____
Fall (in) _____

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5	803	------	0-0.5	------	ML	Grey-brown SILT with some clay and
1.0						trace fine sand (strong odor)
1.5	558	------	1.5-1.8	------	SM	Grey-tan SILT and SAND mottled red-
2.0						brown clay (strong odor)
2.5						
3.0	758	------	3.0-3.3	------	SM	Grey-tan SILT with some fine sand
3.5						(odor)
4.0	216	------	4.0-4.3	------	SM	SAME AS ABOVE with trace gravel
4.5						(odor)
5.0						
5.5						
6.0	77.1	------	6.0-6.3	------	ML	Grey SILT, mottled tan and orange clay,
6.5						trace sand (odor)
7.0						
7.5						
8.0	286	------	8.0-8.3	------	ML	Tan-grey SILT with mottled pink clay
8.5						
9.0						
9.5	370	------	9.5-9.8	------	ML	SAME AS ABOVE
10.0						
10.5						BORING TERMINATED AT 9.8'
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. H-3
Sheet 1 of 1
Date Drilled 5-10-93

Drilling Co. _____
Driller _____
ESC Geologist Joseph Califf

Boring Location West Tank Farm Area
Ground Elevation _____
TOC Elevation _____

Boring
Method Hand Auger
Hole Diameter 2"
Inside Diameter _____
Total Depth 22"

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Bucket Auger
Length (ft) 6"
Hammer (lb) _____
Fall (in) _____

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5	1.3	------	0-0.5	------	ML	Red-tan SILT and CLAY with trace sand
1.0						(moist)
1.5						
2.0	99.3	------	2.0-2.5	------	ML	Blackish-brown SILT and CLAY
2.5						(strong odor)
3.0						
3.5	141	------	3.5-4.0	------	ML	2"- Black SILT and CLAY
4.0					GP	2"- Black GRAVEL with some sand (odor)
4.5					ML	1"- Sugary white SILT (saprolite)
5.0						
5.5						
6.0	8.5	------	5.8-6.2	------	ML	White-tan SILT with trace clay
6.5						(slight odor)
7.0						
7.5						BORING TERMINATED AT 8.3'
8.0						
8.5						
9.0						
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

BORING LOG
Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 22090

PROJECT
Diversey-Chamblee
Former Oxford Chemical
Project # 1403.06

Boring No. H-4
Sheet 1 of 1
Date Drilled 5-10-93

Drilling Co. _____
Driller _____
ESC Geologist Joseph Califf

Boring Location West Tank Farm Area
Ground Elevation _____
TOC Elevation _____

Boring
Method Hand Auger
Hole Diameter 2"
Inside Diameter _____
Total Depth 8.3

Casing/Screen
Type N/A
Diameter N/A
Screen Length N/A
Screen Slot Size N/A

Sampler
Method Bucket Auger
Length (ft) 6"
Hammer (lb) _____
Fall (in) _____

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	USCS	Sample Description
0.5	7.5	------	0-0.5	------	SM	1"- Topsoil
1.0						4"- Tan-brown trace gravel (slight Odor)
1.5						
2.0	125	------	2.0-2.5	------	ML	Black-brown CLAY and SILT with trace
2.5						coarse sand (petro odor)
3.0						3.0 - begin sugary white SILT (saprolite)
3.5						
4.0	474	------	4.0-4.3	------	ML	Tan to brwn SILT
4.5						
5.0						
5.5						
6.0	70.8	------	6.0-6.3	------	ML	Reddish-brown SILT and CLAY (sight odor)
6.5						
7.0						
7.5						
8.0	20.7	------	8.0-8.3	------	ML	Reddish tan SILT
8.5						
9.0						BORING TERMINATED AT 8.3
9.5						
10.0						
10.5						
11.0						
11.5						
12.0						
12.5						
13.0						
13.5						
14.0						
14.5						
15.0						

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BORING/WELL CONSTRUCTION LO

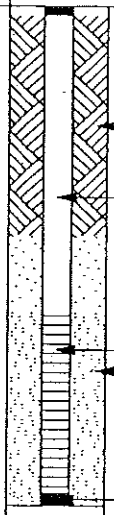
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.74
TOP OF CASING 1023.72
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-2
DATE DRILLED 8/31/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
	3	12	SS 1					FILL sampled as Sandy Clay, brownish-red/white, soft, micaceous, moist	
	5	24	SS. 2						1018.7
						SM		SILTY SAND, brown/tan/gray, loose, fine grained, moist	1017.7
	9	24	SS 3		5	SP		SAND, dark gray, fine grained sand, trace of silt, moist	1016.7
	10	24	SS 4					SANDY SILT, brown/orange/red, fine grained sand, trace of clay, slightly micaceous, moist, oily sheen/odor	
	14	12	SS 5		10	ML			1008.6

WELL DIAGRAM



BORING_WELL_GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DCM GROUP

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BORING/WELL CONSTRUCTION LO

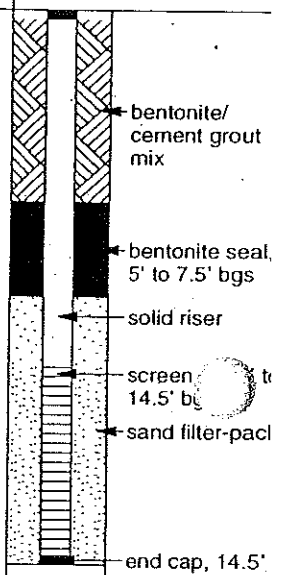
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.64
TOP OF CASING 1021.64
LOGGED BY W. Melvin

BORING/WELL NUMBER BH-6
DATE DRILLED 8/31/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.010" slot
GRAVEL PACK TYPE Silica Sand
GROUT TYPE/QUANTITY 3/8" CETGO Pellets
DEPTH TO WATER 11.76
GROUND WATER ELEVATION 1009.88

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE, slab	1021.1
								FILL, with slab subbase	
	5	NA	SS 1						
	10	18	SS 2					SANDY SILT, brown/reddish brown, fine grained, organics, moist	1018.6
	15	18	SS 3		5	ML			
	15	18	SS 4			SM		SILTY SAND, red/yellow, fine grained sand, chemical odor, moist	1015.6
	20	18	SS 5					SAND, red/yellow/gray, very fine sand, moist	1014.1
	25	12	SS 6		10				
	25	15	SS 7			SP			
	26	16	SS 8					wet at 12.5 feet bgs	1007.1

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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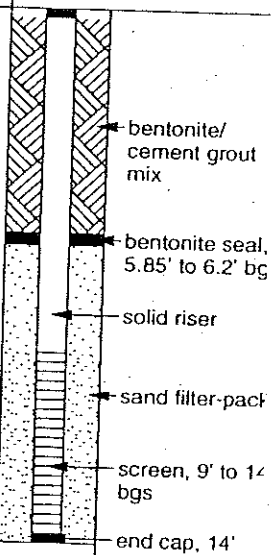
BORING/WELL CONSTRUCTION LO

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1020.77
TOP OF CASING 1020.67
LOGGED BY J. Oglesby
REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

BORING/WELL NUMBER BH-7
DATE DRILLED 8/31/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6/10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
	5	24	SS 1			ML		SANDY SILT, red/orange/tan, fine grained, organics, moist	
	9	12	SS 2					SILT, red/orange/brown/gray, trace of fine grained sand and clay, moist	1018.8
	11	18	SS 3		5	ML		trace organics at 4 feet bgs petroleum odor at 5 feet bgs	
	12	24	SS 4						
	13	24	SS 5						
	18	24	SS 6		10	ML		SANDY SILT, gray/orange/tan, fine grained, petroleum odor, moist	1011.8
	21	24	SS 7					wet at 13 feet bgs	
								Boring was terminated at a depth of 14 feet bgs	1006.8

WELL DIAGRAM



BORING_WELL_GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LO

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.19
TOP OF CASING 1021.78
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-8
DATE DRILLED 8/31/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6/10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER 13.00
GROUND WATER ELEVATION 1008.19

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
	10	24	SS 1			ML		SILT, orange/brown/red, firm, with sand	1019.2
	15	24	SS 2			ML		SANDY SILT, orange/grey/tan, stiff	
	17	24	SS 3		5			trace of organics at 3.5 feet bgs	
	18	24	SS 4			SM		SILTY SAND,orange, firm	1014.7
	18	20	SS 5			MH		CLAYEY SILT, grey/tan, very stiff	1013.2
	23	24	SS 6		10	SM		SILTY SAND,grey/tan, firm to very firm	1011.2
	39	24	SS 7					water encountered at approximately 13 feet bgs ▼	1006.7

WELL DIAGRAM

- bentonite/ cement grout mix
- bentonite seal, 6' to 7.25' bgs
- solid riser
- sand filter-pack
- screen, 9.5' to 14.5' bgs
- end cap, 14.5' bgs

BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LO

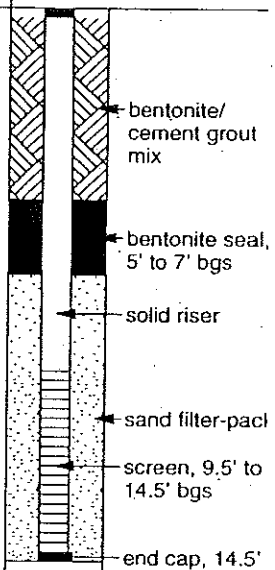
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.49
TOP OF CASING 1022.04
LOGGED BY W. Melvin

BORING/WELL NUMBER BH-9
DATE DRILLED 8/31/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.010" slot
GRAVEL PACK TYPE Silica Sand
GROUT TYPE/QUANTITY 3/8" CETGO Pellets
DEPTH TO WATER 13.84
GROUND WATER ELEVATION 1007.65

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								ASPHALT, with subbase	1020.5
	6	12	SS 1			SM		SITLY SAND, brown, loose, fine grained	
	10	18	SS 2						
	17	18	SS 3		5	ML		SILT, firm, grayish brown, trace of sand and clay	1017.5
	21	18	SS 4			SP		SAND, gray/brown, fine grained	1016.0
	16	18	SS 5			ML		SILT, stiff, mottled red and gray	1014.5
	18	18	SS 6					SAND; firm to very firm, red/brown, fine grained, moist to wet	1013.5
	21	12	SS 7		10	SP			
	23	18	SS 8						1007.0

WELL DIAGRAM



BORING_WELL_GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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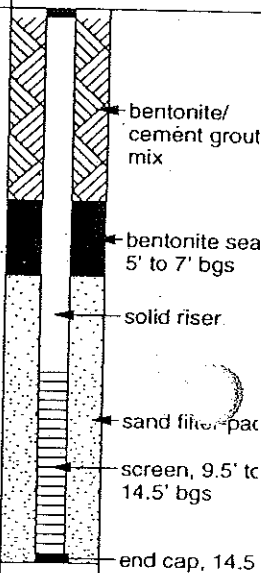
BORING/WELL CONSTRUCTION L(

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.75
TOP OF CASING 1022.71
LOGGED BY W. Melvin
REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

BORING/WELL NUMBER BH-10
DATE DRILLED 9/1/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.010" slot
GRAVEL PACK TYPE Silica Sand
GROUT TYPE/QUANTITY 3/8" CETGO Pellets
DEPTH TO WATER 11.29
GROUND WATER ELEVATION 1010.46

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE slab, with subbase	1020.8
	7	3	SS 1			ML		SANDY SILT, firm, brown, moist, no odor	1019.3
	5	8	SS 2			ML		SILT, mottled red and brown, firm	1017.8
	19	12	SS 3		5	SP		SAND, gray, very fine grained, no odor grades with trace of silt	
	16	18	SS 4						1014.8
	28	6	SS 5			ML		SANDY SILT, mottled red/gray/brown, firm, very fine grained	
	22	0	SS 6						1011.8
	23	12	SS 7		10	SP		SAND, red, grades to mottled red/white/gray, firm, very fine grained, slight odor ▼	
	32	12	SS 8						1007.3

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LO

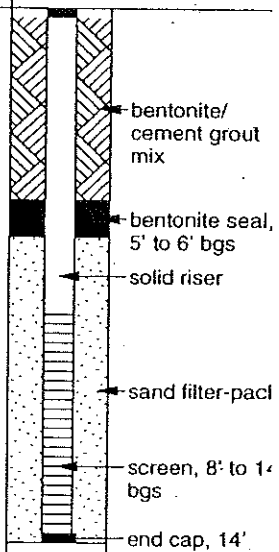
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.44
TOP OF CASING 1022.5
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-11
DATE DRILLED 9/1/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	DEPTH (ft. BGL)	U.S.C.S.	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
	6	18	SS 1		SM	SILTY SAND, loose, grey/brown/tan, with trace of asphalt	
	13	24	SS 2			grades to brown/red, loose grades to tan/brown/red, loose grades to tan/red/orange, loose	1017.4
	12	24	SS 3	5	ML	SANDY SILT,tan/orange/red, stiff, fine grained	1015.9
					SP	SAND, grey, loose, trace of silt	1015.4
	20	24	SS 4		SM	SILTY SAND, firm, grey, trace of clay	1013.4
	24	24	SS 5		ML	SANDY SILT, grey/orange, very stiff	1011.4
	29	24	SS 6	10	SP	SAND, grey/orange/tan, very firm, with some silt	1009.4
	35	24	SS 7		ML	SANDY SILT,grey/tan/orange, very stiff, wet with a trace of oily product	1007.4

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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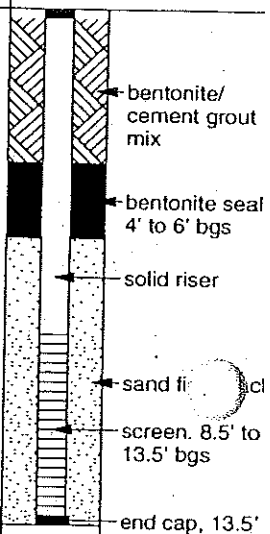
BORING/WELL CONSTRUCTION LO

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1020.33
TOP OF CASING 1022.13
LOGGED BY W. Melvin
REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

BORING/WELL NUMBER BH-12
DATE DRILLED 9/1/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.010" slot
GRAVEL PACK TYPE Silica Sand
GROUT TYPE/QUANTITY 3/8" CETGO Pellets
DEPTH TO WATER 12.77
GROUND WATER ELEVATION 1007.56

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
	4	6	SS 1			SM		SILTY SAND, reddish brown, loose, very fine grained, no odor	1019.8
	4	3	SS 2			ML		SANDY SILT, mottled red/gray, soft, very fine grained, no odor	1018.3
	5	12	SS 3			ML		SILT, reddish brown, firm, with a trace of fine sand, no odor	1016.8
	5	12	SS 4		5	SM		SILTY SAND, reddish brown, loose, very fine grained, no odor	1015.3
	4	12	SS 5			SP		SAND, red, loose, soft	1013.8
	5	12	SS 6			ML		SANDY SILT, mottled brown/gray, soft, very fine grained	1012.8
	8	18	SS 7		10	ML		SILT, brown/gray, firm	1011.8
						SP		SAND, brown/gray, loose, wet, fine grained	1010.8
	9	18	SS 8			ML		SILT, brown/gray/purple, stiff, with fine sand ▼	1008.3
									1006.8

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LO

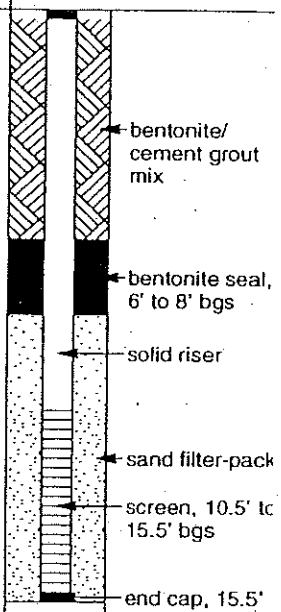
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1022.05
TOP OF CASING 1022.11
LOGGED BY W. Melvin

BORING/WELL NUMBER BH-13
DATE DRILLED 9/1/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.010" slot
GRAVEL PACK TYPE Silica Sand
GROUT TYPE/QUANTITY 3/8" CETGO Pellets
DEPTH TO WATER 9.83
GROUND WATER ELEVATION 1012.22

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE slab, with subbase	1021.1
	9	12	SS 1			ML		SANDY SILT, brown, stiff, very fine grained, moist, no odor	1019.6
	18	12	SS 2			SP		SAND, yellow, firm, fine grained	
	29	12	SS 3		5			grades to very firm, pale yellow	
	28	12	SS 4					grades to white, micaceous fine sand layered with pale yellow fine sand	
	25	18	SS 5						
	18	12	SS 6						
	19	18	SS 7		10				
	20	18	SS 8					white, firm, micaceous, wet, fine grained	
	19	18	SS 9		15				1006.6

WELL DIAGRAM



BORING_WELL_GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LO

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.60
TOP OF CASING 1023.6
LOGGED BY W. Melvin
REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

BORING/WELL NUMBER BH-14
DATE DRILLED 9/1/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.010" slot
GRAVEL PACK TYPE Silica Sand
GROUT TYPE/QUANTITY 3/8" CETGO Pellets
DEPTH TO WATER 12.24
GROUND WATER ELEVATION 1009.36

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)	WELL DIAGRAM
									1020.6	bentonite/ cement grout mix
					5	ML		SANDY SILT, brown, very fine grained grades to gray very fine sandy silt		bentonite seal 4.5' to 6.5' bgs
	10	12	SS 1						1013.6	solid riser
					10	ML		SILT, brown, stiff, with trace of very fine sand, moist, no odor		sand filter pac
	9	18	SS 2			ML		SANDY SILT, reddish brown/black, stiff, very fine grained, organic odor	1010.6 1010.1	screen, 9.5' to 14.5' bgs
						SP		SAND, yellowish brown/gray, very fine, wet	1007.1	end cap, 14.5' bgs

BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DCM GROUP

DAMES & MOORE

A DAMES & MOORE GROUP COMPANY

BORING/WELL CONSTRUCTION LO

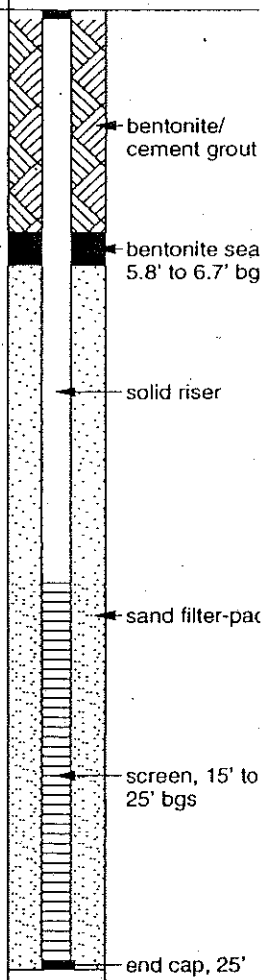
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.55
TOP OF CASING 1022.85
LOGGED BY W. Melvin

BORING/WELL NUMBER BH-15
DATE DRILLED 12/21/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE slab	1021.1
						MH		SANDY CLAYEY SILT, brownish red	1017.6
	3	18	SS 1		5			SANDY SILT, orange/red/gray	
	9	6	SS 2					grades to brown/red, wet, fine grained	
	4	24	SS 3		10				
	6	24	SS 4					tan/grey, soft, fine grained	
	3	24	SS 5		15	ML		white/gray/tan, soft, wet	
	5	24	SS 6						
	15	24	SS 7					brown streaks, 17.5' to 18'	
	9	24	SS 8		20			grades white/gray, firm	
	17	24	SS 9						
					25				996.6

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DCM GROUP

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BORING/WELL CONSTRUCTION LO

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.00
TOP OF CASING 1022.40
LOGGED BY W. Melvin

BORING/WELL NUMBER BH-16
DATE DRILLED 12/21/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE slab	
								FILL, sandy silty clay, red/orange/brown	1020.5
	7	24	SS 1						
	7	24	SS 2		5				
	8	24	SS 3					SANDY SILT,gray/white, hard, some black organics	1015.0
	8	20	SS 4			ML			
	4	24	SS 5		10			CLAYEY SILT, orange	1011.0
						MH			
	6	24	SS 6					SANDY SILT,gray, fine grained	1009.0
	4	24	SS 7		15			grades orange	
	8	24	SS 8					grades tan/orange to gray, inreasing moisture	
	14	24	SS 9			ML		grades orange, wet, fine grained, with a trace of mica	
	13	24	SS 10		20			grades red, with brown/black streaks	
	11	24	SS 11					grades brown/tan/gray, micaceous	
								brown organics	
					25				996.0

WELL DIAGRAM

- bentonite/ cement grout
- bentonite sea 4.75' to 7.0' b
- solid riser
- screen, 15' to 25' bgs
- sand filter-pac
- end cap, 25' bgs

BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LC

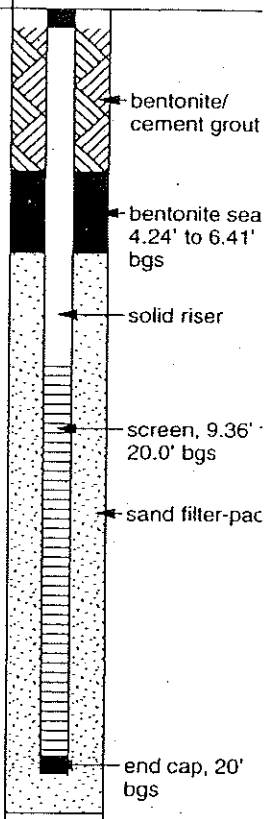
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.11
TOP OF CASING 1022.06
LOGGED BY W. Melvin

BORING/WELL NUMBER BH-17
DATE DRILLED 12/21/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE slab	1020.6
								TOPSOIL, sandy silt, brown/red	
									1017.1
	5	24	SS 1		5			SANDY SILT, brown/orange/red, soft, fine grained, trace of mica	
	12	24	SS 2						
	8	18	SS 3					grades gray/tan, firm, micaceous	
	5	24	SS 4		10			grades orange/brown, micaceous	
	6	24	SS 5			ML		grades gray/tan/white, fine, micaceous	
	4	24	SS 6		15				
	10	24	SS 7					dark streaky material	
	10	24	SS 8					grades tan/orange/white/gray, fine, with dark streaky material	
					20				1001.1

WELL DIAGRAM



BORING_WELL_GEPOWER.GPJ_DM_ATLNT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LC

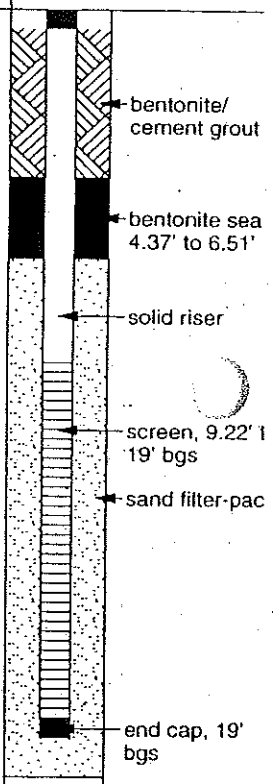
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1020.94
TOP OF CASING 1022.08
LOGGED BY W. Melvin

BORING/WELL NUMBER BH-18
DATE DRILLED 12/21/94
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE, slab	1020.4
						ML		SILT, red/orange/brown, some gravel	1018.9
	5	24	SS 1					SANDY SILT, brown/orange/tan/red, fine grained, micaceous	
	5	24	SS 2		5			clear rock with black organic material	
	NA	24	SS 3					grades orange	
	5	24	SS 4					grades gray/tan/orange, micaceous	
	3	24	SS 5		10	ML			
	5	24	SS 6						
	9	24	SS 7		15			trace of black organic material	
	8	24	SS 8					grades tan/orange/white, wet	
	18	24	SS 9					dark organic streaky material	1001.9

WELL DIAGRAM



BORING_WELL_GEPOWER.GPJ DM_ATL.NT.GDT 12/13/01

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BORING/WELL CONSTRUCTION LO

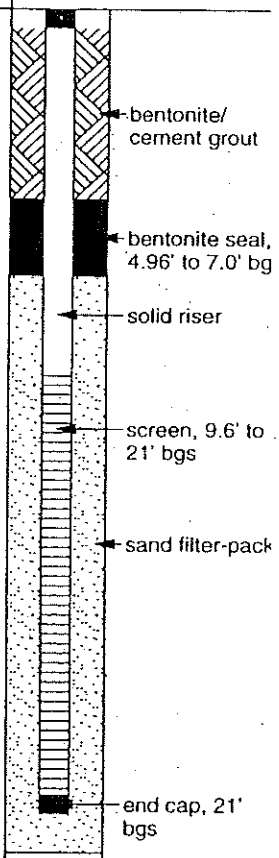
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.40
TOP OF CASING 1022.29
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-19
DATE DRILLED 1/25/95
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
								CONCRETE slab, with gravel base	1020.4
								SANDY SILT, orange/red/tan	
					5				
								grades black/brown, micaceous	
					10	ML		grades tan, micaceous, moist	
					15				
					20			tan, micaceous, moist; drill cuttings do not appear oily	1000.4

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DAMES & MOORE
GROUP A DAMES & MOORE GROUP COMPANY

BORING/WELL CONSTRUCTION LC

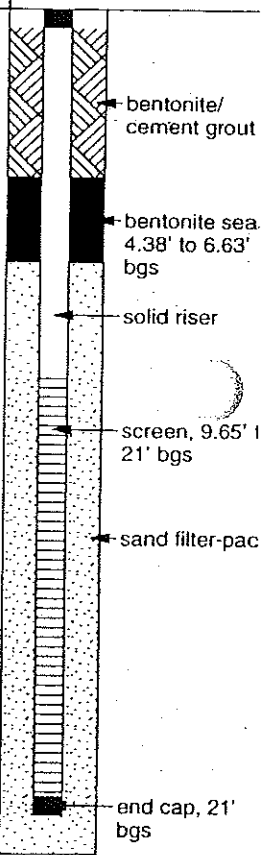
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.62
TOP OF CASING 1022.45
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-20
DATE DRILLED 1/25/95
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
					0			CONCRETE slab, with gravel base	1020.6
								SANDY SILT, orange/red/tan, fine grained	
								grades orange/tan/white/pink, with a trace of mica	
								grades brown/gray, wet	
					5				
					10	ML		grades gray, moist, with a trace of mica	
					15			grades tan,moist	
					20				1000.6

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DCM GROUP

DAMES & MOORE

A DAMES & MOORE GROUP COMPANY

BORING/WELL CONSTRUCTION LO

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.85
TOP OF CASING 1023.35
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-21
DATE DRILLED 1/25/95
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)	WELL DIAGRAM
								CONCRETE slab, with gravel base	1021.1	bentonite/ cement grout
								SANDY SILT, red/pink/orange/tan, fine grained		
								grades black/dark		bentonite seal 3.54' to 5.58' bgs
					5			grades orange/pink/tan/red		solid riser
					10	ML		grades tan, moist		screen, 8.98' t 21' bgs
					15			tan/gray, moist		sand filter-pacl
					20	MH		CLAYEY SILT, orange	1001.9 1000.9	end cap, 21' bgs

BORING_WELL_GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DAMES & MOORE
GROUP
A DAMES & MOORE GROUP COMPANY

BORING/WELL CONSTRUCTION LC

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1022.06
TOP OF CASING 1022.91
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-22
DATE DRILLED 1/25/95
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)	WELL DIAGRAM
								CONCRETE slab, with gravel base	1021.1	
								SANDY SILT, tan/gray		
								grades black, strong odor		bentonite/ cement grout
					5			gray/brown, strong odor		bentonite sea 4.93' to 6.98' bgs
										solid riser
					10	ML		grades tan/brown/orange		screen, 9.65' 21' bgs
										sand filter-pac
					15			grades red/orange/pink, with mica		
					20				1001.1	end cap, 21' bgs

BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DAMES & MOORE
GROUP
A DAMES & MOORE GROUP COMPANY

BORING/WELL CONSTRUCTION LO

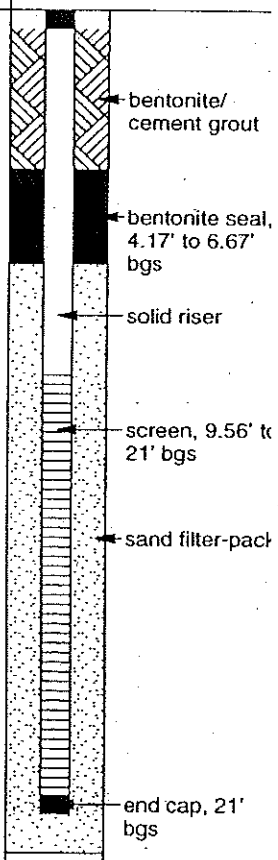
PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.28
TOP OF CASING 1022.22
LOGGED BY J. Oglesby

BORING/WELL NUMBER BH-23
DATE DRILLED 1/25/95
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)
					0			CONCRETE slab, with gravel base	1020.3
						ML		SANDY SILT, red/brown/orange	
								grades tan/black	
					5			grades tan	
					10				
					15			grades brown/tan, with odor	
					20			gray, moist, with a trace of clay and mica, some odor	1000.3

WELL DIAGRAM



BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

DCM GROUP

DAMES & MOORE

A DAMES & MOORE GROUP COMPANY

BORING/WELL CONSTRUCTION LC

PROJECT NUMBER 42368-575
PROJECT NAME General Electric Company - Apparatus Service Center
LOCATION Chamblee, Georgia
DRILLING METHOD Hollow Stem Auger
SAMPLING METHOD Split Spoon
GROUND ELEVATION 1021.17
TOP OF CASING 1022.63
LOGGED BY J. Oglesby
REMARKS ALL BLOW COUNTS LISTED BELOW ARE FOR THE LAST 1.0 FT OF THE SAMPLING INTERVAL (BLOWS/FT)

BORING/WELL NUMBER BH-24
DATE DRILLED 1/26/95
CASING TYPE/DIAMETER 2" dia. SCH. 40 PVC
SCREEN TYPE/SLOT 2" SCH. 40 PVC, 0.020" slot
GRAVEL PACK TYPE 6-10
GROUT TYPE/QUANTITY Pellets
DEPTH TO WATER
GROUND WATER ELEVATION

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	INTERVAL	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	ELEVATION (feet)	WELL DIAGRAM
					0			CONCRETE slab, with gravel base		
								SANDY SILT, brown	1020.2	
					5					bentonite/ cement grout mix
										bentonite seal 4.46' to 6.33' bgs
								grades orange/tan/brown		solid riser
					10	ML		grades tan/brown, moist		screen, 9.05' t 21' bgs
					15					sand filter-pacl
					20			grades tan/gray, moist	1000.2	end cap, 21' bgs

BORING_WELL GEPOWER.GPJ DM_ATLNT.GDT 12/13/01

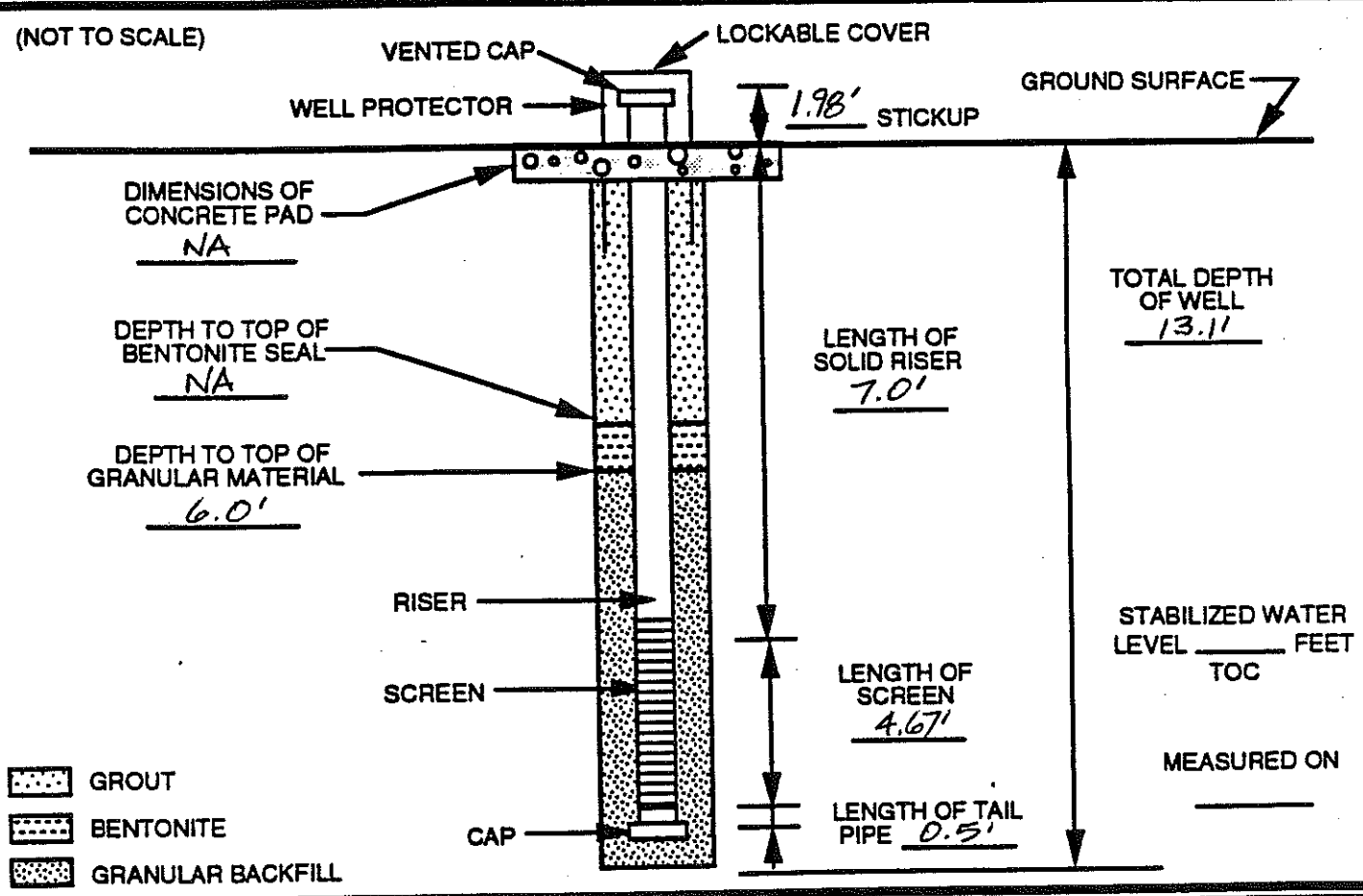
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

WELL NO. BH-2 JOB NO. 41-154507
JOB NAME GE CHAMBLEE
DATE 8/31/94 TIME
WELL LOCATION

GROUND SURFACE ELEVATION 1021.74'
TOP OF SCREEN ELEVATION 1014.74
REFERENCE POINT ELEVATION (TOC) 1023.72
TYPE SAND PACK 6-10 GRADATION
SAND PACK MANUFACTURER
SCREEN MATERIAL SCH. 40 PVC
MANUFACTURER
RISER MATERIAL SCH. 40 PVC
MANUFACTURER
RISER DIAMETER 2"
DRILLING TECHNIQUE (above casing) HOLLOW STEM AUGER
BIT SIZE AND TYPE 8"
DRILLING TECHNIQUE (below casing)
BIT SIZE AND TYPE

BENTONITE TYPE
MANUFACTURER
CEMENT TYPE
MANUFACTURER
BOREHOLE DIAMETER 8"
SCREEN DIAMETER 2" SLOT SIZE 0.02"
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE ALBERT SACCHETTA
DRILLING CONTRACTOR LAW ENGINEERING
AMOUNT BENTONITE USED
AMOUNT CEMENT USED
AMOUNT SAND USED
STATIC WATER DEPTH (after dev.)



INSTALLED BY: J. OGLESBY INSTALLATION OBSERVED BY: ALBERT SACCHETTA
DISCREPANCIES:

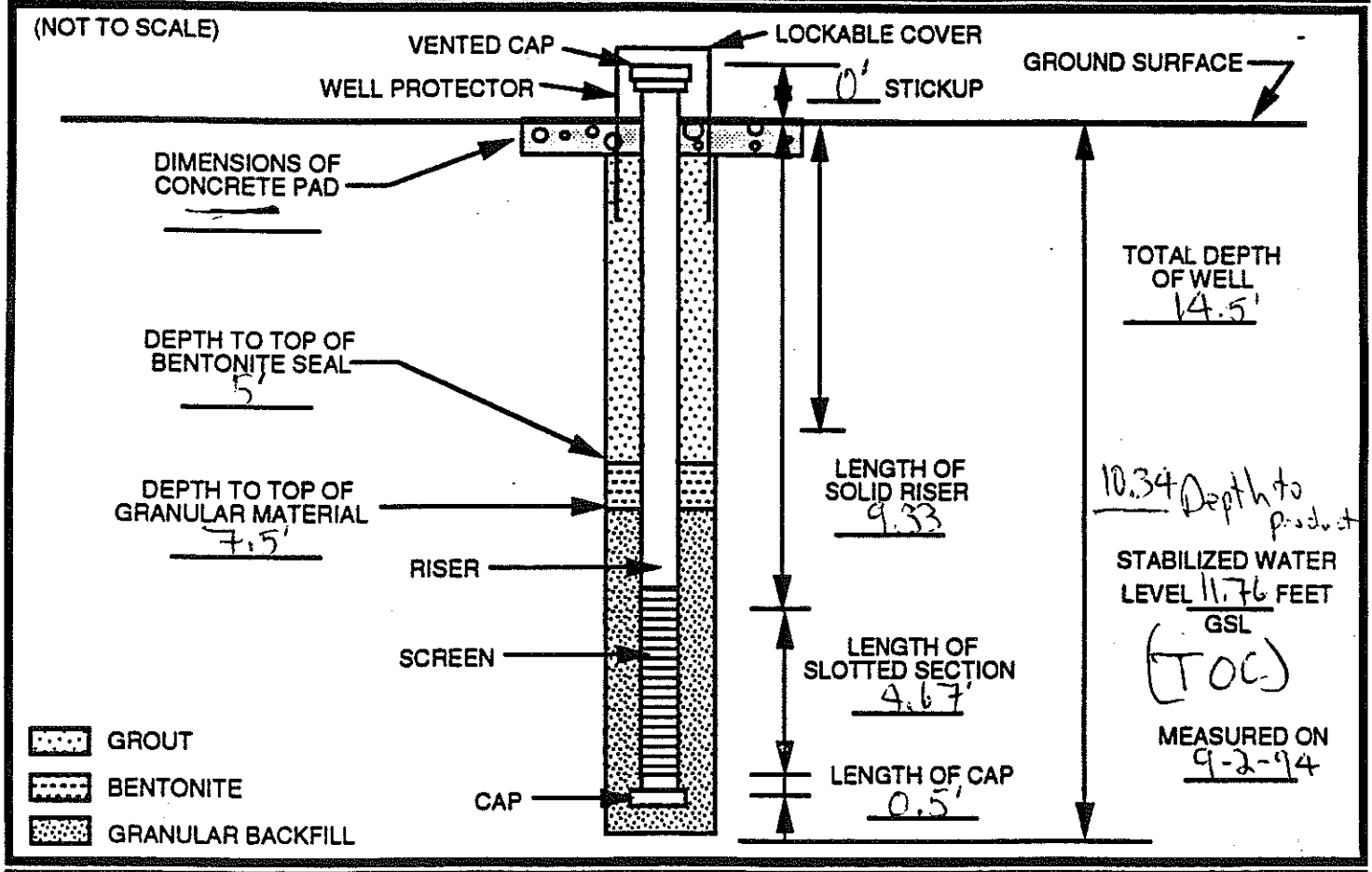
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

JOB NAME GE Chamblee
WELL NO. BH-6
JOB NO. 41-1545-07 T-06
DATE 5-31-94

GROUND SURFACE ELEVATION 1021.64
TOP OF CASING ELEVATION 1021.64
TYPE SAND PACK Silica Sand
SCREEN MATERIAL PVC
MANUFACTURER BE-Trinity
RISER MATERIAL PVC
MANUFACTURER BE-Trinity
RISER DIAMETER 2"
DRILLING TECHNIQUE Hollow stem augering
BIT SIZE AND TYPE 3 1/4" ID 6.5" OD

BENTONITE TYPE 3/8" CETCO PELLETS
CEMENT TYPE
BOREHOLE DIAMETER 6.5"
SCREEN DIAMETER 2" SLOT SIZE 0.10
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE Tom Boland
DRILLING CONTRACTOR Law
AMOUNT BENTONITE USED 17 lbs.
AMOUNT CEMENT USED
AMOUNT SAND USED 150 lbs.
STATIC WATER DEPTH (after dev.)



INSTALLED BY: Wayne Melvin INSTALLATION OBSERVED BY: Tom Boland

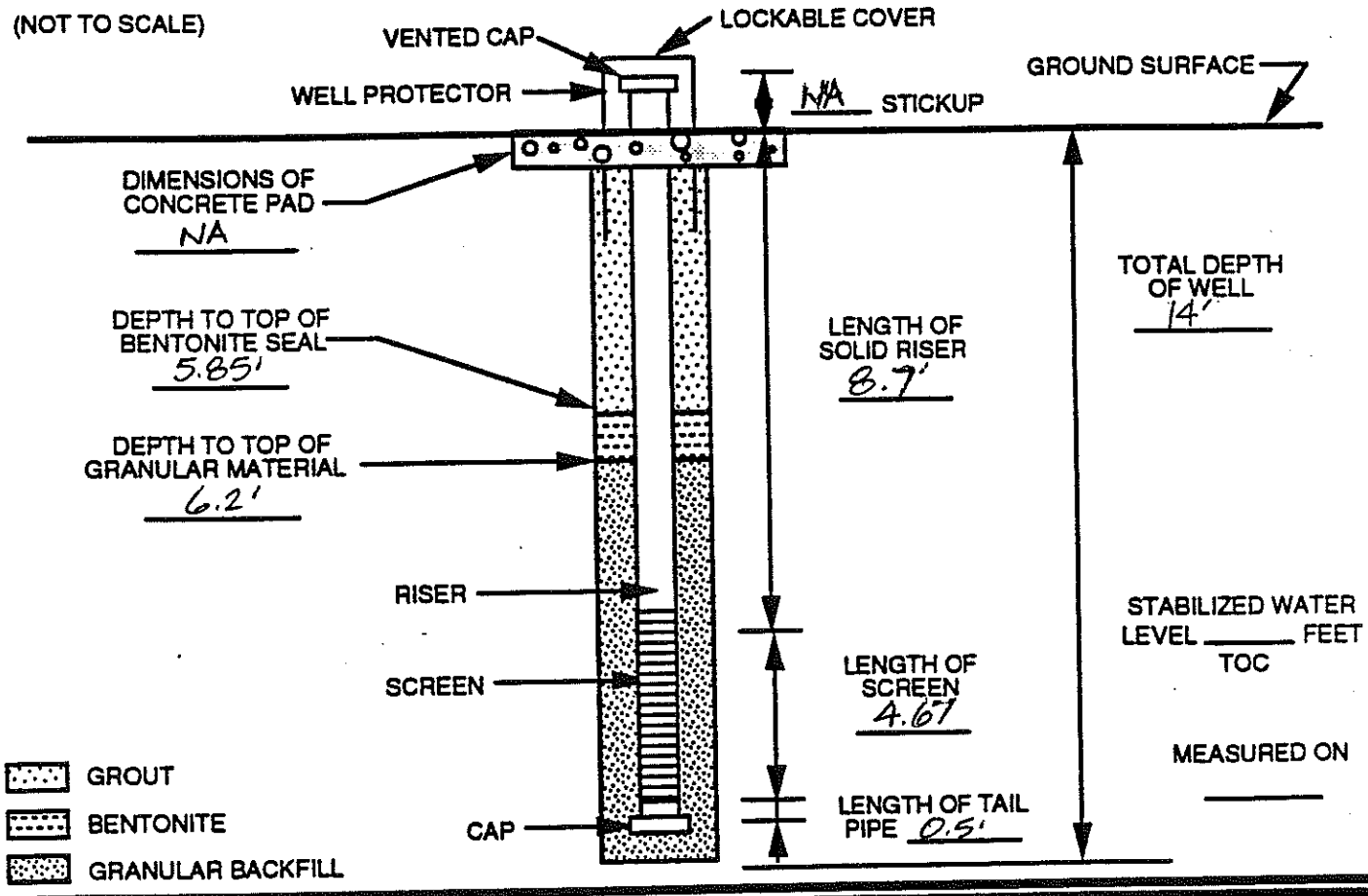
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

WELL NO. BH-7 JOB NO. 41-154507
JOB NAME GE CHAMBLEE
DATE 8/31/94 TIME
WELL LOCATION

GROUND SURFACE ELEVATION 1020.77
TOP OF SCREEN ELEVATION 1012.07'
REFERENCE POINT ELEVATION (TOC) 1020.67
TYPE SAND PACK 6-10 GRADATION
SAND PACK MANUFACTURER
SCREEN MATERIAL SCH. 40 PVC
MANUFACTURER
RISER MATERIAL SCH. 40 PVC
MANUFACTURER
RISER DIAMETER 2"
DRILLING TECHNIQUE (above casing) HOLLOW STEM AUGER
BIT SIZE AND TYPE 8"
DRILLING TECHNIQUE (below casing)
BIT SIZE AND TYPE

BENTONITE TYPE PELLETS
MANUFACTURER
CEMENT TYPE
MANUFACTURER
BOREHOLE DIAMETER 8"
SCREEN DIAMETER 2" SLOT SIZE 0.02"
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE ALBERT SACCHETTA
DRILLING CONTRACTOR LAW ENGINEERING
AMOUNT BENTONITE USED
AMOUNT CEMENT USED
AMOUNT SAND USED
STATIC WATER DEPTH (after dev.)



INSTALLED BY: J. OGLESBY INSTALLATION OBSERVED BY: ALBERT SACCHETTA
DISCREPANCIES:

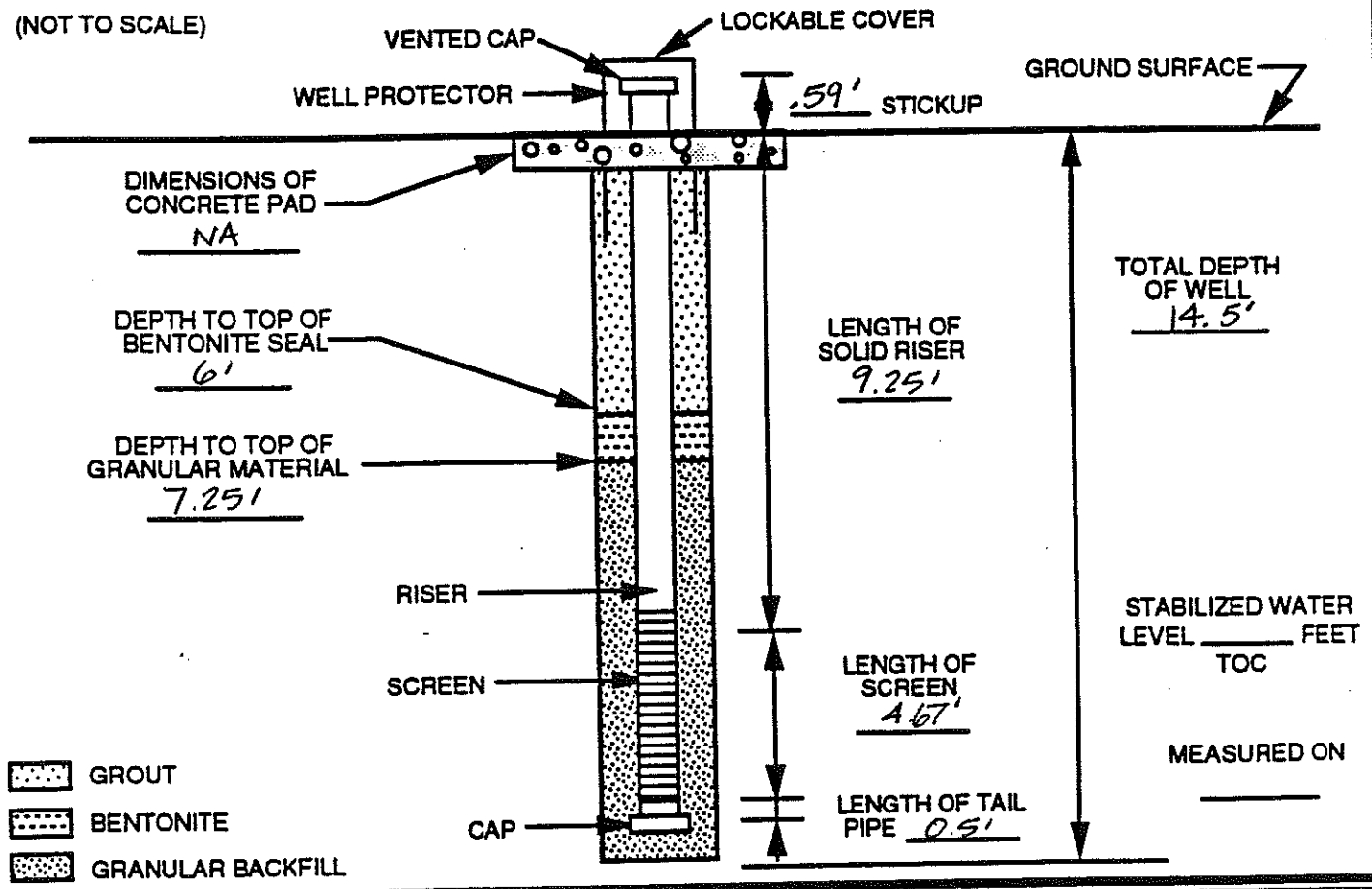
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

WELL NO. BH-8 JOB NO. 41-154507
JOB NAME GE CHAMBLEE
DATE 8/31/94 TIME
WELL LOCATION

GROUND SURFACE ELEVATION 1021.19
TOP OF SCREEN ELEVATION 1011.94
REFERENCE POINT ELEVATION (TOC) 1021.78
TYPE SAND PACK 6-10 GRADATION
SAND PACK MANUFACTURER
SCREEN MATERIAL SCH. 40 PVC
MANUFACTURER
RISER MATERIAL SCH. 40 PVC
MANUFACTURER
RISER DIAMETER 2"
DRILLING TECHNIQUE (above casing) HOLLOW STEM AUGER
BIT SIZE AND TYPE 8"
DRILLING TECHNIQUE (below casing)
BIT SIZE AND TYPE

BENTONITE TYPE PELLETS
MANUFACTURER
CEMENT TYPE
MANUFACTURER
BOREHOLE DIAMETER 8"
SCREEN DIAMETER 2" SLOT SIZE 0.02"
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE ALBERT SACCHETTA
DRILLING CONTRACTOR LAW ENGINEERING
AMOUNT BENTONITE USED
AMOUNT CEMENT USED
AMOUNT SAND USED
STATIC WATER DEPTH (after dev.)



INSTALLED BY: J. OGLESBY INSTALLATION OBSERVED BY: ALBERT SACCHETTA
DISCREPANCIES:

TYPE II MONITORING WELL INSTALLATION DIAGRAM

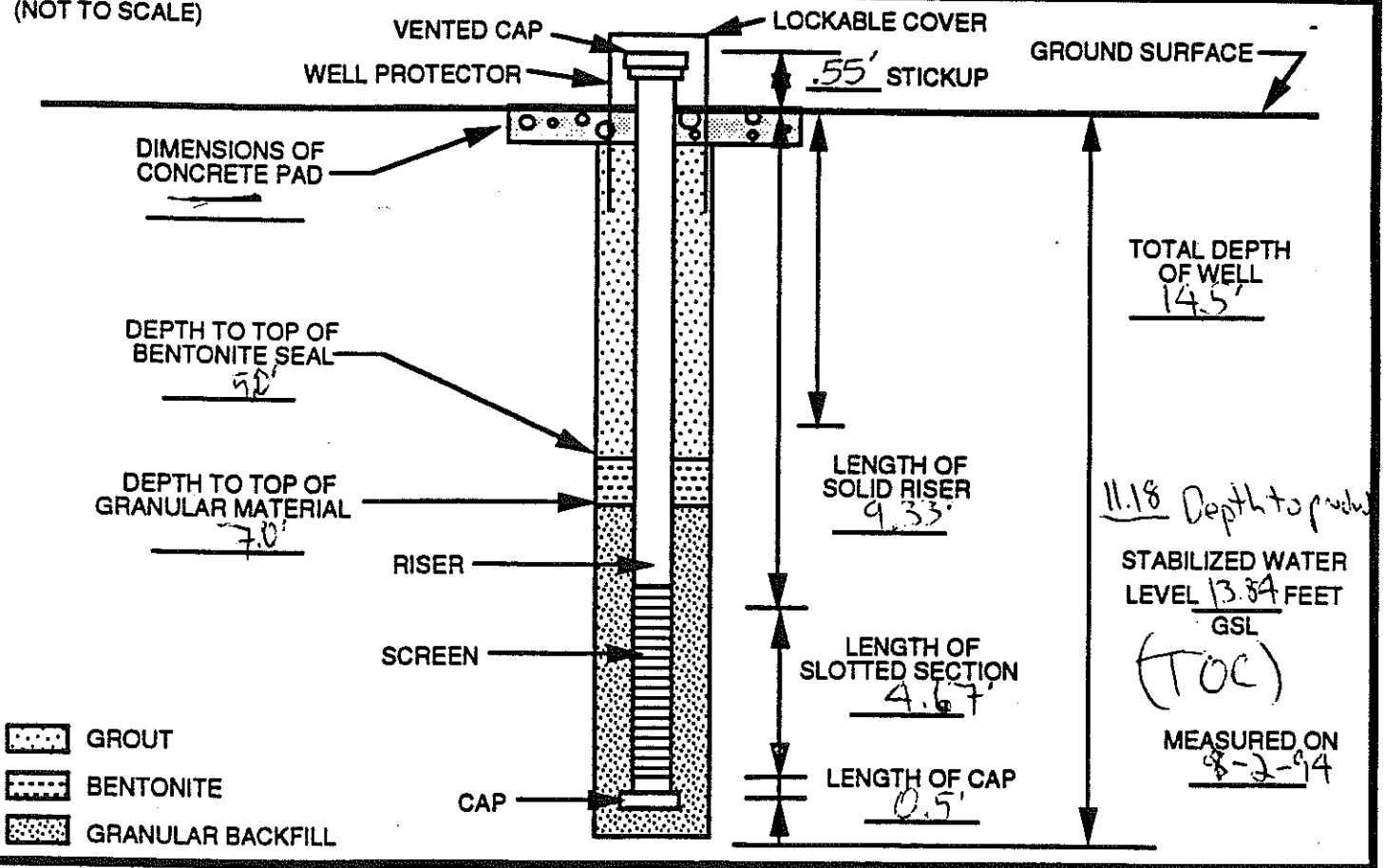
LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

JOB NAME GE Chamblee
WELL NO. BH-9
JOB NO. 41-1545-07 T-06
DATE 5-31-94

GROUND SURFACE ELEVATION 1021.49
TOP OF CASING ELEVATION 1022.04
TYPE SAND PACK Silica Sand
SCREEN MATERIAL PVC
MANUFACTURER BK-Trimlo
RISER MATERIAL PVC
MANUFACTURER BK-Trimlo
RISER DIAMETER 2"
DRILLING TECHNIQUE Hollow stem augering
BIT SIZE AND TYPE 3¼" ID 6.9" OD

BENTONITE TYPE 3/8" CETCO PELLETS
CEMENT TYPE
BOREHOLE DIAMETER 6.5"
SCREEN DIAMETER 2" SLOT SIZE 0.10
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE Tom Boland
DRILLING CONTRACTOR Law
AMOUNT BENTONITE USED 17 lbs.
AMOUNT CEMENT USED
AMOUNT SAND USED 150 lbs.
STATIC WATER DEPTH (after dev.)

(NOT TO SCALE)



INSTALLED BY: Wayne Melvin INSTALLATION OBSERVED BY: Tom Boland

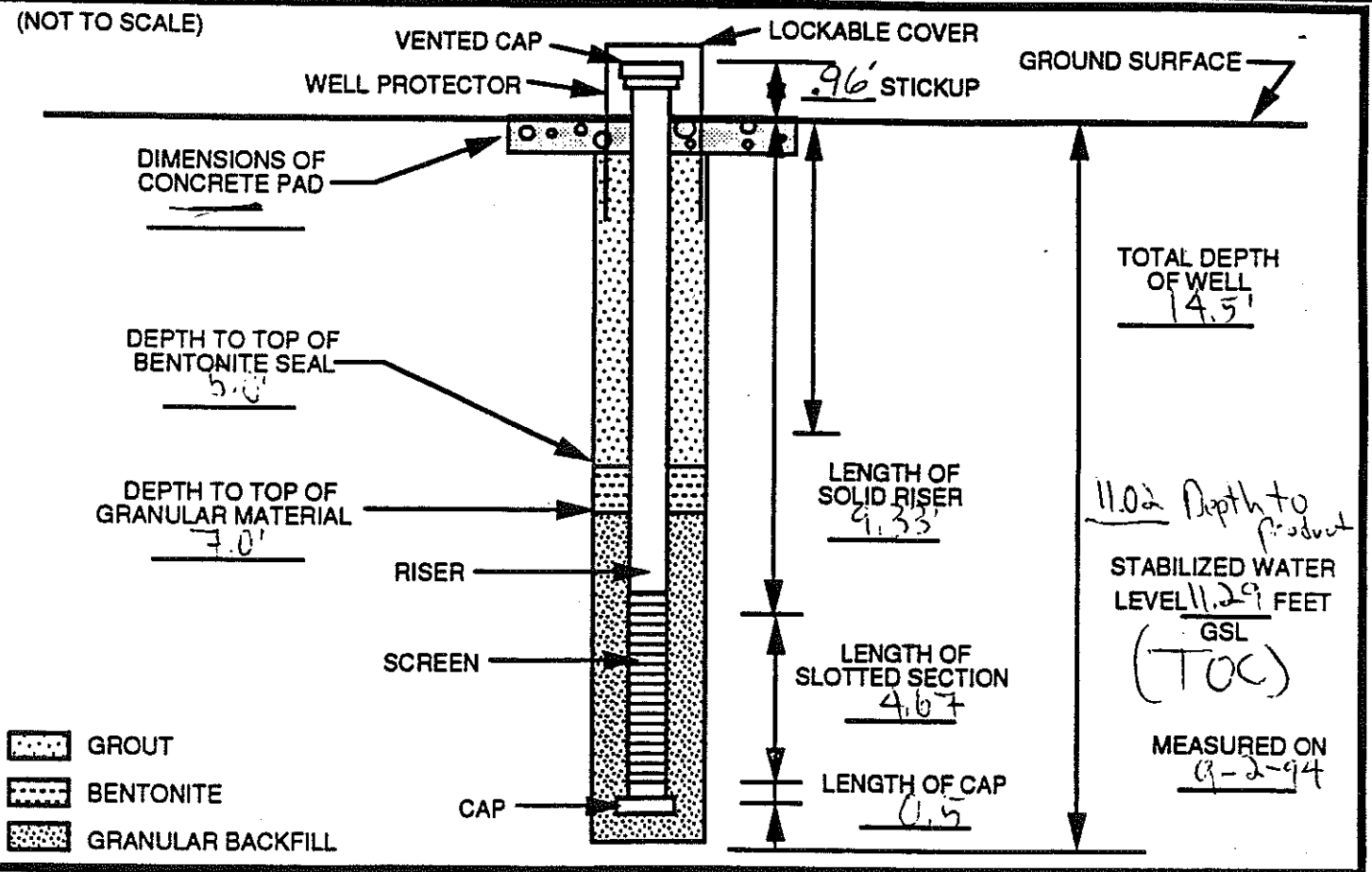
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

JOB NAME GE Chamblee
WELL NO. B17-10
JOB NO. 41-1545-07 T-06
DATE 9-1-94

GROUND SURFACE ELEVATION 1021.75
TOP OF CASING ELEVATION 1022.71
TYPE SAND PACK Silica Sand
SCREEN MATERIAL PVC
MANUFACTURER BK-Morrison
RISER MATERIAL PVC
MANUFACTURER BK-Morrison
RISER DIAMETER 2"
DRILLING TECHNIQUE Hollow stem augering
BIT SIZE AND TYPE 3¼" ID 6.9" OD

BENTONITE TYPE 3/8" CETCO PELLETS
CEMENT TYPE
BOREHOLE DIAMETER 6.5"
SCREEN DIAMETER 2" SLOT SIZE 0.10
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE Tom Boland
DRILLING CONTRACTOR Law
AMOUNT BENTONITE USED 25 lbs.
AMOUNT CEMENT USED
AMOUNT SAND USED 150 lbs.
STATIC WATER DEPTH (after dev.)



INSTALLED BY: Wayne Melvin INSTALLATION OBSERVED BY: Tom Boland

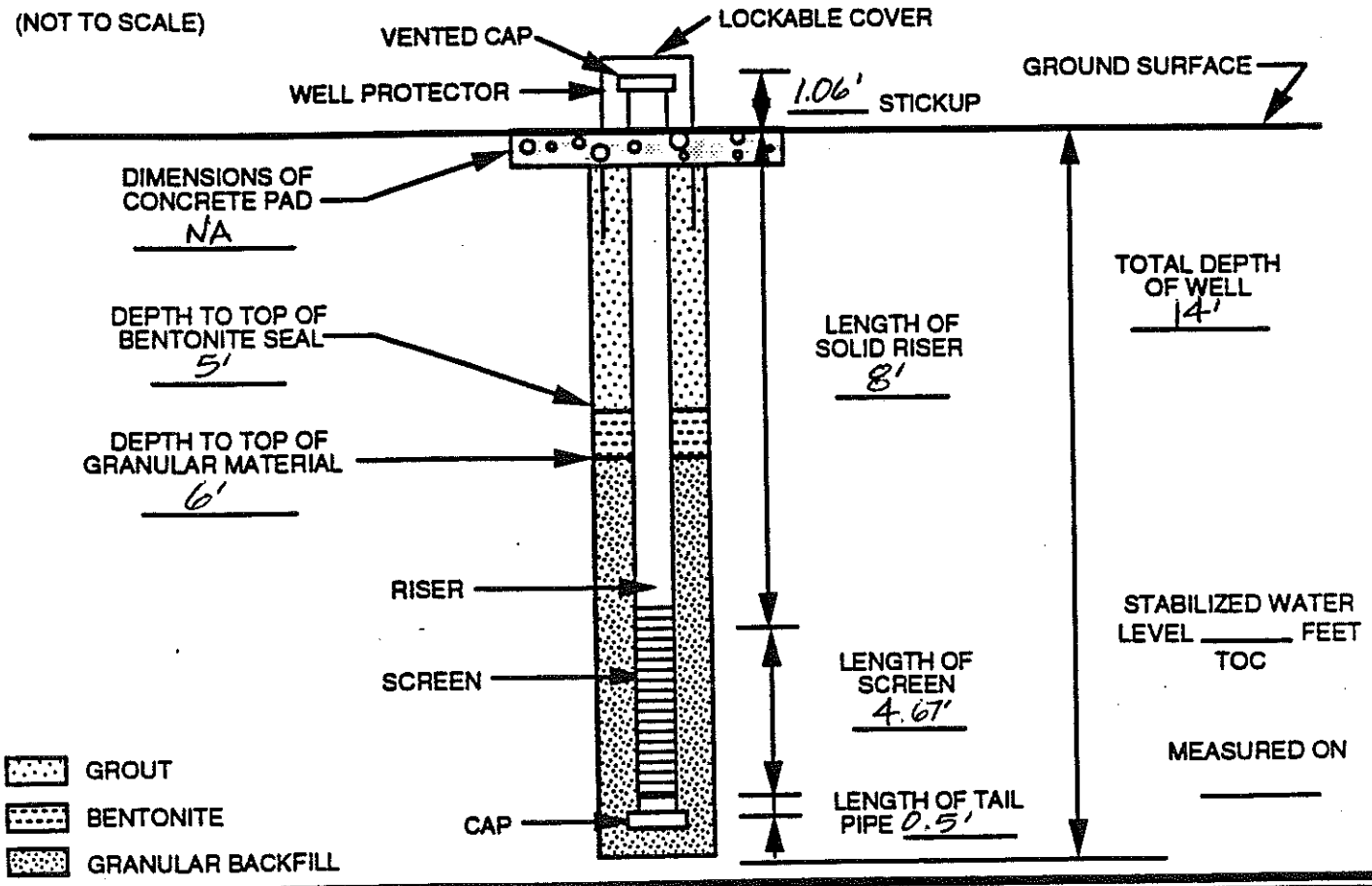
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

WELL NO. BH-11 JOB NO. 41-154507
JOB NAME GE CHAMBLEE
DATE 9/1/94 TIME
WELL LOCATION

GROUND SURFACE ELEVATION 1021.44
TOP OF SCREEN ELEVATION 1013.44
REFERENCE POINT ELEVATION (TOC) 1022.50
TYPE SAND PACK 6-10 GRADATION
SAND PACK MANUFACTURER
SCREEN MATERIAL SCH. 40 PVC
MANUFACTURER
RISER MATERIAL SCH. 40 PVC
MANUFACTURER
RISER DIAMETER 2"
DRILLING TECHNIQUE (above casing) HOLLOW STEM AUGER
BIT SIZE AND TYPE 8"
DRILLING TECHNIQUE (below casing)
BIT SIZE AND TYPE

BENTONITE TYPE
MANUFACTURER
CEMENT TYPE
MANUFACTURER
BOREHOLE DIAMETER 8"
SCREEN DIAMETER 2" SLOT SIZE 0.02"
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE ALBERT SACCHETTA
DRILLING CONTRACTOR LAW ENGINEERING
AMOUNT BENTONITE USED
AMOUNT CEMENT USED
AMOUNT SAND USED
STATIC WATER DEPTH (after dev.)



INSTALLED BY: J. OGLESBY INSTALLATION OBSERVED BY: ALBERT SACCHETTA
DISCREPANCIES:

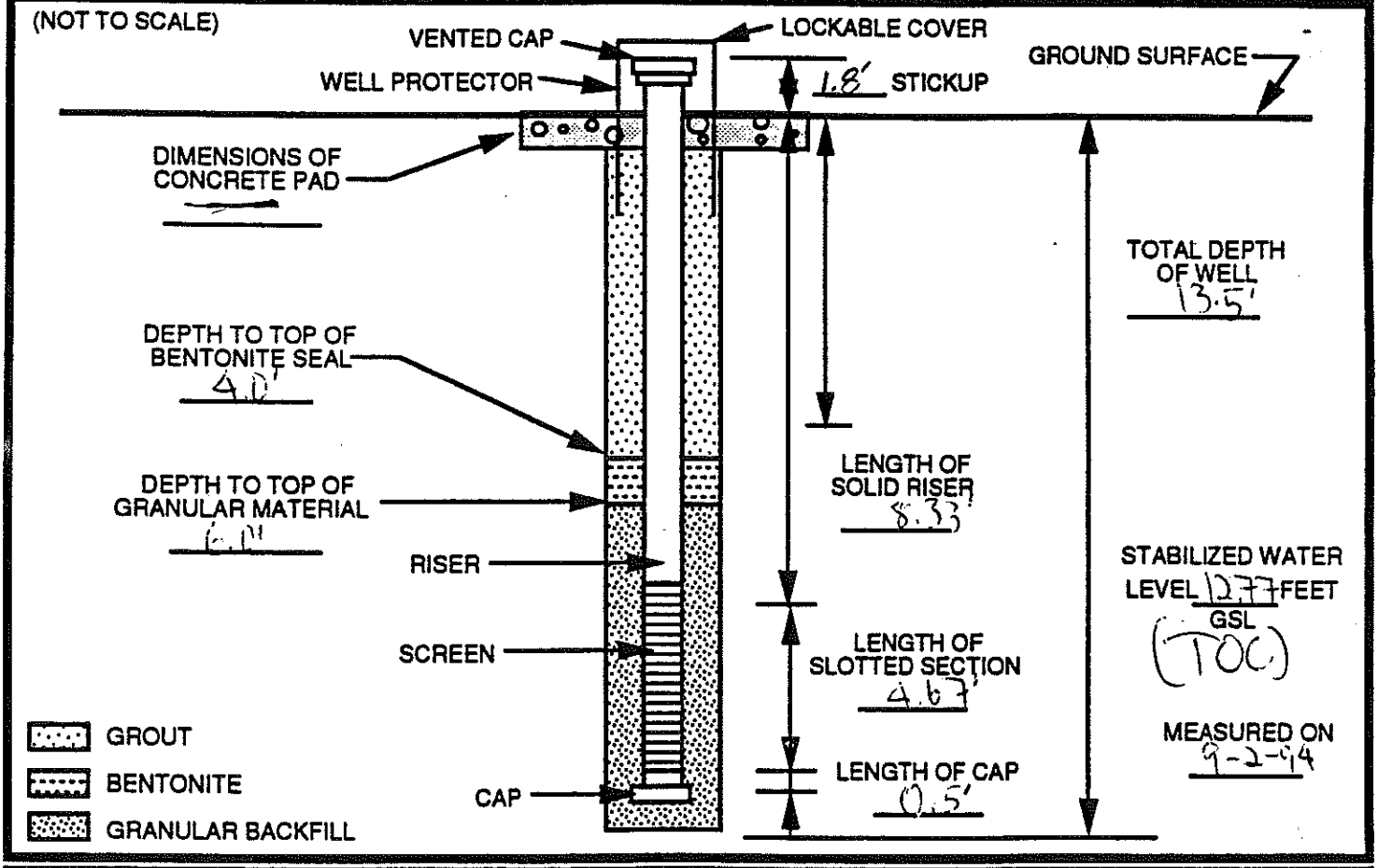
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

JOB NAME GE Chamblee
WELL NO. BH-12
JOB NO. 41-1545-07 T-06
DATE 8-1-94

GROUND SURFACE ELEVATION 1020.33
TOP OF CASING ELEVATION 1022.13
TYPE SAND PACK Silica Sand
SCREEN MATERIAL PVC
MANUFACTURER BK-Products
RISER MATERIAL PVC
MANUFACTURER BK-Products
RISER DIAMETER 2"
DRILLING TECHNIQUE Hollow stem augering
BIT SIZE AND TYPE 3 1/4" ID 6.9" OD

BENTONITE TYPE 3/8" CETCO PELLETS
CEMENT TYPE
BOREHOLE DIAMETER 6.5"
SCREEN DIAMETER 2" SLOT SIZE 0.10
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE Tom Boland
DRILLING CONTRACTOR Law
AMOUNT BENTONITE USED 25 lbs
AMOUNT CEMENT USED
AMOUNT SAND USED 150 lbs.
STATIC WATER DEPTH (after dev.)



INSTALLED BY: Wayne Melvin INSTALLATION OBSERVED BY: Tom Boland

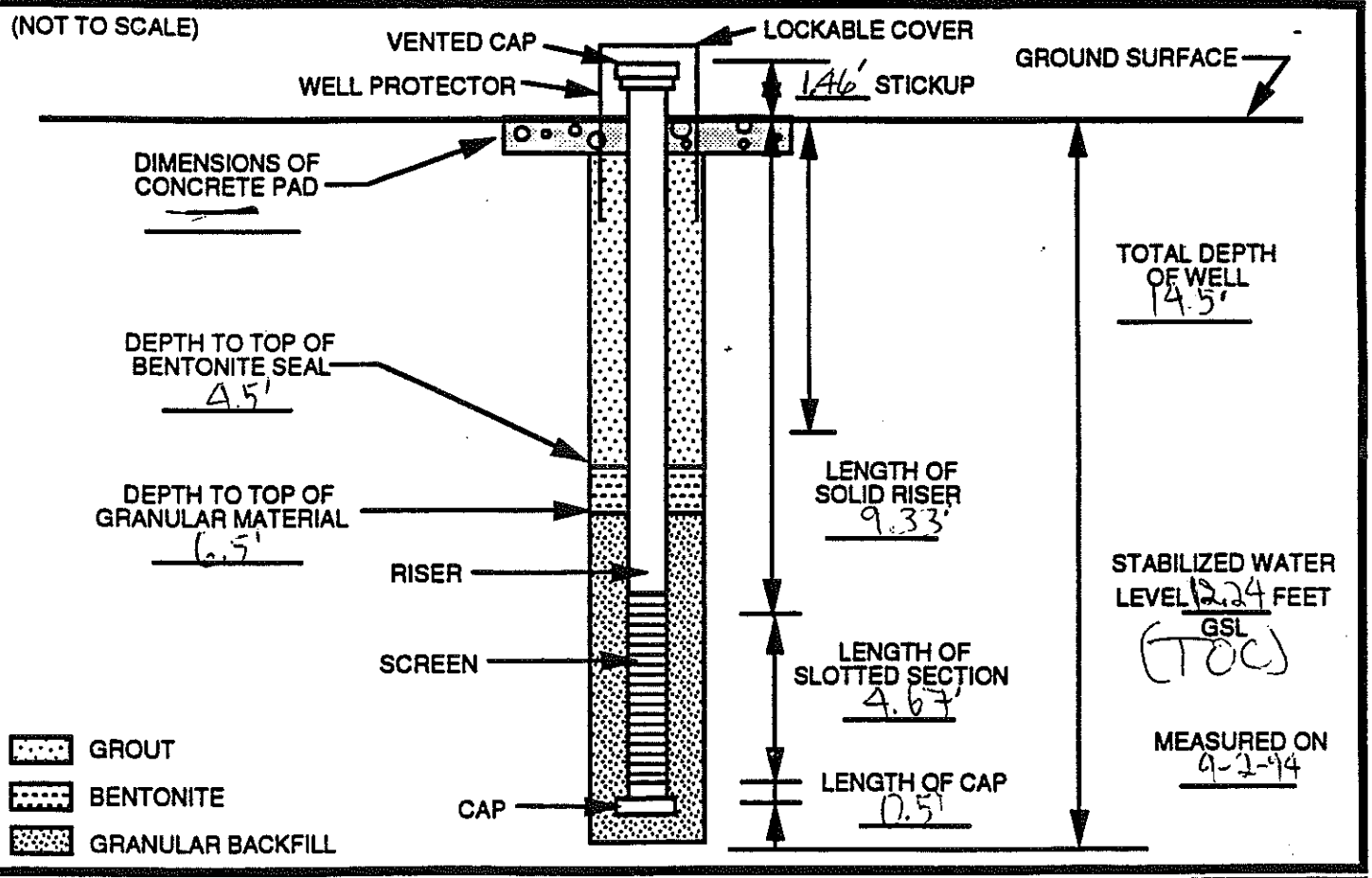
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

JOB NAME GE Chamblee
WELL NO. B11-14
JOB NO. 41-1545-07 T-06
DATE 9-1-94

GROUND SURFACE ELEVATION 1021.60
TOP OF CASING ELEVATION 1023.06
TYPE SAND PACK Silica Sand
SCREEN MATERIAL PVC
MANUFACTURER BX-Morrison
RISER MATERIAL PVC
MANUFACTURER BF-Morrison
RISER DIAMETER 2"
DRILLING TECHNIQUE Hollow stem augering
BIT SIZE AND TYPE 3 1/4" ID 6.5" OD

BENTONITE TYPE 3/8" CETCO PELLETS
CEMENT TYPE
BOREHOLE DIAMETER 6.5"
SCREEN DIAMETER 2" SLOT SIZE 0.10
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE Tom Boland
DRILLING CONTRACTOR Law
AMOUNT BENTONITE USED 25 lbs.
AMOUNT CEMENT USED
AMOUNT SAND USED 150 lbs.
STATIC WATER DEPTH (after dev.)



INSTALLED BY: Wayne Melvin INSTALLATION OBSERVED BY: Tom Boland

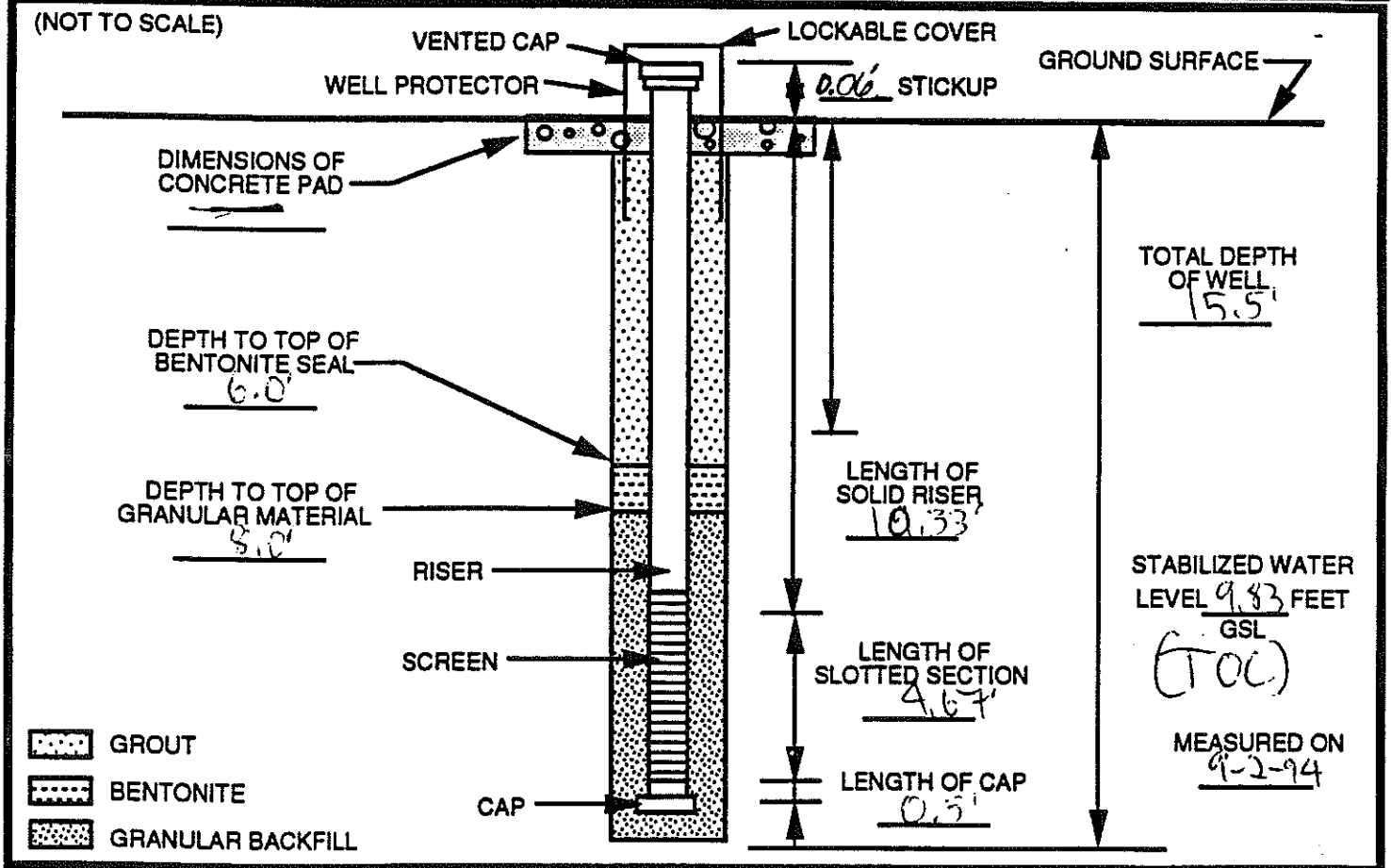
TYPE II MONITORING WELL INSTALLATION DIAGRAM

LAW ENVIRONMENTAL, INC.
KENNESAW, GEORGIA

JOB NAME GE Chamblee
WELL NO. BH-13
JOB NO. 41-1545-07 T-06
DATE 9-1-94

GROUND SURFACE ELEVATION 1022.05
TOP OF CASING ELEVATION 1022.11
TYPE SAND PACK Silica Sand
SCREEN MATERIAL PVC
MANUFACTURER BK-Trimlock
RISER MATERIAL PVC
MANUFACTURER BK-Trimlock
RISER DIAMETER 2"
DRILLING TECHNIQUE Hollow stem augering
BIT SIZE AND TYPE 3 1/4" ID 6.9" OD

BENTONITE TYPE 3/8" CETCO PELLETS
CEMENT TYPE
BOREHOLE DIAMETER 6.5"
SCREEN DIAMETER 2" SLOT SIZE 0.10
LAW ENVIRONMENTAL, INC. FIELD REPRESENTATIVE Tom Boland
DRILLING CONTRACTOR Law
AMOUNT BENTONITE USED 25 lbs.
AMOUNT CEMENT USED
AMOUNT SAND USED 150 lbs.
STATIC WATER DEPTH (after dev.)

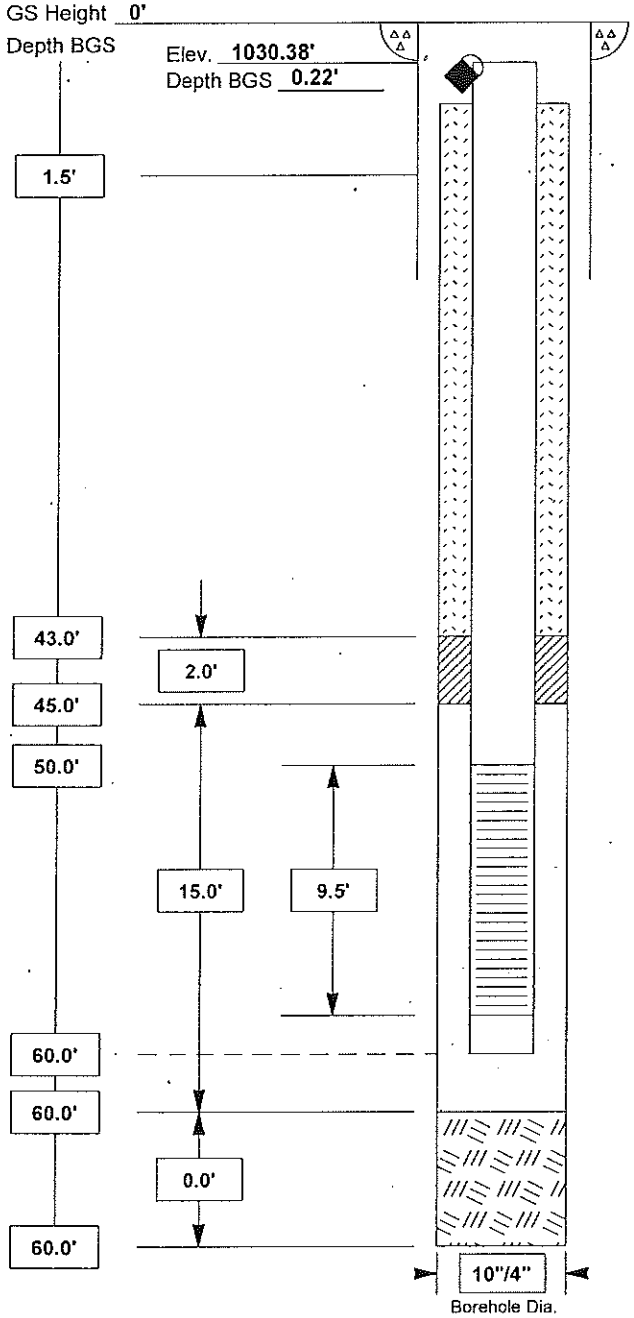


INSTALLED BY: Wayne Melvin INSTALLATION OBSERVED BY: Tom Boland

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 2 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N4742.2939, E5575.8907
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-23
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	35.0'
8. DEPTH DRILLED INTO ROCK	25.0'
9. TOTAL DEPTH OF HOLE	60.0'
10. SIZE AND TYPE OF BIT	10" carbide/4" roller
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Feb 19, 02 / COMPLETED Feb 20, 02
17. ELEVATION TOP OF HOLE	1030.6'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ron Judson

GS Elev. 1030.6'
GS Height 0'



PROTECTIVE CSG
Material/Type flushmount
Diameter 4.0"/2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. Type

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 4.0"/2.0"
Total Length (TOC to TOS) 50.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y) N)
Interval BGS 1.5-43.0'

CENTRALIZERS (Y / N)
Depth(s)

SEAL
Type Bentonite Pellets
Source
Setup/Hydration Time
Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used
Tremied (Y) N)
Source Filtersil
Gr. Size Dist. 20-40

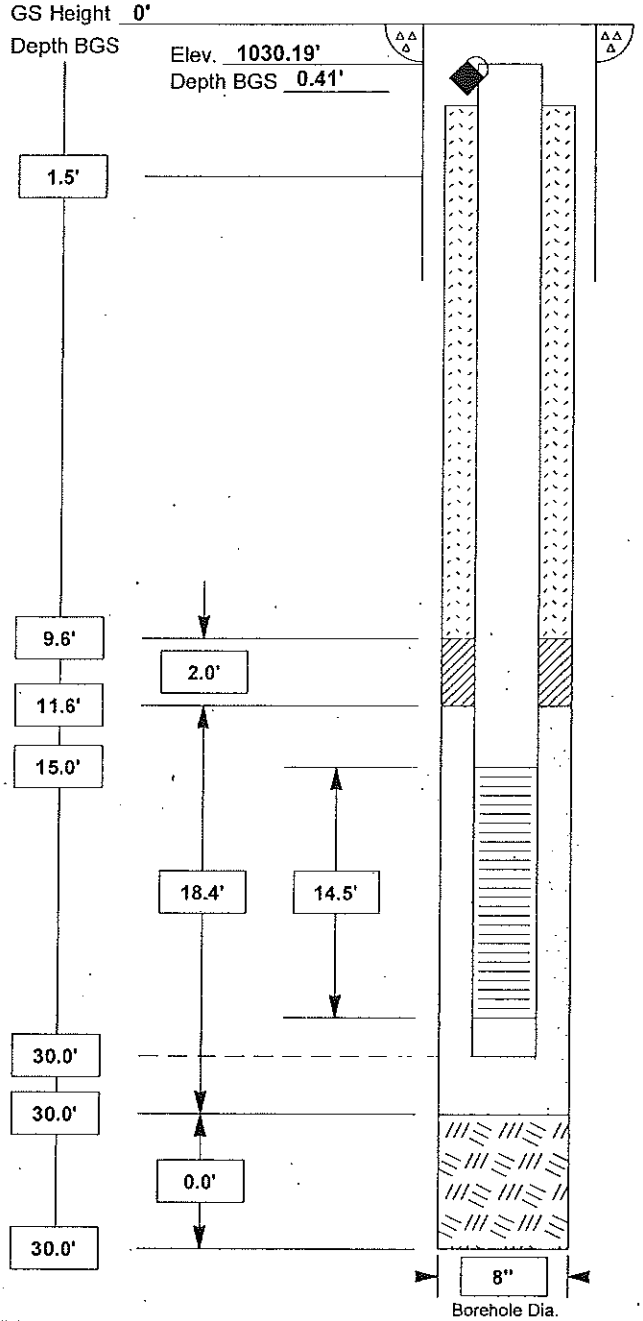
SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 50.0-59.5'

SUMP (Y / N)
Interval BGS 59.5-60.0' Length 0.5'
Bottom Cap (Y) N)

BACKFILL PLUG
Material NA
Setup/Hydration Time
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 2 OF 2 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA	10. SIZE AND TYPE OF BIT	8" carbide
2. LOCATION (Coordinates or Station)	N4739.1036, E5570.7016	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
3. DRILLING AGENCY	Environmental Exploration, Inc.	12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
4. HOLE NO. (As shown on drawing title and file number)	MW-24	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 / UNDISTURBED 0
5. NAME OF DRILLER	David Nalls	14. TOTAL NUMBER CORE BOXES	0
6. DIRECTION OF HOLE ☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE	STARTED Feb 18, 02 / COMPLETED Feb 18, 02
7. THICKNESS OF OVERBURDEN	30.0'	17. ELEVATION TOP OF HOLE	1030.6'
8. DEPTH DRILLED INTO ROCK	0'	18. TOTAL CORE RECOVERY FOR BORING	0 %
9. TOTAL DEPTH OF HOLE	30.0'	19. SIGNATURE OF INSPECTOR	Ken Hudson



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 15.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y) N)
Interval BGS 1.5-9.6'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Pellets
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y) N)
Source Filtersil
Gr. Size Dist. 20-40

SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 15.0-29.5'

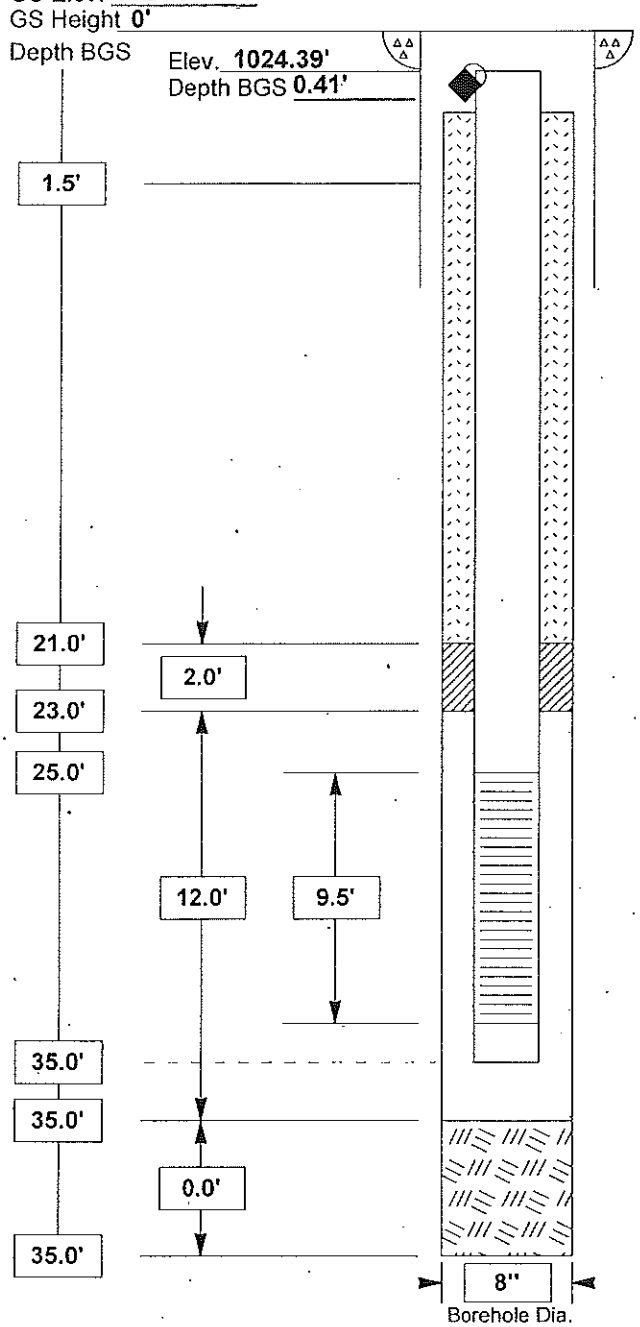
SUMP (Y) N)
Interval BGS 29.5-30.0' Length 0.5'
Bottom Cap (Y) N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5301.2355, E5323.5278
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-25
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	35.0'
8. DEPTH DRILLED INTO ROCK	0'
9. TOTAL DEPTH OF HOLE	35.0'
10. SIZE AND TYPE OF BIT	8" carbide
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Apr 29, 02 COMPLETED Apr 29, 02
17. ELEVATION TOP OF HOLE	1024.8'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ron Hudson

GS Elev. 1024.8'
GS Height 0'
Depth BGS



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 25.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-21.0'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Chips
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

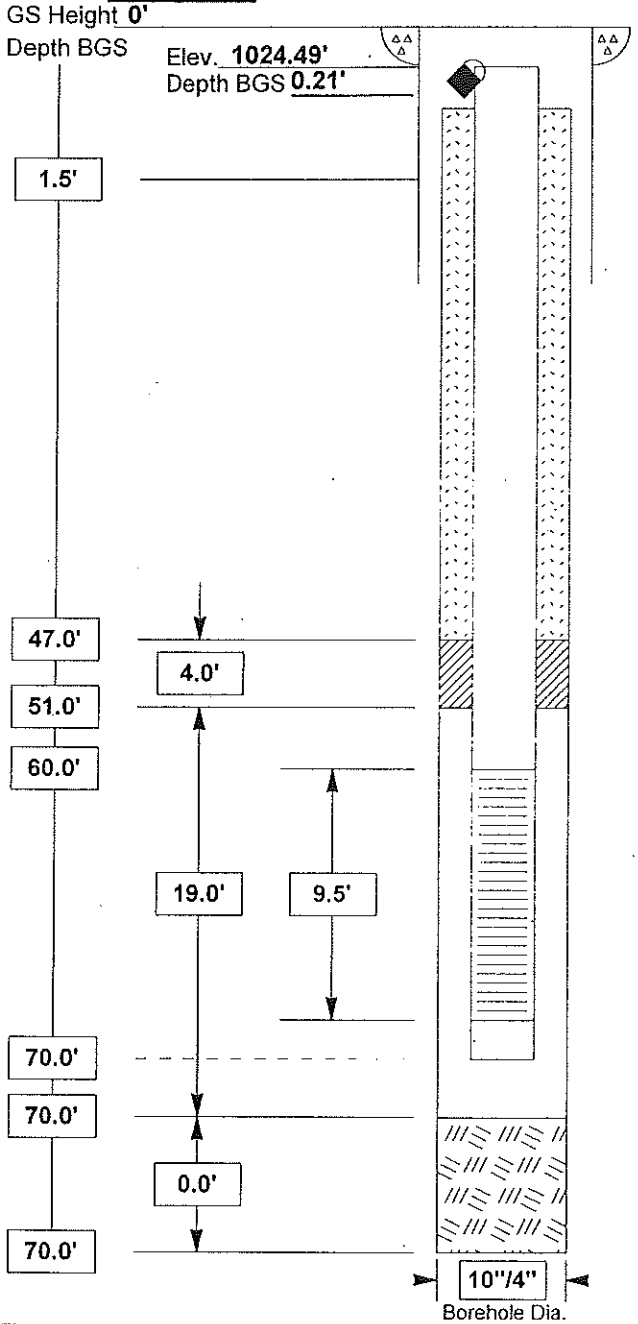
SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 25.0-34.5'

SUMP (Y / N)
Interval BGS 34.5-35.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET
		URS Corporation	1 OF 1 SHEETS

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5405.7544, E5247.0255
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-26
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	46.0"
8. DEPTH DRILLED INTO ROCK	24'
9. TOTAL DEPTH OF HOLE	70.0'
10. SIZE AND TYPE OF BIT	10" carbide/4" roller
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Apr 29, 02 COMPLETED Apr 30, 02
17. ELEVATION TOP OF HOLE	1024.7'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ron Gordon



PROTECTIVE CSG
Material/Type flushmount
Diameter 4.0"/2.0"
Depth BGS 1.5' Weep Hole (Y / (N))

GUARD POSTS (Y / (N))
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 4.0"/2.0"
Total Length (TOC to TOS) 60.0'
Ventilated Cap (Y / (N))

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied ((Y) / N)
Interval BGS 1.5-47.0'

CENTRALIZERS (Y / (N))
Depth(s) _____

SEAL
Type Bentonite Chips
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied ((Y) / N)
Source Filtersil
Gr. Size Dist. 20-40

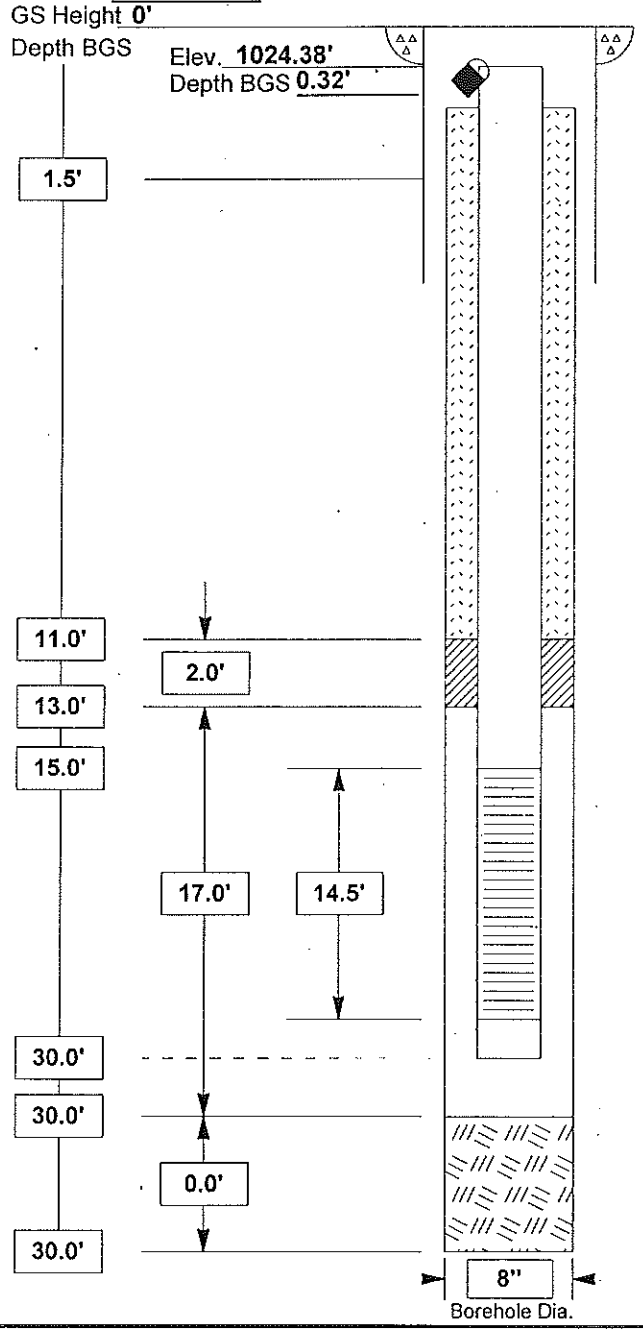
SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 60.0-69.5'

SUMP ((Y) / N)
Interval BGS 69.5-70.0' Length 0.5'
Bottom Cap ((Y) / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT GE, Chamblee, GA		10. SIZE AND TYPE OF BIT	8" carbide
2. LOCATION (Coordinates or Station) N5430.9028, E5219.0795		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY Environmental Exploration, Inc.		12. MANUFACTURES'S DESIGNATION OF DRILL CME 75	
4. HOLE NO. (As shown on drawing title and file number)	MW-27	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 / UNDISTURBED 0
5. NAME OF DRILLER David Nalls		14. TOTAL NUMBER CORE BOXES	0
6. DIRECTION OF HOLE ☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE	STARTED Feb 18, 02 / COMPLETED Feb 18, 02
7. THICKNESS OF OVERBURDEN	30.0'	17. ELEVATION TOP OF HOLE	1024.7'
8. DEPTH DRILLED INTO ROCK	0'	18. TOTAL CORE RECOVERY FOR BORING	0 %
9. TOTAL DEPTH OF HOLE	30.0'	19. SIGNATURE OF INSPECTOR	Ron Hudson



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. Type

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 15.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-11.0'

CENTRALIZERS (Y / N)
Depth(s)

SEAL
Type Bentonite Pellets
Source
Setup/Hydration Time
Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 15.0-29.5'

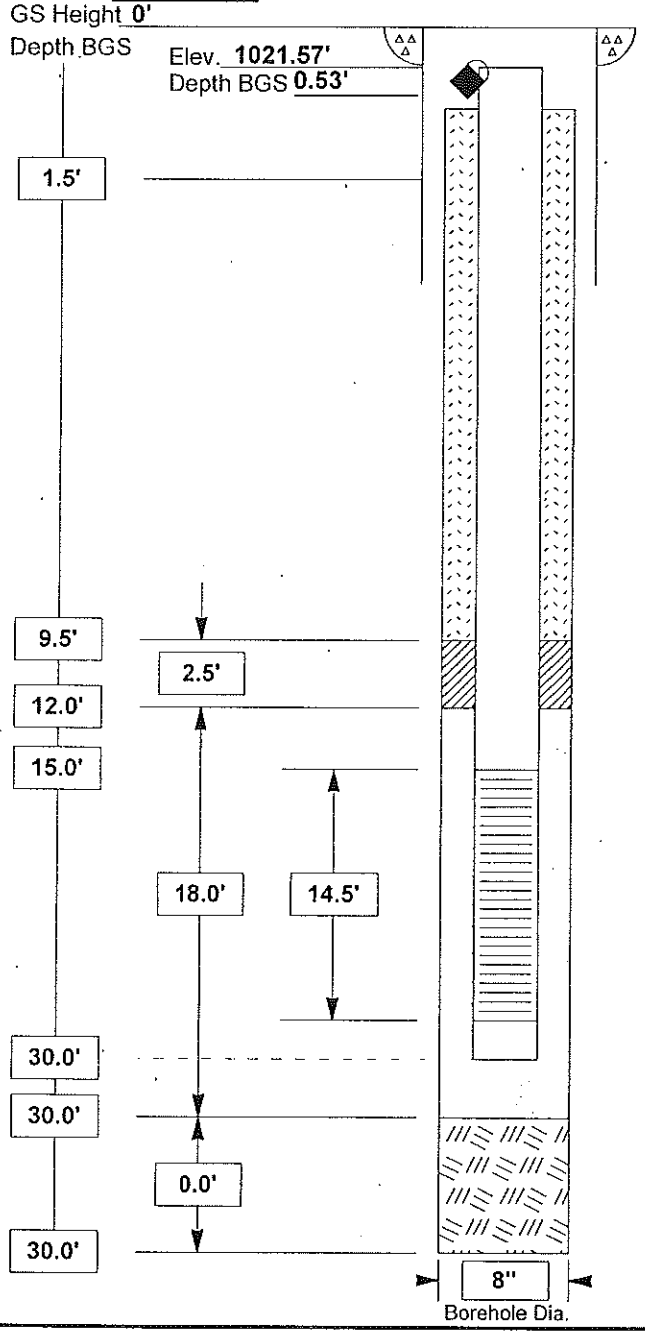
SUMP (Y / N)
Interval BGS 29.5-30.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT: GE, Chamblee, GA		10. SIZE AND TYPE OF BIT: 8" carbide	
2. LOCATION (Coordinates or Station): N5236.0681, E5052.8095		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: Environmental Exploration, Inc.		12. MANUFACTURES'S DESIGNATION OF DRILL: CME 75	
4. HOLE NO. (As shown on drawing title and file number): MW-28		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: 0 / UNDISTURBED: 0
5. NAME OF DRILLER: David Nalls		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN: 30.0'		16. DATE HOLE	STARTED: Feb 19, 02 / COMPLETED: Feb 19, 02
8. DEPTH DRILLED INTO ROCK: 0'		17. ELEVATION TOP OF HOLE: 1022.1'	
9. TOTAL DEPTH OF HOLE: 30.0'		18. TOTAL CORE RECOVERY FOR BORING: 0 %	
		19. SIGNATURE OF INSPECTOR: Ron Hudson	

GS Elev. 1022.1'
GS Height 0'



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 15.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-9.5'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Pellets
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 15.0-29.5'

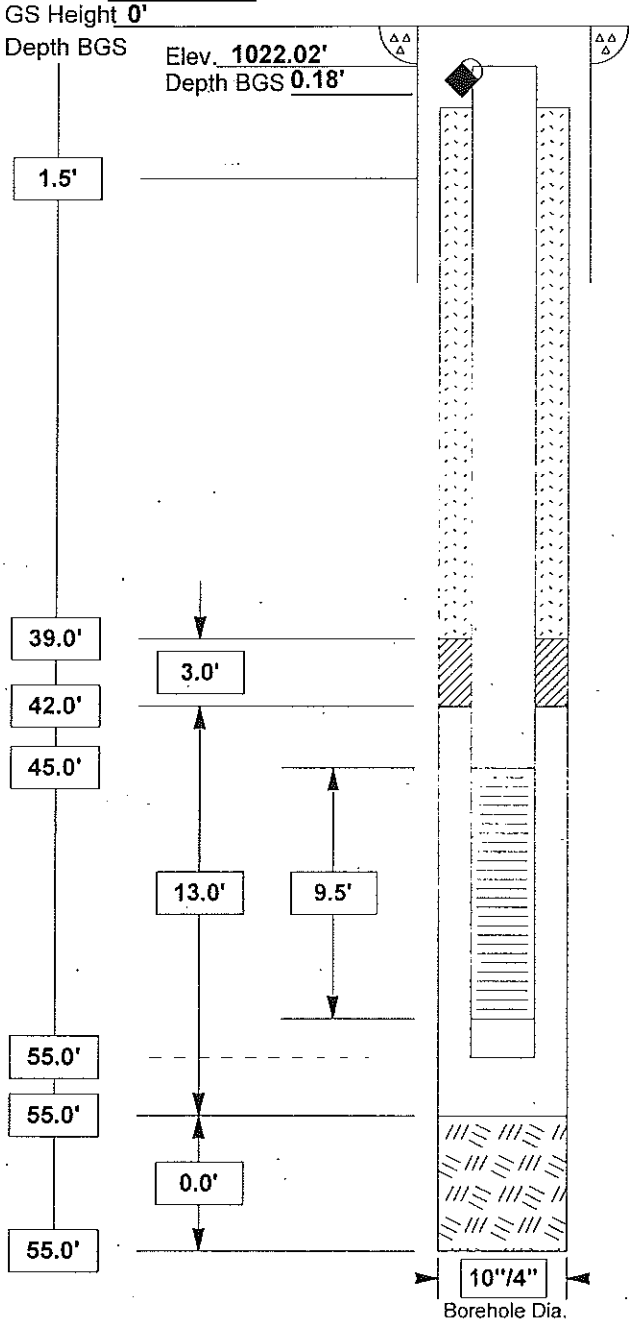
SUMP (Y / N)
Interval BGS 29.5-30.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5242.1884, E5057.5175
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-29
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE ☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN	36.0'
8. DEPTH DRILLED INTO ROCK	19.0'
9. TOTAL DEPTH OF HOLE	55.0'
10. SIZE AND TYPE OF BIT	10" carbide/4" roller
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Feb 19, 02 / COMPLETED Feb 20, 02
17. ELEVATION TOP OF HOLE	1022.2'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ron Hudson

GS Elev. 1022.2'
GS Height 0'



PROTECTIVE CSG
Material/Type flushmount
Diameter 4.0"/2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 4.0"/2.0"
Total Length (TOC to TOS) 45.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-39.0'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Pellets
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

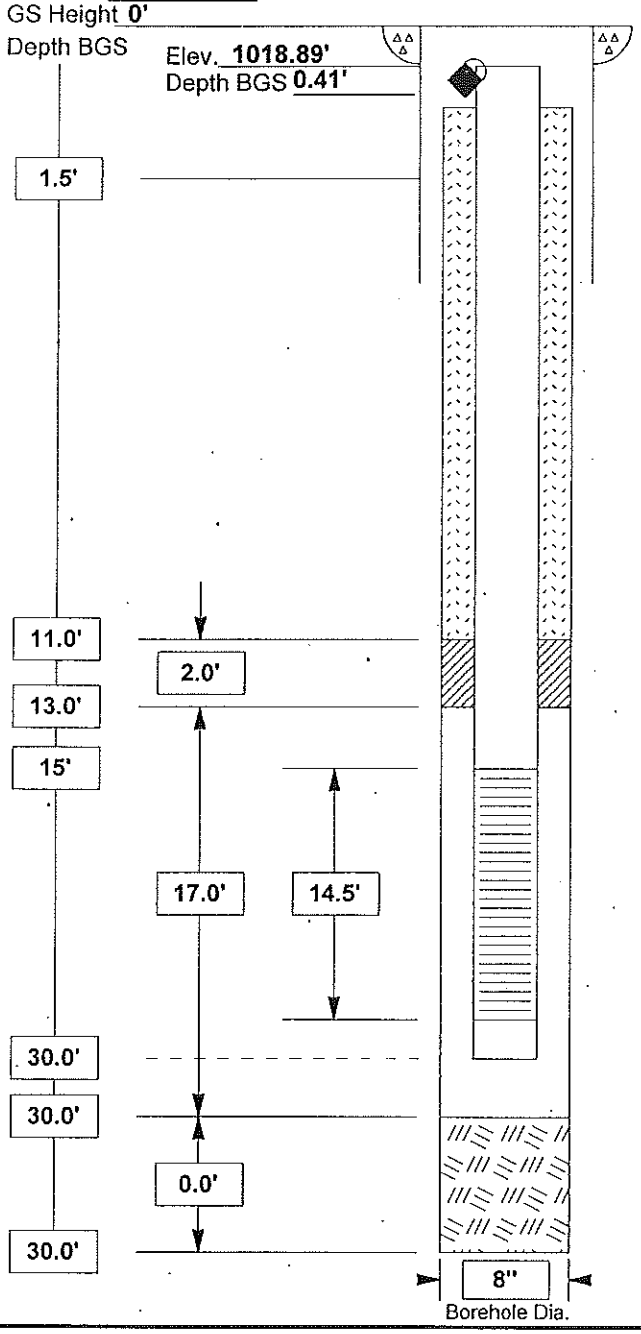
SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 45.0-54.5'

SUMP (Y / N)
Interval BGS 54.5-55.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5086.9190, E4984.4456
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-30
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	30.0'
8. DEPTH DRILLED INTO ROCK	0'
9. TOTAL DEPTH OF HOLE	30.0'
10. SIZE AND TYPE OF BIT	8" carbide
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Feb 18, 02 / COMPLETED Feb 18, 02
17. ELEVATION TOP OF HOLE	1019.3'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 15.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-30.0'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Pellets
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

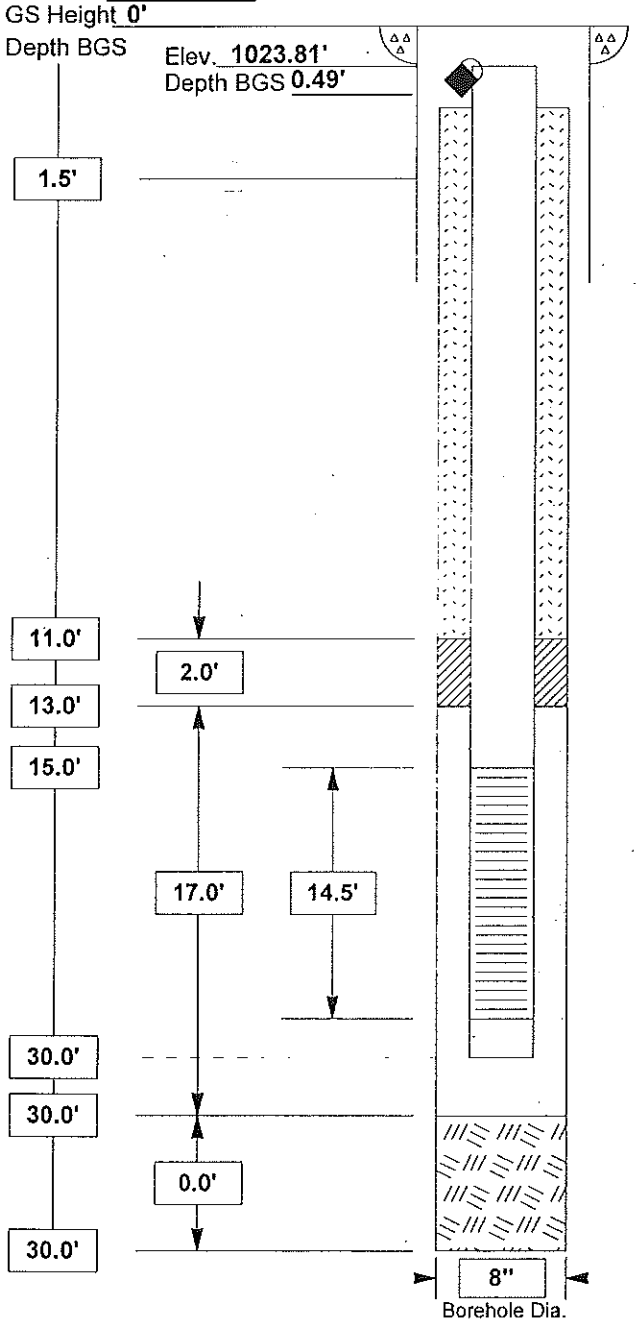
SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 15.0-29.5'

SUMP (Y / N)
Interval BGS 29.5-30.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5229.5203, E5259.8640
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-31
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	30.0'
8. DEPTH DRILLED INTO ROCK	0'
9. TOTAL DEPTH OF HOLE	30.0'
10. SIZE AND TYPE OF BIT	8" carbide
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Feb 20, 02 COMPLETED Feb 20, 02
17. ELEVATION TOP OF HOLE	1024.3'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ron Hudson



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. Type

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 15.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-11.0'

CENTRALIZERS (Y / N)
Depth(s)

SEAL
Type Bentonite Pellets
Source
Setup/Hydration Time
Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

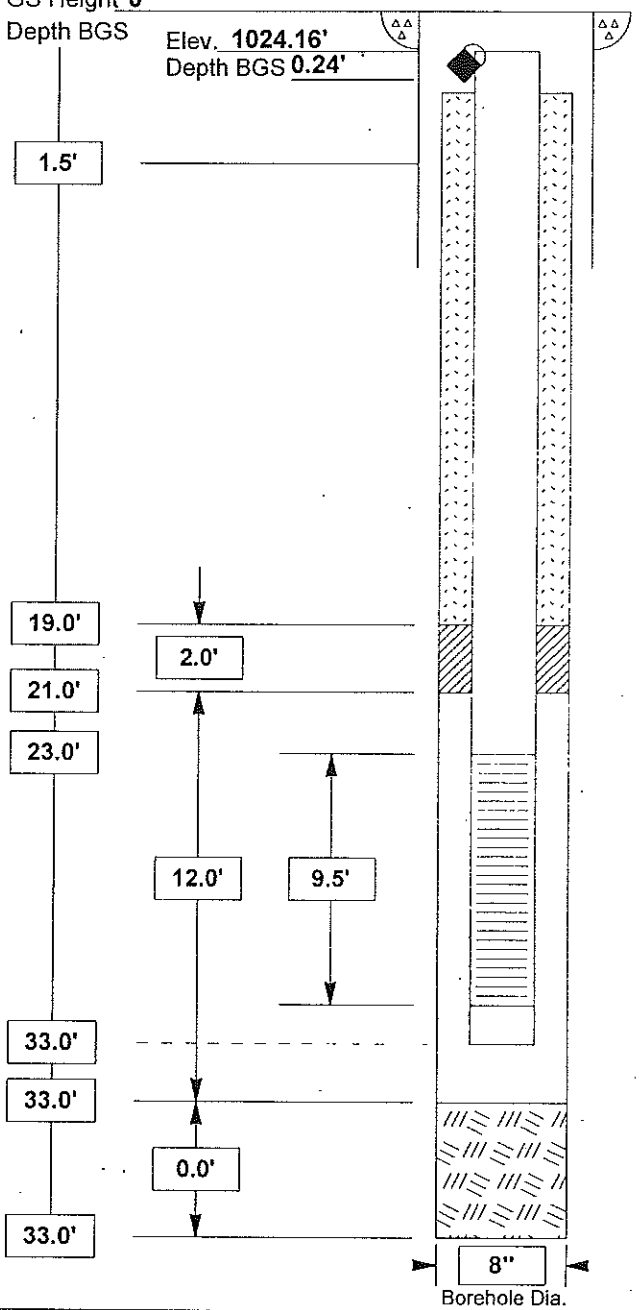
SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 15.0-29.5'

SUMP (Y / N)
Interval BGS 29.5-30.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5203.1708, E5379.0814
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-32
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	33.0'
8. DEPTH DRILLED INTO ROCK	0'
9. TOTAL DEPTH OF HOLE	33.0'
10. SIZE AND TYPE OF BIT	8" carbide
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Apr 8, 02 COMPLETED Apr 8, 02
17. ELEVATION TOP OF HOLE	1024.4'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ron Hudson



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 23.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-19.0'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Chips
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

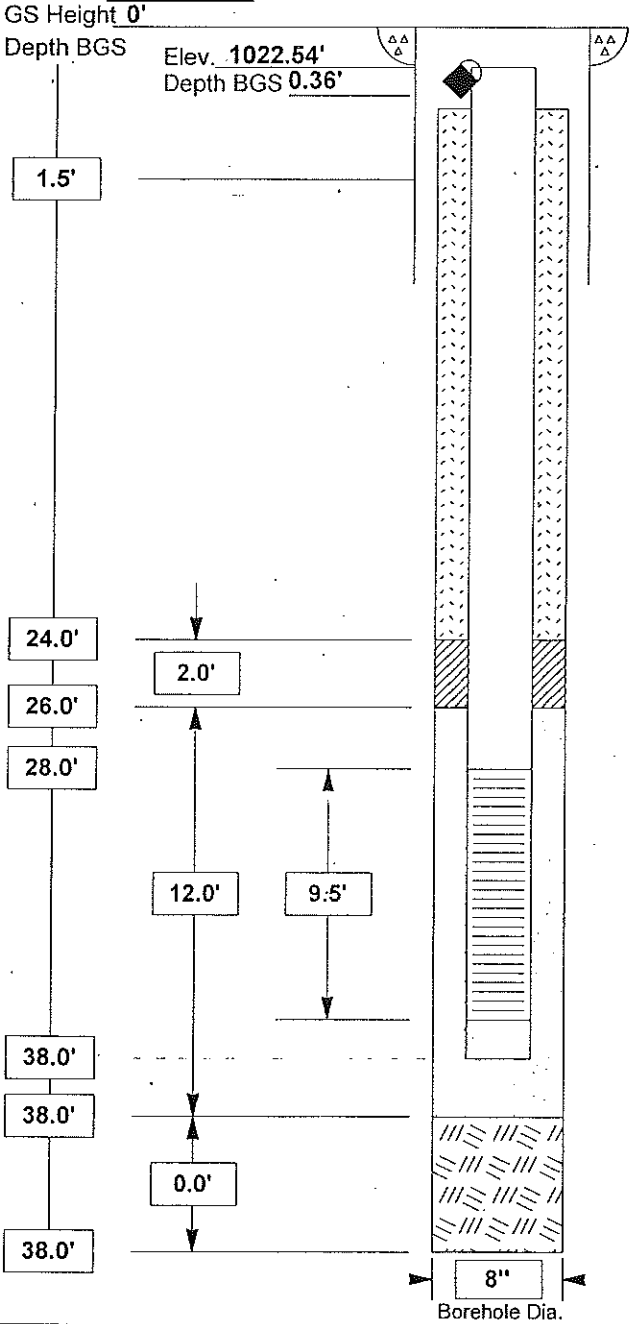
SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 23.0-32.5'

SUMP (Y / N)
Interval BGS 32.5-33.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5188.9241, E5479.9517
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-33
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	38.0'
8. DEPTH DRILLED INTO ROCK	0'
9. TOTAL DEPTH OF HOLE	38.0'
10. SIZE AND TYPE OF BIT	8" carbide
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Apr 8, 02 COMPLETED Apr 8, 02
17. ELEVATION TOP OF HOLE	1022.9'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ken Gudan



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 28.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-24.0'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Chips
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 28.0-37.5'

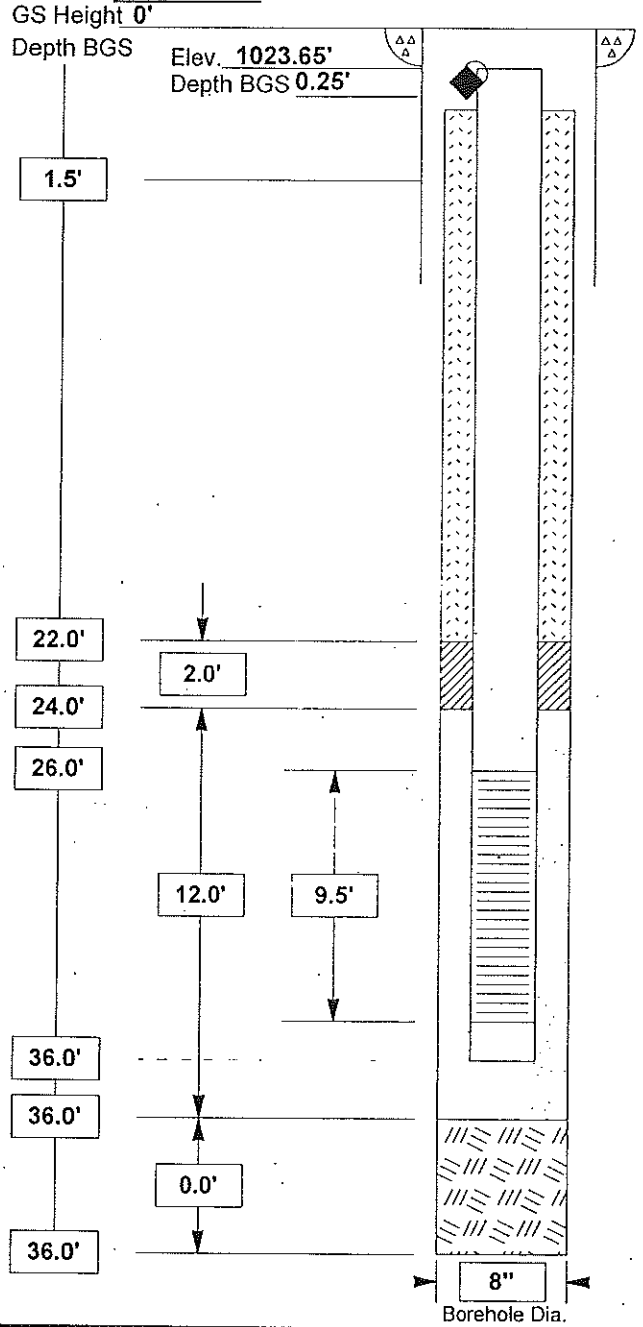
SUMP (Y / N)
Interval BGS 37.5-38.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5402.6603, E5402.6603
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-34
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	36.0'
8. DEPTH DRILLED INTO ROCK	0'
9. TOTAL DEPTH OF HOLE	36.0'
10. SIZE AND TYPE OF BIT	8" carbide
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Apr 8, 02 COMPLETED Apr 8, 02
17. ELEVATION TOP OF HOLE	1023.9'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ron Hudson

GS Elev. 1023.9'
GS Height 0'



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. Type

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 26.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-22.0'

CENTRALIZERS (Y / N)
Depth(s)

SEAL
Type Bentonite Chips
Source
Setup/Hydration Time
Vol. Fluid Added
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 26.0-35.5'

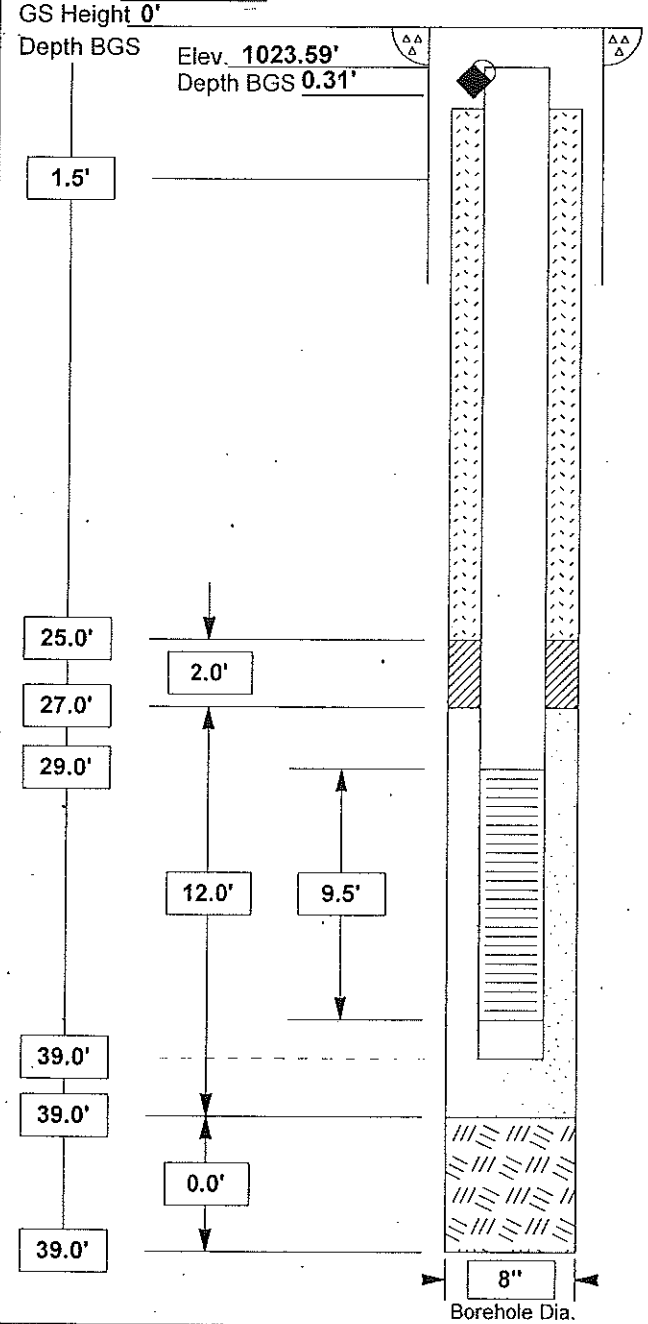
SUMP (Y / N)
Interval BGS 35.5-36.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time
Tremied (Y / N)

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
		URS Corporation	

1. PROJECT	GE, Chamblee, GA
2. LOCATION (Coordinates or Station)	N5376.4135, E5432.0048
3. DRILLING AGENCY	Environmental Exploration, Inc.
4. HOLE NO. (As shown on drawing title and file number)	MW-35
5. NAME OF DRILLER	David Nalls
6. DIRECTION OF HOLE	☐ VERTICAL ☐ INCLINED 0.0 DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	39.0'
8. DEPTH DRILLED INTO ROCK	0'
9. TOTAL DEPTH OF HOLE	39.0'
10. SIZE AND TYPE OF BIT	8" carbide
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MSL
12. MANUFACTURES'S DESIGNATION OF DRILL	CME 75
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 0 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED Apr 8, 02 / COMPLETED Apr 8, 02
17. ELEVATION TOP OF HOLE	1023.9'
18. TOTAL CORE RECOVERY FOR BORING	0 %
19. SIGNATURE OF INSPECTOR	Ken Hudson

GS Elev. 1023.9'
GS Height 0'



PROTECTIVE CSG
Material/Type flushmount
Diameter 2.0"
Depth BGS 1.5' Weep Hole (Y / N)

GUARD POSTS (Y / N)
No. _____ Type _____

SURFACE PAD
Composition & Size 6"x2'x2' Concrete

RISER PIPE
Type SCH 40 PVC
Diameter 2.0"
Total Length (TOC to TOS) 29.0'
Ventilated Cap (Y / N)

GROUT
Composition & Proportions Portland cement and bentonite gel mixture
Tremied (Y / N)
Interval BGS 1.5-25.0'

CENTRALIZERS (Y / N)
Depth(s) _____

SEAL
Type Bentonite Chips
Source _____
Setup/Hydration Time _____
Vol. Fluid Added _____
Tremied (Y / N)

FILTER PACK
Type Silica Sand
Amt. Used _____
Tremied (Y / N)
Source Filtersil
Gr. Size Dist. 20-40

SCREEN
Type Machine Slot
Diameter 2.0"
Slot Size & Type 0.010"
Interval BGS 29.0-38.5'

SUMP (Y / N)
Interval BGS 38.5-39.0' Length 0.5'
Bottom Cap (Y / N)

BACKFILL PLUG
Material NA
Setup/Hydration Time _____
Tremied (Y / N)

Boring Log: B-34

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 25, 2007

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 29

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
	1	0		0		***Concrete*** Concrete.
						Sandy Lean Clay (CL) Orange brown, sandy clay saprolite, crumbly, slightly plastic; moist.
5	2	0		90		
10	3	0		100		
15	4	0		90		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard, crumbly; moist to saturated at 15 feet. ***Sandy Lean Clay (CL)*** Orange brown, sandy clay saprolite, crumbly,slightly plastic; moist.
20	5	0		100		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard, crumbly; saturated. ***Clayey Sand (SC)*** Gray/brown, clayey sand, fine to medium grain, soft; saturated.
25	6	0		95		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard, crumbly; saturated.
30						Bottom of Boring at 29 feet

Geologist(s): Michael J. Gelles

Subcontractor: Geo Lab

Driller/Operator: Joe Grantham

Method: Direct Push

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: B-35

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 26, 2007

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 30

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
	1	0		80		***Concrete*** Concrete.
						Sandy Lean Clay (CL) Orange brown, sandy clay saprolite, crumbly, soft, gray mottling; moist.
5	2	0		50		
10	3	0		80		
15	4	0		100		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard, crumbly, brown/white banding; moist. ***Sandy Lean Clay (CL)*** Orange brown, sandy clay saprolite, crumbly, soft; moist; saturated at 16 to 18 feet.
20	5	0		50		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard, crumbly, brown/white banding; moist.
25	6	0		50		
30						

Bottom of Boring at 30 feet

Geologist(s): Michael J. Gelles

Subcontractor: Geo Lab

Driller/Operator: Joe Grantham

Method: Direct Push

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: B-36

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 26, 2007

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 15

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
	1	0	- - - -	50		***Concrete*** Concrete.
5	2	0	- - - -	50		***Sandy Lean Clay (CL)*** Orange brown, sandy clay saprolite, crumbly, soft, gray mottling; moist; saturated 10 to 12.5 feet; 6 to 8 feet possible old sewer line (void and concrete fragments).
10	3	0	- - - -	60		
15						Bottom of Boring at 15 feet
20						
25						
30						

Geologist(s): Michael J. Gelles

Subcontractor: Geo Lab

Driller/Operator: Joe Grantham

Method: Direct Push

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: B-37

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 26, 2007

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 30

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
	1	0		80		***Concrete*** Concrete.
						Sandy Lean Clay (CL) Orange brown, sandy clay saprolite, crumbly, soft, gray mottling; moist; saturated 14 to 14.5 feet.
5	2	0		60		
10	3	0		100		
15	4	0		100		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard, crumbly, brown/yellow banding; moist; saturated 14.5 to 15 feet.
						Sandy Lean Clay (CL) Orange brown, sandy clay saprolite, crumbly, soft, gray mottling; saturated.
20	5	0		60		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard, crumbly, brown/yellow banding; moist.
25	6	0		50		
30						Bottom of Boring at 30 feet

Geologist(s): Michael J. Gelles

Subcontractor: Geo Lab

Driller/Operator: Joe Grantham

Method: Direct Push

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: B-38

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 26, 2007

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 15

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
	1	0		80		***Concrete*** Concrete.
5	2	0		100		***Sandy Lean Clay (CL)*** Orange brown, sandy clay saprolite, crumbly, soft, gray mottling; moist; saturated 14 to 15 feet.
10	3	0		100		
15						Bottom of Boring at 15 feet
20						
25						
30						

Geologist(s): Michael J. Gelles

Subcontractor: Geo Lab

Driller/Operator: Joe Grantham

Method: Direct Push

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: B-39

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 26, 2007

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 15

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile	
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
	1	0		80		***Concrete*** Concrete.
5						***Sandy Lean Clay (CL)*** Orange brown, sandy clay saprolite, crumbly, soft, gray mottling; moist; saturated 14 to 15 feet.
	2	0		80		
10						
	3	0		100		
15						Bottom of Boring at 15 feet
20						
25						
30						

Geologist(s): Michael J. Gelles

Subcontractor: Geo Lab

Driller/Operator: Joe Grantham

Method: Direct Push

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: MW-12

Project: Rathon
Project No.: 122492-E
Location: Chamblee, Georgia
Completion Date: June 28, 2007

Surface Elevation (feet AMSL*): Not Determined
TOC Elevation (feet AMSL*):
Total Depth (feet): 65
Borehole Diameter (inches): 12/6
*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
	1	0		50		***Sandy Lean Clay (CL)*** Orange brown, sandy clay saprolite, crumbly, slightly plastic; moist to saturated at 15 feet.	
5	2	0		80			
10	3	0		100			
15	4	0		50			
20	5	0		70		***Clayey Sand (SC)*** Gray/brown, clayey sand, soft; saturated.	
25	6	0		100		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard; moist. ***Clayey Sand (SC)*** Gray/brown, clayey sand, soft; saturated.	
30							

Geologist(s): Michael J. Gelles
Subcontractor: Kilman Brothers, Inc.
Driller/Operator: Rick Cox
Method: Air Rotary

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: MW-12

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 28, 2007

Surface Elevation (feet AMSL*): Not Determined

TOC Elevation (feet AMSL*):

Total Depth (feet): 65

Borehole Diameter (inches): 12/6

**AMSL = Above mean sea level*

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
	7	0		100		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard; moist.	
						Clayey Sand (SC) Gray/brown, clayey sand, soft; saturated.	
35						***Fat Clay (CH)*** Orange brown, saprolite, weathered, hard; moist.	
40	8	0		100			
45						Saprolitic biotite gneiss, dark gray, wet.	
50							
55	9	0		100			
60							

Geologist(s): Michael J. Gelles

Subcontractor: Kilman Brothers, Inc.

Driller/Operator: Rick Cox

Method: Air Rotary

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: MW-12

Project: Rathon
Project No.: 122492-E
Location: Chamblee, Georgia
Completion Date: June 28, 2007

Surface Elevation (feet AMSL*): Not Determined
TOC Elevation (feet AMSL*):
Total Depth (feet): 65
Borehole Diameter (inches): 12/6
*AMSL = Above mean sea level

WSP ENVIRONMENTAL STRATEGIES

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Saprolitic biotite gneiss, dark gray, wet. *(continued)*	
65						Bottom of Boring at 65 feet	
70							
75							
80							
85							
90							

Geologist(s): Michael J. Gelles
Subcontractor: Kilman Brothers, Inc.
Driller/Operator: Rick Cox
Method: Air Rotary

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: MW-12

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 28, 2007

Surface Elevation (feet AMSL*): Not Determined

TOC Elevation (feet AMSL*):

Total Depth (feet): 65

Borehole Diameter (inches): 12/6

*AMSL = Above mean sea level

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Ground Surface	
	1	0		50		***Sandy Lean Clay (CL)*** Orange brown, sandy clay saprolite, crumbly, slightly plastic; moist to saturated at 15 feet.	
5	2	0		80			
10	3	0		100			
15	4	0		50			
20	5	0		70		***Clayey Sand (SC)*** Gray/brown, clayey sand, soft; saturated.	
25	6	0		100		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard; moist. ***Clayey Sand (SC)*** Gray/brown, clayey sand, soft; saturated.	
30							

Geologist(s): Michael J. Gelles

Subcontractor: Kilman Brothers, Inc.

Driller/Operator: Rick Cox

Method: Air Rotary

WSP Environmental Strategies
11911 Freedom Drive; Suite 900
Reston, VA 20190
703-709-6500

Boring Log: MW-12

Project: Rathon

Project No.: 122492-E

Location: Chamblee, Georgia

Completion Date: June 28, 2007

Surface Elevation (feet AMSL*): Not Determined

TOC Elevation (feet AMSL*):

Total Depth (feet): 65

Borehole Diameter (inches): 12/6

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
	7	0		100		***Clayey Sand (SC)*** Orange brown, saprolite, weathered, hard; moist.	
						Clayey Sand (SC) Gray/brown, clayey sand, soft; saturated.	
35						***Fat Clay (CH)*** Orange brown, saprolite, weathered, hard; moist.	
40	8	0		100			
45						Saprolitic biotite gneiss, dark gray, wet.	
50							
55	9	0		100			
60							

Geologist(s): Michael J. Gelles

Subcontractor: Kilman Brothers, Inc.

Driller/Operator: Rick Cox

Method: Air Rotary

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Reston, VA 20190
703-709-6500

Boring Log: MW-12

Project: Rathon
Project No.: 122492-E
Location: Chamblee, Georgia
Completion Date: June 28, 2007

Surface Elevation (feet AMSL*): Not Determined
TOC Elevation (feet AMSL*):
Total Depth (feet): 65
Borehole Diameter (inches): 12/6
**AMSL = Above mean sea level*

Sample Data					Subsurface Profile		
Depth	Sample/Interval	PID/OVM (ppm)	Blow Count	% Recovery	Lithology	Description	Well Details
						Saprolitic biotite gneiss, dark gray, wet. *(continued)*	
65						Bottom of Boring at 65 feet	
70							
75							
80							
85							
90							

Geologist(s): Michael J. Gelles
Subcontractor: Kilman Brothers, Inc.
Driller/Operator: Rick Cox
Method: Air Rotary

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Appendix E
Risk Reduction Standard Derivations

Cleanup Standards

Groundwater

For each constituent of concern, the groundwater cleanup standard is the ***higher*** of the Type 3 or Type 4 RRS for the compound. Type 3 RRS represent standards below which there is no significant risk of harm to human health, on the basis of standardized non-residential assumptions. Type 4 RRS represent standards below which there is no significant risk of harm to human health, on the basis of site-specific risk assessment for a non-residential receptor. Table 1 summarizes the Type 3 and 4 RRS for groundwater. Type 3 RRS for groundwater were obtained from Table 1 of Appendix III of the RRS regulations. For constituents not listed in the table, the Type 3 RRS is the higher of the background concentration or the laboratory detection limit.

Site-specific risk-based Type 4 RRS were calculated using equations obtained from RAGS Part B, using non-residential exposure parameters as specified in Appendix I Table 3 of the HSRA regulations. These Type 4 RRS calculations relied on a combination of both default and site-specific exposure assumptions. For constituents which are considered volatile, the inhalation pathway must be considered when calculating risk-based standards. As part of the site-specific approach for this Site, the default daily inhalation rate of 20 m^3/day was adjusted by a factor of one-third to a site-specific inhalation rate of 6.67 m^3/day. This is to account for the fact that a typical workday lasts 8 hours in duration, while the default inhalation rate assumes continuous 24-hour exposure throughout the day, which is more relevant to residential versus commercial/industrial exposures. This approach is consistent with USEPA's Risk Assessment Guidance[1] and with exposure assumptions used by USEPA to calculate soil screening levels[2], as well as sub-slab soil gas and indoor air screening levels to evaluate vapor intrusion[3] for non-residential exposure scenarios.

Soil

Soils are categorized by depth for purposes of calculating RRS. "Surface soils" (SS) are defined as soils located within 2 feet of the ground surface, while "sub-surface soils" (SB) refer to any soils above the groundwater zone at the site. For each constituent of concern, the soil cleanup standard is the ***higher*** of the Type 3 or Type 4 RRS for the applicable soil depth. Table 2 summarizes the Type 3 and 4 RRS for surface and sub-surface soils.

Type 3 and 4 RRS were calculated as specified in Sections 8 and 9, respectively, of the RRS guidance. Consistent with the approach used for Type 4 groundwater RRS, the default daily inhalation rate of 20 m^3/day was adjusted to account for the 8-hour length of a typical workday when calculating risk-based soil concentrations for site-specific Type 4 RRS.

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[1] USEPA, 2009. Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment), Final. U.S. Environmental Protection Agency, Washington, DC, EPA-540-R-070-002. January 2009.

[2] USEPA, 2012. Regional Screening Table – User's Guide. U.S. Environmental Protection Agency, Washington, DC, updated November 2012. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm.

[3] USEPA, 2012. Vapor Intrusion Screening Level (VISL) Calculator: User's Guide. U.S. Evironmental Protection Agency, Washington, DC, updated March 2012.

In addition, note that, in accordance with Item 1 of Section 9(d) of the RRS regulations (391-3-19-.07), the Type 4 site-specific RRS must take into account the potential for contaminants in soil to leach into groundwater. Therefore, the leachate model provided in USEPA's Soil Screening Guidance[4] was used to back-calculate contaminant concentrations in soil which would not result in groundwater exceedances of applicable RRS. The model includes a dilution attenuation factor (DAF) of 20 to account for reductions in contaminant concentration due to natural processes occurring in the subsurface. A DAF of one (1) is recommended where there is no dilution or attenuation anticipated between the source and the receptor well. [5] In accordance with EPD comments received on June 15, 2012, if the maximum concentration of a contaminant was detected in groundwater above the applicable RRS, a DAF of 1 was used in the leachate model to calculate the corresponding soil Type 4 RRS for that contaminant; otherwise, the default DAF value of 20 was retained. Table 2 presents Type 4 RRS for surface and sub-surface soils calculated with both DAF values. Table 3 compares groundwater data collected in 2011 and 2012 to applicable standards, summarizes the DAF selection process, and presents the resultant soil RRS for each contaminant. Refer to Figure 1 for a summary of the RRS selection process for soil and groundwater.

Delineation Standards

Type 1 RRS, which represent standards below which there is no significant risk of harm to human health based on standardized exposure assumptions for residential properties/usage, are identified as applicable delineation standards for contaminants at the site. Type 1 groundwater RRS are the same as Type 3 groundwater RRS, while soil RRS are calculated in accordance with Section 6(c) of the RRS guidance. Both soil and groundwater RRS are summarized in Table 4.

[4] USEPA, 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. U.S. Environmental Protection Agency, Washington, DC, OSWER 9355.4-24. December 2002.
[5] Ibid, Appendix A.

Figure 1. Selection of Risk Reduction Standards (RRS): Decision Flow Chart

Step 1: Select groundwater RRS.

Step 2: Compare groundwater concentrations to RRS.

Step 3: Calculate Type 4 soil RRS.
DAF = Dilution Attenuation Factor, used to calculate leachate concentrations. Values are based on EPD comments; see text.

Step 4: Select soil RRS.

Step 5: Compare soil concentrations to RRS.

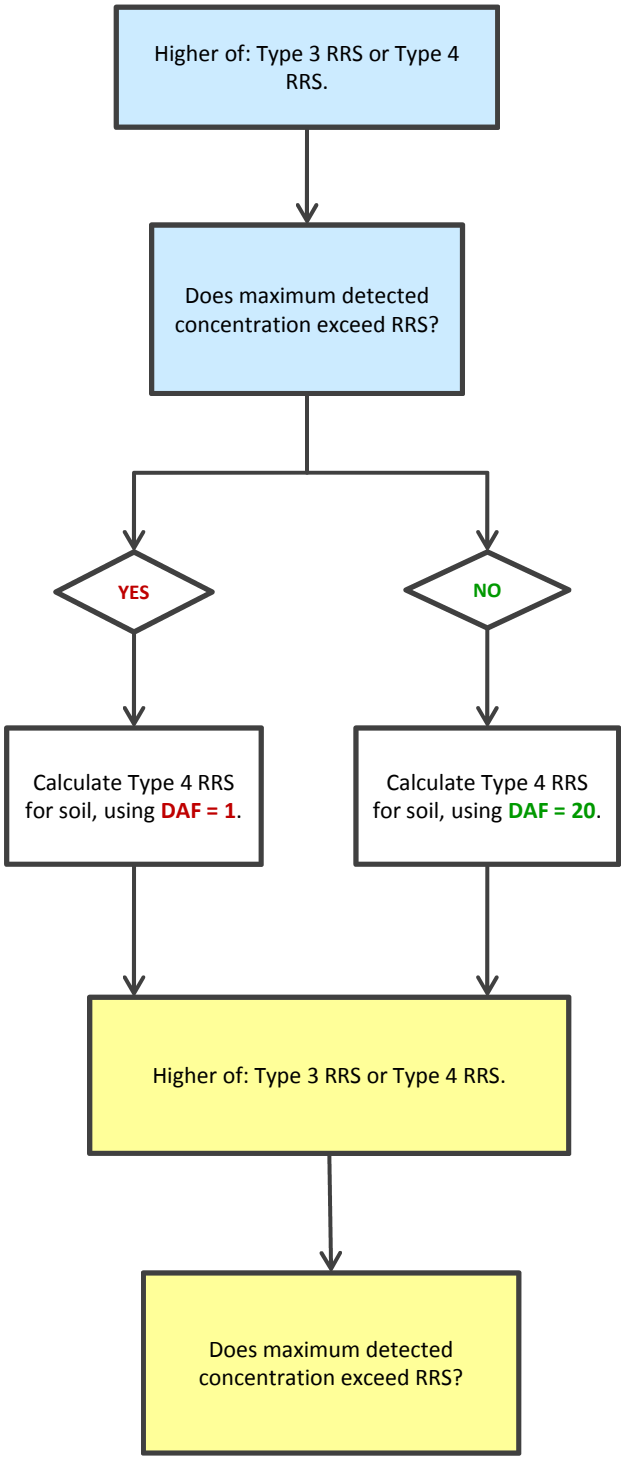


Table 1
Summary of Type 3 and Type 4 RRS for Groundwater
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent		Type 3 RRS (mg/L)	Type 4 RRS (mg/L)	RSS to Use
Volatile Organic Compounds				
Acetone	67-64-1	4.0	68.8	Type 4
Benzene	71-43-2	0.005	0.02	Type 4
Bromoform	75-25-2	0.08	0.14	Type 4
2-Butanone	78-93-3	2.0	25.6	Type 4
Carbon Disulfide	75-15-0	4.0	3.83	Type 3
Chlorobenzene	108-90-7	0.10	0.355	Type 4
Chloroethane	75-00-3	DL	87.6	Type 4
Cyclohexane	110-82-7	DL	52.4	Type 4
1,2-Dibromo-3-Chloropropane	96-12-8	0.0002	0.00004	Type 3
1,2-Dichlorobenzene	95-50-1	0.60	1.47	Type 4
1,3-Dichlorobenzene	541-73-1	0.60	1.47	Type 4
1,4-Dichlorobenzene	106-46-7	0.075	0.021	Type 3
Dichlorodifluoromethane	75-71-8	1.0	1.61	Type 4
1,1-Dichloroethane	75-34-3	4.0	1.17	Type 3
1,2-Dichloroethane	107-06-2	0.005	0.073	Type 4
1,1-Dichloroethene	75-35-4	0.007	1.30	Type 4
cis-1,2-dichloroethene	156-59-2	0.07	0.20	Type 4
trans-1,2-dichloroethene	156-60-5	0.10	0.42	Type 4
1,2-Dichloropropane	78-87-5	0.005	0.019	Type 4
Ethylbenzene	100-41-4	0.7	0.071	Type 3
Isopropylbenzene (cumene)	98-82-8	DL	2.54	Type 4
4-Methyl-2-pentanone	108-10-1	2.0	6.24	Type 4
Methylene chloride	75-09-2	0.005	0.39	Type 4
Styrene	100-42-5	0.10	6.12	Type 4
1,1,1,2-Tetrachloroethane	630-20-6	0.07	0.25	Type 4
1,1,2,2-Tetrachloroethane	79-34-5	DL/0.0002	0.0033	Type 4
Tetrachloroethylene	127-18-4	0.005	0.22	Type 4
Toluene	108-88-3	1.0	6.89	Type 4
1,2,4-Trichlorobenzene	120-82-1	0.07	0.017	Type 3
1,1,1-Trichloroethane	71-55-6	0.20	36.1	Type 4
1,1,2-Trichloroethane	79-00-5	0.005	0.12	Type 4
Trichloroethylene	79-01-6	0.005	0.013	Type 4
1,2,3-Trichloropropane	96-18-4	0.04	0.000095	Type 3
Vinyl Chloride	75-01-4	0.002	0.0037	Type 4
Xylenes	1330-20-7	10.0	0.84	Type 3
Semivolatile Organic Compounds				
Acenaphthene	83-32-9	2.0	6.13	Type 4
Acenaphthylene	208-96-8	DL	30.66	Type 4
Acetophenone	98-86-2	4.0	10.2	Type 4
Anthracene	120-12-7	DL	30.7	Type 4
Benzo(a)anthracene	56-55-3	0.0001	0.0014	Type 4
Benzo(a)pyrene	50-32-8	0.0002	0.00014	Type 3
Benzo(b)fluoranthene	205-99-2	0.0002	0.0014	Type 4
Benzo(g,h,i)perylene	191-24-2	DL	30.7	Type 4
Benzo(k)fluoranthene	207-08-9	DL	0.0021	Type 4
bis(2-chloroisopropyl)ether	108-60-1	DL	0.041	Type 4
bis(2-ethylhexyl)phthalate	117-81-7	0.006	0.068	Type 4
2-Chlorophenol	95-57-8	0.04	0.51	Type 4
Chrysene	218-01-9	0.33	0.021	Type 3
Dibenzo(a,h)anthracene	53-70-3	0.0003	0.00013	Type 3
2,4-Dichlorophenol	120-83-2	0.02	0.31	Type 4
Di-n-butylphthalate	84-74-2	4.0	10.2	Type 4
2,4-Dimethylphenol	105-67-9	0.7	2.04	Type 4
2,4-Dinitrophenol	51-28-5	0.0017	0.20	Type 4
Di-n-octylphthalate	117-84-0	0.7	NA	Type 4
Fluoranthene	206-44-0	1.0	4.09	Type 4
Fluorene	86-73-7	1.0	4.09	Type 4
Indeno(1,2,3-cd)pyrene	193-39-5	0.0004	0.0014	Type 4
2-Methylphenol	95-48-7	DL	2.58	Type 4
4-Methylphenol	106-44-5	DL	3.45	Type 4
Naphthalene	91-20-3	0.02	0.026	Type 4
N-Nitrosodiphenylamine	86-30-6	DL	0.082	Type 4
Pentachlorophenol	87-86-5	0.001	0.0062	Type 4
Phenanthrene	85-01-8	DL	30.7	Type 4
Phenol	108-95-2	4.0	1.65	Type 3
Pyrene	129-00-0	1.0	3.07	Type 4
2,4,5-Trichlorophenol	95-95-4	4.0	10.2	Type 4
2,4,6-Trichlorophenol	88-06-2	0.03	0.061	Type 4
Pesticides / Polychlorinated Biphenyls				
Aroclor 1016	12674-11-2	0.0005	0.0072	Type 4
Aroclor 1260	11096-82-5	0.0005	3.30E-04	Type 3
Aldrin	309-00-2	0.0017	3.86E-05	Type 3
alpha-Endosulfan	95-99-98	0.002	0.61	Type 4
alpha-BHC	319-84-6	0.0017	0.0001	Type 3
beta-BHC	319-85-7	0.0017	0.0004	Type 3
beta-Endosulfan	33213-65-9	0.002	0.61	Type 4
Chlordane	12789-03-6	0.002	0.0019	Type 3
delta-BHC	319-86-8	DL	0.0005	Type 4
DDD	72-54-8	0.0001	0.0028	Type 4
DDE	72-55-9	0.0001	0.0019	Type 4
DDT	50-29-3	0.0001	0.0019	Type 4
Dieldrin	60-57-1	2.00E-05	4.13E-05	Type 4
Endosulfan sulfate	1031-07-8	0.0001	0.61	Type 4
Endrin	72-20-8	0.002	0.031	Type 4
Endrin aldehyde	7421-93-4	0.0001	0.031	Type 4
Endrin ketone	53494-70-5	0.0001	0.031	Type 4
Heptachlor epoxide	1024-57-3	0.0002	7.26E-05	Type 3
Lindane	58-89-9	0.0002	0.0006	Type 4
Methoxychlor	72-43-5	0.04	0.51	Type 4

Notes:
mg/L = Milligrams per liter
NA = Not available
DL = Analytical detection limit
Blue shaded cells represent the higher of Type 3 or Type 4 RRS for groundwater.

Table 2
Summary of Type 3 and Type 4 RRS for Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent		Type 3 RRS		Type 4 RRS			
				DAF = 1		DAF = 20	
		SS (mg/kg)	SB (mg/kg)	SS (mg/kg)	SB (mg/kg)	SS (mg/kg)	SB (mg/kg)
Volatile Organic Compounds							
Acetone	67-64-1	400	400	17.0	17.0	340	340
Benzene	71-43-2	0.50	0.50	0.061	0.061	1.23	1.23
Bromoform	75-25-2	8.00	8.00	0.12	0.12	2.31	2.31
2-Butanone	78-93-3	200	200	7.42	7.42	148	148
Carbon Disulfide	75-15-0	400	400	2.75	2.75	55.0	55.0
Chlorobenzene	108-90-7	10.0	10.0	1.73	1.73	34.7	34.7
Chloroethane	75-00-3	1.00	1.00	59	59	1,182	1,182
Cyclohexane	110-82-7	20.0	20.0	192	192	3,842	3,842
1,2-Dibromo-3-Chloropropane	96-12-8	0.02	0.02	0.0005	0.0005	0.010	0.010
1,2-Dichlorobenzene	95-50-1	60.0	60.0	11.6	11.6	231	231
1,3-Dichlorobenzene	541-73-1	60.0	60.0	18.43	18.43	369	369
1,4-Dichlorobenzene	106-46-7	7.50	7.50	0.58	0.58	11.6	11.6
Dichlorodifluoromethane	75-71-8	48.9	100	3.75	3.75	75.0	75.0
1,1-Dichloroethane	75-34-3	400	400	3.43	3.43	68.6	68.6
1,2-Dichloroethane	107-06-2	0.50	0.50	0.072	0.072	1.45	1.45
1,1-Dichloroethene	75-35-4	0.70	0.70	1.21	1.21	24.3	24.3
cis-1,2-dichloroethene	156-59-2	7.00	7.00	0.21	0.21	4.12	4.12
trans-1,2-dichloroethene	156-60-5	10.0	10.0	0.42	0.42	8.36	8.36
1,2-Dichloropropane	78-87-5	0.50	0.50	0.027	0.027	0.53	0.53
Ethylbenzene	100-41-4	70.0	70.0	6.41	6.41	128	128
Isopropylbenzene (cumene)	98-82-8	21.9	21.9	36.0	36.0	720	720
4-Methyl-2-pentanone	108-10-1	200	200	2.82	2.82	56.4	56.4
Methylene chloride	75-09-2	0.50	0.50	0.25	0.25	5.05	5.05
Styrene	100-42-5	14.0	14.0	55.9	55.9	1,118	1,118
1,1,1,2-Tetrachloroethane	630-20-6	7.00	7.00	0.49	0.49	9.83	9.83
1,1,2,2-Tetrachloroethane	79-34-5	0.13	0.13	0.0068	0.0068	0.14	0.14
Tetrachloroethylene	127-18-4	0.50	0.50	0.47	0.47	9.41	9.41
Toluene	108-88-3	100	100	33.8	33.8	676	676
1,2,4-Trichlorobenzene	120-82-1	10.8	10.8	1.91	1.91	38.3	38.3
1,1,1-Trichloroethane	71-55-6	20.0	20.0	41.2	41.2	824	824
1,1,2-Trichloroethane	79-00-5	0.50	0.50	0.17	0.17	3.33	3.33
Trichloroethylene	79-01-6	0.50	0.50	0.019	0.019	0.38	0.38
1,2,3-Trichloropropane	96-18-4	1.19	4.00	0.10	0.10	1.91	2.06
Vinyl Chloride	75-01-4	0.20	0.20	0.0027	0.0027	0.055	0.055
Xylenes	1330-20-7	1,000	1,000	78.8	78.8	1,575	1,575
Semivolatile Organic Compounds							
Acenaphthene	83-32-9	300	300	618	618	12,355	12,355
Acenaphthylene	208-96-8	130	130	4248	4,248	84969	84,969
Acetophenone	98-86-2	400	400	12.6	12.6	253	253
Anthracene	120-12-7	500	500	10,038	10,038	200,762	100,000
Benzo(a)anthracene	56-55-3	5.00	5.00	5.03	5.03	78.4	101
Benzo(a)pyrene	50-32-8	1.64	1.64	2.35	2.35	7.84	47.0
Benzo(b)fluoranthene	205-99-2	5.00	5.00	17.0	17.0	78.4	341
Benzo(g,h,i)perylene	191-24-2	500	500	613,200	100,000	613,200	100,000
Benzo(k)fluoranthene	207-08-9	5.00	5.00	24.8	24.8	496	496
bis(2-chloroisopropyl)ether	108-60-1	171	171	0.058	0.058	1.16	1.16
bis(2-ethylhexyl)phthalate	117-81-7	50.0	50.0	163	163	3,260	3,260
2-Chlorophenol	95-57-8	4.00	4.00	3.23	3.23	65	65
Chrysene	218-01-9	33.0	33.0	1,191	1,191	7,839	23,827
Dibenzo(a,h)anthracene	53-70-3	5.00	5.00	7.84	11.5	7.84	229.4
2,4-Dichlorophenol	120-83-2	2.00	2.00	3.08	3.08	61.5	61.5
Di-n-butylphthalate	84-74-2	400	400	239	239	4,771	4,771
2,4-Dimethylphenol	105-67-9	70.0	70.0	20.5	20.5	410	410
2,4-Dinitrophenol	51-28-5	3.30	3.30	1.92	1.92	38.5	38.5
Di-n-octylphthalate	117-84-0	70.0	70.0	1,164,800	100,000	23,296,003	100,000
Fluoranthene	206-44-0	500	500	4,534	4,534	81,760	90,688
Fluorene	86-73-7	360	360	750	750	14,995	14,995
Indeno(1,2,3-cd)pyrene	193-39-5	5.00	5.00	55.5	55.5	78.4	1,109
2-Methylphenol	95-48-7	3.80	3.80	16.3	16.3	327	327
4-Methylphenol	106-44-5	3.80	3.80	21.4	21.4	428.6	428.6
Naphthalene	91-20-3	100	100	0.81	0.81	16.1	16.1
N-Nitrosodiphenylamine	86-30-6	6.46	6.46	4.33	4.33	86.7	86.7
Pentachlorophenol	87-86-5	3.30	3.30	0.62	0.62	12.4	12.4
Phenanthrene	85-01-8	110	110	8,668	8,668	173,352	100,000
Phenol	108-95-2	400	400	15.8	15.8	316	316
Pyrene	129-00-0	500	500	3,333	3,333	61,320	66,655
2,4,5-Trichlorophenol	95-95-4	400	400	365	365	7,305	7,305
2,4,6-Trichlorophenol	88-06-2	3.00	3.00	2.17	2.17	43.4	43.4
Pesticides / Polychlorinated Biphenyls							
Aroclor 1016	12674-11-2	1.55	1.55	6.83	6.83	137	137
Aroclor 1260	11096-82-5	1.55	1.55	3.50	3.50	28.6	69.9
Aldrin	309-00-2	0.66	0.66	2.79	2.79	3.37	55.8
alpha-Endosulfan	95-99-98	10.0	10.0	194	194	3,890	3,890
alpha-BHC	319-84-6	0.66	0.66	0.10	0.10	1.92	1.92
beta-BHC	319-85-7	0.66	0.66	0.10	0.10	1.92	1.92
beta-Endosulfan	33213-65-9	10.0	10.0	194	194	3,890	3,890
Chlordane	12789-03-6	9.20	9.20	1.35	1.35	27.0	27.0
delta-BHC	319-86-8	25.0	25.0	0.091	0.091	1.83	1.83
DDD	72-54-8	0.66	0.66	6.47	6.47	129	129
DDE	72-55-9	0.66	0.66	4.57	4.57	91.4	91.4
DDT	50-29-3	0.66	0.66	6.56	6.56	131	131
Dieldrin	60-57-1	0.66	0.66	0.017	0.017	0.33	0.33
Endosulfan sulfate	1031-07-8	1.65	1.65	120.923	121	2418.46	2,418
Endrin	72-20-8	10.0	10.0	12.3	12.3	247	247
Endrin aldehyde	7421-93-4	10.0	10.0	2.011	2	40.226	40
Endrin ketone	53494-70-5	10.0	10.0	5.966	6	119.33	119
Heptachlor epoxide	1024-57-3	1.65	1.65	0.040	0.040	0.81	0.81
Lindane	58-89-9	0.66	0.66	0.034	0.034	0.68	0.68
Methoxychlor	72-43-5	10.0	10.0	275	275	5,498	5,498

Notes:
mg/kg = Milligrams per kilogram
DAF = Dilution attenuation factor used in the leachate model to derive Type 4 RRS. A DAF value of 1 is used if the maximum concentration detected in groundwater exceeds the applicable standard; otherwise the default value of 20 is used.
SS = Surface soils, located from 0-2' below ground surface
SB = Sub-surface soils, located >2' below ground surface
Green shaded cells indicate that Type 3 RRS is greater than all Type 4 RRS values for the applicable soil depth.
Orange shaded cells indicate that Type 4 RRS is greater than Type 3 RRS for the applicable soil depth.

Table 3
Selection of Soil RRS Based on Groundwater Analytical Results
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent		Groundwater RRS (mg/L)	Groundwater RRS Type	Max Detected Concentration* (mg/L)	Detected Above RRS?	Leachate Model DAF** (unitless)	SS Soil RRS (mg/kg)	SS Soil RRS Type	SB Soil RRS (mg/kg)	SB Soil RRS Type
Volatile Organic Compounds										
Acetone	67-64-1	68.8	Type 4	56	No	20	400	Type 3	400	Type 3
Benzene	71-43-2	0.020	Type 4	0.018	No	20	1.23	Type 4	1.23	Type 4
Bromoform	75-25-2	0.14	Type 4	--	--	20	8.0	Type 3	8.0	Type 3
2-Butanone	78-93-3	25.6	Type 4	0.098	No	20	200	Type 3	200	Type 3
Carbon Disulfide	75-15-0	4.0	Type 3	--	--	20	400	Type 3	400	Type 3
Chlorobenzene	108-90-7	0.35	Type 4	0.26	No	20	34.7	Type 4	34.7	Type 4
Chloroethane	75-00-3	87.6	Type 4	0.55	No	20	1,182	Type 4	1,182	Type 4
Cyclohexane	110-82-7	52.4	Type 4	--	--	20	3,842	Type 4	3,842	Type 4
1,2-Dibromo-3-Chloropropane	96-12-8	0.0002	Type 3	--	--	20	0.02	Type 3	0.02	Type 3
1,2-Dichlorobenzene	95-50-1	1.47	Type 4	3.2	Yes	1	60.0	Type 3	231	Type 4
1,3-Dichlorobenzene	541-73-1	1.47	Type 4	0.08	No	20	369	Type 4	369	Type 4
1,4-Dichlorobenzene	106-46-7	0.075	Type 3	0.31	Yes	1	7.5	Type 3	11.6	Type 4
Dichlorodifluoromethane	75-71-8	1.61	Type 4	--	--	20	75.0	Type 4	100	Type 3
1,1-Dichloroethane	75-34-3	4.0	Type 3	1.7	No	20	400	Type 3	400	Type 3
1,2-Dichloroethane	107-06-2	0.073	Type 4	0.0093	No	20	1.45	Type 4	1.45	Type 4
1,1-Dichloroethene	75-35-4	1.30	Type 4	2.1	Yes	1	1.21	Type 4	24.3	Type 4
cis-1,2-dichloroethene	156-59-2	0.20	Type 4	14	Yes	1	7.0	Type 3	7.0	Type 3
trans-1,2-dichloroethene	156-60-5	0.42	Type 4	0.14	No	20	10.0	Type 3	10.0	Type 3
1,2-Dichloropropane	78-87-5	0.019	Type 4	--	--	20	0.53	Type 4	0.53	Type 4
Ethylbenzene	100-41-4	0.70	Type 3	0.025	No	20	128	Type 4	128	Type 4
Isopropylbenzene (cumene)	98-82-8	2.54	Type 4	--	--	20	720	Type 4	720	Type 4
4-Methyl-2-pentanone	108-10-1	6.24	Type 4	0.24	No	20	200	Type 3	200	Type 3
Methylene chloride	75-09-2	0.39	Type 4	0.0061	No	20	5.05	Type 4	5.05	Type 4
Styrene	100-42-5	6.12	Type 4	0.016	No	20	1,118	Type 4	1,118	Type 4
1,1,1,2-Tetrachloroethane	630-20-6	0.25	Type 4	--	--	20	9.83	Type 4	9.83	Type 4
1,1,2,2-Tetrachloroethane	79-34-5	0.0033	Type 4	--	--	20	0.14	Type 4	0.14	Type 4
Tetrachloroethylene	127-18-4	0.22	Type 4	6.8	Yes	1	0.50	Type 3	9.41	Type 4
Toluene	108-88-3	6.89	Type 4	8.3	Yes	1	100	Type 3	676	Type 4
1,2,4-Trichlorobenzene	120-82-1	0.07	Type 3	0.61	Yes	1	10.8	Type 3	38.3	Type 4
1,1,1-Trichloroethane	71-55-6	36.1	Type 4	33.0	No	20	824	Type 4	824	Type 4
1,1,2-Trichloroethane	79-00-5	0.117	Type 4	--	--	20	3.33	Type 4	3.33	Type 4
Trichloroethylene	79-01-6	0.013	Type 4	1	Yes	1	0.50	Type 3	0.50	Type 3
1,2,3-Trichloropropane	96-18-4	0.04	Type 3	--	--	20	1.91	Type 4	4.0	Type 3
Vinyl Chloride	75-01-4	0.0037	Type 4	0.34	Yes	1	0.20	Type 3	0.20	Type 3
Xylenes	1330-20-7	10.0	Type 3	0.18	No	20	1,575	Type 4	1,575	Type 4
Semivolatile Organic Compounds										
Acenaphthene	83-32-9	6.13	Type 4	0.01	No	20	12,355	Type 4	12,355	Type 4
Acenaphthylene	208-96-8	30.7	Type 4	--	--	20	84,969	Type 4	84,969	Type 4
Acetophenone	98-86-2	10.2	Type 4	0.022	No	20	400	Type 3	400	Type 3
Anthracene	120-12-7	30.7	Type 4	--	--	20	200,762	Type 4	100,000	Type 4
Benzo(a)anthracene	56-55-3	0.0014	Type 4	--	--	20	78.4	Type 4	101	Type 4
Benzo(a)pyrene	50-32-8	0.0002	Type 3	--	--	20	7.84	Type 4	47.0	Type 4
Benzo(b)fluoranthene	205-99-2	0.0014	Type 4	0.01	Yes	1	17.0	Type 4	341	Type 4
Benzo(g,h,i)perylene	191-24-2	30.7	Type 4	--	--	20	613,200	Type 4	100,000	Type 4
Benzo(k)fluoranthene	207-08-9	0.0021	Type 4	--	--	20	496	Type 4	496	Type 4
bis(2-chloroisopropyl)ether	108-60-1	0.041	Type 4	--	--	20	171	Type 3	171	Type 3
bis(2-ethylhexyl)phthalate	117-81-7	0.068	Type 4	--	--	20	3,260	Type 4	3,260	Type 4
2-Chlorophenol	95-57-8	0.51	Type 4	0.029	No	20	64.7	Type 4	64.7	Type 4
Chrysene	218-01-9	0.33	Type 3	--	--	20	7,839	Type 4	23,827	Type 4
Dibenzo(a,h)anthracene	53-70-3	0.0003	Type 3	--	--	20	7.84	Type 4	229.44	Type 4
2,4-Dichlorophenol	120-83-2	0.31	Type 4	--	--	20	61.5	Type 4	61.5	Type 4
Di-n-butylphthalate	84-74-2	10.22	Type 4	--	--	20	4,771	Type 4	4,771	Type 4
2,4-Dimethylphenol	105-67-9	2.04	Type 4	0.015	No	20	410	Type 4	410	Type 4
2,4-Dinitrophenol	51-28-5	0.20	Type 4	--	--	20	38.5	Type 4	38.5	Type 4
Di-n-octylphthalate	117-84-0	0.7	Type 3	--	--	20	23,296,003	Type 4	100,000	Type 4
Fluoranthene	206-44-0	4.09	Type 4	--	--	20	81,760	Type 4	90,688	Type 4
Fluorene	86-73-7	4.09	Type 4	--	--	20	14,995	Type 4	14,995	Type 4
Indeno(1,2,3-cd)pyrene	193-39-5	0.0014	Type 4	--	--	20	78.4	Type 4	1,109	Type 4
2-Methylphenol	95-48-7	2.58	Type 4	0.049	No	20	327	Type 4	327	Type 4
4-Methylphenol	106-44-5	3.45	Type 4	0.1	No	20	429	Type 4	429	Type 4
Naphthalene	91-20-3	0.03	Type 4	0.56	Yes	1	100	Type 3	100	Type 3
N-Nitrosodiphenylamine	86-30-6	0.082	Type 4	--	--	20	86.7	Type 4	86.7	Type 4
Pentachlorophenol	87-86-5	0.0062	Type 4	--	--	20	12.4	Type 4	12.4	Type 4
Phenanthrene	85-01-8	30.7	Type 4	--	--	20	173,352	Type 4	100,000	Type 4
Phenol	108-95-2	4.0	Type 3	0.01	No	20	400	Type 3	400	Type 3
Pyrene	129-00-0	3.07	Type 4	--	--	20	61,320	Type 4	66,655	Type 4
2,4,5-Trichlorophenol	95-95-4	10.2	Type 4	--	--	20	7,305	Type 4	7,305	Type 4
2,4,6-Trichlorophenol	88-06-2	0.06	Type 4	--	--	20	43.4	Type 4	43.4	Type 4
Pesticides / Polychlorinated Biphenyls										
Aroclor 1016	12674-11-2	0.0072	Type 4	0.0057	No	20	137	Type 4	137	Type 4
Aroclor 1260	11096-82-5	0.0005	Type 3	0.0021	Yes	1	3.50	Type 4	69.9	Type 4
Aldrin	309-00-2	0.0017	Type 3	--	--	20	3.37	Type 4	55.78	Type 4
alpha-Endosulfan	95-99-98	0.61	Type 4	--	--	20	3,890	Type 4	3,890	Type 4
alpha-BHC	319-84-6	0.0017	Type 3	--	--	20	1.92	Type 4	1.92	Type 4
beta-BHC	319-85-7	0.0017	Type 3	0.00021	No	20	1.92	Type 4	1.92	Type 4
beta-Endosulfan	33213-65-9	0.61	Type 4	--	--	20	3,890	Type 4	3,890	Type 4
Chlordane	12789-03-6	0.002	Type 3	0.0003	No	20	27.0	Type 4	27.0	Type 4
delta-BHC	319-86-8	0.00054	Type 4	--	--	20	25.0	Type 3	25.0	Type 3
DDD	72-54-8	0.0028	Type 4	0.0015	No	20	129	Type 4	129	Type 4
DDE	72-55-9	0.0019	Type 4	0.00019	No	20	91.4	Type 4	91.4	Type 4
DDT	50-29-3	0.0019	Type 4	--	--	20	131	Type 4	131	Type 4
Dieldrin	60-57-1	4.13E-05	Type 4	--	--	20	0.66	Type 3	0.66	Type 3
Endosulfan sulfate	1031-07-8	DL	Type 4	--	--	20	2,418	Type 4	2,418	Type 4
Endrin	72-20-8	0.031	Type 4	--	--	20	247	Type 4	247	Type 4
Endrin aldehyde	7421-93-4	DL	Type 4	--	--	20	40.2	Type 4	40	Type 4
Endrin ketone	53494-70-5	DL	Type 4	--	--	20	119	Type 4	119	Type 4
Heptachlor epoxide	1024-57-3	0.0002	Type 3	--	--	20	1.65	Type 3	1.65	Type 3
Lindane	58-89-9	0.00061	Type 4	--	--	20	0.68	Type 4	0.68	Type 4
Methoxychlor	72-43-5	0.51	Type 4	--	--	20	5,498	Type 4	5,498	Type 4

Notes:
mg/L = Milligrams per liter
mg/kg = Milligrams per kilogram
SS = Surface soils, located from 0-2' below ground surface
SB = Sub-surface soils, located >2' below ground surface
* Groundwater samples collected from site wells in 2011 and 2012 were evaluated.
**DAF = Dilution attenuation factor used in the calculation of groundwater levels resulting from soil leachate. A DAF value of 1 is used if the maximum concentration detected in groundwater exceeds the applicable standard; otherwise the default value of 20 is used. See text for discussion.
-- = Not applicable

Table 4
Delination Standards for Groundwater and Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent		Type 1 GW RRS (mg/L)	Type 1 Soil RRS (mg/kg)
Volatile Organic Compounds			
Acetone	67-64-1	4.00E+00	4.00E+02
Benzene	71-43-2	5.00E-03	5.00E-01
Bromoform	75-25-2	8.00E-02	8.00E+00
2-Butanone	78-93-3	2.00E+00	2.00E+02
Carbon Disulfide	75-15-0	4.00E+00	4.00E+02
Chlorobenzene	108-90-7	1.00E-01	1.00E+01
Chloroethane	75-00-3	DL	1.00E+00
Cyclohexane	110-82-7	DL	2.00E+01
1,2-Dibromo-3-Chloropropane	96-12-8	2.00E-04	2.00E-02
1,2-Dichlorobenzene	95-50-1	6.00E-01	6.00E+01
1,3-Dichlorobenzene	541-73-1	6.00E-01	6.00E+01
1,4-Dichlorobenzene	106-46-7	7.50E-02	7.50E+00
Dichlorodifluoromethane	75-71-8	1.00E+00	4.65E+01
1,1-Dichloroethane	75-34-3	4.00E+00	4.00E+02
1,2-Dichloroethane	107-06-2	5.00E-03	5.00E-01
1,1-Dichloroethene	75-35-4	7.00E-03	7.00E-01
cis-1,2-dichloroethene	156-59-2	7.00E-02	7.00E+00
trans-1,2-dichloroethene	156-60-5	1.00E-01	1.00E+01
1,2-Dichloropropane	78-87-5	5.00E-03	5.00E-01
Ethylbenzene	100-41-4	7.00E-01	7.00E+01
Isopropylbenzene (cumene)	98-82-8	DL	2.19E+01
4-Methyl-2-pentanone	108-10-1	2.00E+00	2.00E+02
Methylene chloride	75-09-2	5.00E-03	5.00E-01
Styrene	100-42-5	1.00E-01	1.40E+01
1,1,1,2-Tetrachloroethane	630-20-6	7.00E-02	7.00E+00
1,1,2,2-Tetrachloroethane	79-34-5	DL/0.0002	1.30E-01
Tetrachloroethylene	127-18-4	5.00E-03	5.00E-01
Toluene	108-88-3	1.00E+00	1.00E+02
1,2,4-Trichlorobenzene	120-82-1	7.00E-02	1.08E+01
1,1,1-Trichloroethane	71-55-6	2.00E-01	2.00E+01
1,1,2-Trichloroethane	79-00-5	5.00E-03	5.00E-01
Trichloroethylene	79-01-6	5.00E-03	5.00E-01
1,2,3-Trichloropropane	96-18-4	4.00E-02	4.98E-01
Vinyl Chloride	75-01-4	2.00E-03	2.00E-01
Xylenes	1330-20-7	1.00E+01	1.00E+03
Semivolatile Organic Compounds			
Acenaphthene	83-32-9	2.00E+00	3.00E+02
Acenaphthylene	208-96-8	DL	1.30E+02
Acetophenone	98-86-2	4.00E+00	4.00E+02
Anthracene	120-12-7	DL	5.00E+02
Benzo(a)anthracene	56-55-3	1.00E-04	5.00E+00
Benzo(a)pyrene	50-32-8	2.00E-04	1.64E+00
Benzo(b)fluoranthene	205-99-2	2.00E-04	5.00E+00
Benzo(g,h,i)perylene	191-24-2	DL	5.00E+02
Benzo(k)fluoranthene	207-08-9	DL	5.00E+00
bis(2-chloroisopropyl)ether	108-60-1	DL	1.71E+02
bis(2-ethylhexyl)phthalate	117-81-7	6.00E-03	5.00E+01
2-Chlorophenol	95-57-8	4.00E-02	4.00E+00
Chrysene	218-01-9	3.30E-01	3.30E+01
Dibenzo(a,h)anthracene	53-70-3	3.00E-04	2.05E+00
2,4-Dichlorophenol	120-83-2	2.00E-02	2.00E+00
Di-n-butylphthalate	84-74-2	4.00E+00	4.00E+02
2,4-Dimethylphenol	105-67-9	7.00E-01	7.00E+01
2,4-Dinitrophenol	51-28-5	1.70E-03	3.30E+00
Di-n-octylphthalate	117-84-0	7.00E-01	7.00E+01
Fluoranthene	206-44-0	1.00E+00	5.00E+02
Fluorene	86-73-7	1.00E+00	3.60E+02
Indeno(1,2,3-cd)pyrene	193-39-5	4.00E-04	5.00E+00
2-Methylphenol	95-48-7	DL	3.80E+00
4-Methylphenol	106-44-5	DL	3.80E+00
Naphthalene	91-20-3	2.00E-02	1.00E+02
N-Nitrosodiphenylamine	86-30-6	DL	6.46E+00
Pentachlorophenol	87-86-5	1.00E-03	3.30E+00
Phenanthrene	85-01-8	DL	1.10E+02
Phenol	108-95-2	4.00E+00	4.00E+02
Pyrene	129-00-0	1.00E+00	5.00E+02
2,4,5-Trichlorophenol	95-95-4	4.00E+00	4.00E+02
2,4,6-Trichlorophenol	88-06-2	3.00E-02	3.00E+00
Pesticides / Polychlorinated Biphenyls			
Aroclor 1016	12674-11-2	5.00E-04	1.55E+00
Aroclor 1260	11096-82-5	5.00E-04	1.55E+00
Aldrin	309-00-2	1.70E-03	6.60E-01
alpha-Endosulfan	95-99-98	2.00E-03	1.00E+01
alpha-BHC	319-84-6	1.70E-03	6.60E-01
beta-BHC	319-85-7	1.70E-03	6.60E-01
beta-Endosulfan	33213-65-9	2.00E-03	1.00E+01
Chlordane	12789-03-6	2.00E-03	9.20E+00
delta-BHC	319-86-8	DL	2.50E+01
DDD	72-54-8	1.00E-04	6.60E-01
DDE	72-55-9	1.00E-04	6.60E-01
DDT	50-29-3	1.00E-04	6.60E-01
Dieldrin	60-57-1	2.00E-05	6.60E-01
Endosulfan sulfate	1031-07-8	1.00E-04	1.65E+00
Endrin	72-20-8	2.00E-03	1.00E+01
Endrin aldehyde	7421-93-4	1.00E-04	1.00E+01
Endrin ketone	53494-70-5	1.00E-04	1.00E+01
Heptachlor epoxide	1024-57-3	2.00E-04	1.64E+00
Lindane	58-89-9	2.00E-04	6.60E-01
Methoxychlor	72-43-5	4.00E-02	1.00E+01

Notes:
NA = No value available
DL = Analytical detection limit
mg/L = Milligrams per liter
mg/kg = Milligrams per kilogram
Reference: Georgia EPD, Risk Reduction Standards, 391-3-19-.07.
Available online at: http://www.gaepd.org/Documents/hsraguideCSRRRS.html.

Table A-1
Calculation of Type 3 and Type 4 Risk Reduction Standards (RRS) for Groundwater
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	Calculated Non-Residential Target Concentrations (mg/L)		Type 3 GW RRS (mg/L)	Type 4 GW RRS (mg/L)	Value Used for Leachate Calculations (mg/L)
	Non-Cancer	Cancer			
Volatile Organic Compounds					
Acetone	6.88E+01	NA	4.00E+00	6.88E+01	6.88E+01
Benzene	1.60E-01	1.96E-02	5.00E-03	1.96E-02	1.96E-02
Bromoform	2.04E+00	1.38E-01	8.00E-02	1.38E-01	1.38E-01
2-Butanone	2.56E+01	NA	2.00E+00	2.56E+01	2.56E+01
Carbon Disulfide	3.83E+00	NA	4.00E+00	3.83E+00	4.00E+00
Chlorobenzene	3.55E-01	NA	1.00E-01	3.55E-01	3.55E-01
Chloroethane	8.76E+01	NA	DL	8.76E+01	8.76E+01
Cyclohexane	5.24E+01	NA	DL	5.24E+01	5.24E+01
1,2-Dibromo-3-Chloropropane	1.61E-03	4.04E-05	2.00E-04	4.04E-05	2.00E-04
1,2-Dichlorobenzene	1.47E+00	NA	6.00E-01	1.47E+00	1.47E+00
1,3-Dichlorobenzene	1.47E+00	NA	6.00E-01	1.47E+00	1.47E+00
1,4-Dichlorobenzene	3.54E+00	2.14E-02	7.50E-02	2.14E-02	7.50E-02
Dichlorodifluoromethane	1.61E+00	NA	1.00E+00	1.61E+00	1.61E+00
1,1-Dichloroethane	2.04E+01	1.17E+00	4.00E+00	1.17E+00	4.00E+00
1,2-Dichloroethane	5.96E-01	7.26E-02	5.00E-03	7.26E-02	7.26E-02
1,1-Dichloroethene	1.30E+00	NA	7.00E-03	1.30E+00	1.30E+00
cis-1,2-dichloroethene	2.04E-01	NA	7.00E-02	2.04E-01	2.04E-01
trans-1,2-dichloroethene	4.15E-01	NA	1.00E-01	4.15E-01	4.15E-01
1,2-Dichloropropane	3.36E-02	1.87E-02	5.00E-03	1.87E-02	1.87E-02
Ethylbenzene	4.72E+00	7.12E-02	7.00E-01	7.12E-02	7.00E-01
Isopropylbenzene (cumene)	2.54E+00	NA	DL	2.54E+00	2.54E+00
4-Methyl-2-pentanone	6.24E+00	NA	2.00E+00	6.24E+00	6.24E+00
Methylene chloride	3.61E+00	3.90E-01	5.00E-03	3.90E-01	3.90E-01
Styrene	6.12E+00	NA	1.00E-01	6.12E+00	6.12E+00
1,1,1,2-Tetrachloroethane	3.07E+00	2.55E-01	7.00E-02	2.55E-01	2.55E-01
1,1,2,2-Tetrachloroethane	2.04E+00	3.25E-03	DL/0.0002	3.25E-03	3.25E-03
Tetrachloroethylene	2.18E-01	5.57E-01	5.00E-03	2.18E-01	2.18E-01
Toluene	6.89E+00	NA	1.00E+00	6.89E+00	6.89E+00
1,2,4-Trichlorobenzene	1.72E-02	9.87E-02	7.00E-02	1.72E-02	7.00E-02
1,1,1-Trichloroethane	3.61E+01	NA	2.00E-01	3.61E+01	3.61E+01
1,1,2-Trichloroethane	4.09E-01	1.17E-01	5.00E-03	1.17E-01	1.17E-01
Trichloroethylene	1.30E-02	3.09E-02	5.00E-03	1.30E-02	1.30E-02
1,2,3-Trichloropropane	2.61E-03	9.54E-05	4.00E-02	9.54E-05	4.00E-02
Vinyl Chloride	2.27E-01	3.71E-03	2.00E-03	3.71E-03	3.71E-03
Xylenes	8.41E-01	NA	1.00E+01	8.41E-01	1.00E+01
Semivolatile Organic Compounds					
Acenaphthene	6.13E+00	NA	2.00E+00	6.13E+00	6.13E+00
Acenaphthylene	3.07E+01	NA	DL	3.07E+01	3.07E+01
Acetophenone	1.02E+01	NA	4.00E+00	1.02E+01	1.02E+01
Anthracene	3.07E+01	NA	DL	3.07E+01	3.07E+01
Benzo(a)anthracene	NA	1.42E-03	1.00E-04	1.42E-03	1.42E-03
Benzo(a)pyrene	NA	1.42E-04	2.00E-04	1.42E-04	2.00E-04
Benzo(b)fluoranthene	NA	1.42E-03	2.00E-04	1.42E-03	1.42E-03
Benzo(g,h,i)perylene	3.07E+01	NA	DL	3.07E+01	3.07E+01
Benzo(k)fluoranthene	NA	2.11E-03	DL	2.11E-03	2.11E-03
bis(2-chloroisopropyl)ether	4.09E+00	4.09E-02	DL	4.09E-02	4.09E-02
bis(2-ethylhexyl)phthalate	2.04E+00	6.81E-02	6.00E-03	6.81E-02	6.81E-02
2-Chlorophenol	5.11E-01	NA	4.00E-02	5.11E-01	5.11E-01
Chrysene	NA	2.11E-02	3.30E-01	2.11E-02	3.30E-01
Dibenzo(a,h)anthracene	NA	1.34E-04	3.00E-04	1.34E-04	3.00E-04
2,4-Dichlorophenol	3.07E-01	NA	2.00E-02	3.07E-01	3.07E-01
Di-n-butylphthalate	1.02E+01	NA	4.00E+00	1.02E+01	1.02E+01
2,4-Dimethylphenol	2.04E+00	NA	7.00E-01	2.04E+00	2.04E+00
2,4-Dinitrophenol	2.04E-01	NA	1.70E-03	2.04E-01	2.04E-01
Di-n-octylphthalate	NA	NA	7.00E-01	NA	7.00E-01
Fluoranthene	4.09E+00	NA	1.00E+00	4.09E+00	4.09E+00
Fluorene	4.09E+00	NA	1.00E+00	4.09E+00	4.09E+00
Indeno(1,2,3-cd)pyrene	NA	1.42E-03	4.00E-04	1.42E-03	1.42E-03
2-Methylphenol	2.58E+00	NA	DL	2.58E+00	2.58E+00
4-Methylphenol	3.45E+00	NA	DL	3.45E+00	3.45E+00
Naphthalene	2.59E-02	7.21E-02	2.00E-02	2.59E-02	2.59E-02
N-Nitrosodiphenylamine	NA	8.20E-02	DL	8.20E-02	8.20E-02
Pentachlorophenol	5.11E-01	6.23E-03	1.00E-03	6.23E-03	6.23E-03
Phenanthrene	3.07E+01	NA	DL	3.07E+01	3.07E+01
Phenol	1.65E+00	NA	4.00E+00	1.65E+00	4.00E+00
Pyrene	3.07E+00	NA	1.00E+00	3.07E+00	3.07E+00
2,4,5-Trichlorophenol	1.02E+01	NA	4.00E+00	1.02E+01	1.02E+01
2,4,6-Trichlorophenol	1.12E-01	6.07E-02	3.00E-02	6.07E-02	6.07E-02

Table A-1
Calculation of Type 3 and Type 4 Risk Reduction Standards (RRS) for Groundwater
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	Calculated Non-Residential Target Concentrations (mg/L)		Type 3 GW RRS (mg/L)	Type 4 GW RRS (mg/L)	Value Used for Leachate Calculations (mg/L)
	Non-Cancer	Cancer			
Pesticides / Polychlorinated Biphenyls					
Aroclor 1016	7.15E-03	9.43E-03	5.00E-04	7.15E-03	7.15E-03
Aroclor 1260	NA	3.30E-04	5.00E-04	3.30E-04	5.00E-04
Aldrin	3.07E-03	3.86E-05	1.70E-03	3.86E-05	1.70E-03
alpha-Endosulfan	6.13E-01	NA	2.00E-03	6.13E-01	6.13E-01
alpha-BHC	8.18E-01	1.05E-04	1.70E-03	1.05E-04	1.70E-03
beta-BHC	NA	3.58E-04	1.70E-03	3.58E-04	1.70E-03
beta-Endosulfan	6.13E-01	NA	2.00E-03	6.13E-01	6.13E-01
Chlordane	5.48E-03	1.89E-03	2.00E-03	1.89E-03	2.00E-03
delta-BHC	8.18E-02	5.37E-04	DL	5.37E-04	5.37E-04
DDD	NA	2.75E-03	1.00E-04	2.75E-03	2.75E-03
DDE	NA	1.94E-03	1.00E-04	1.94E-03	1.94E-03
DDT	5.11E-02	1.94E-03	1.00E-04	1.94E-03	1.94E-03
Dieldrin	5.11E-03	4.13E-05	2.00E-05	4.13E-05	4.13E-05
Endosulfan sulfate	6.13E-01	NA	1.00E-04	6.13E-01	6.13E-01
Endrin	3.07E-02	NA	2.00E-03	3.07E-02	3.07E-02
Endrin aldehyde	3.07E-02	NA	1.00E-04	3.07E-02	3.07E-02
Endrin ketone	3.07E-02	NA	1.00E-04	3.07E-02	3.07E-02
Heptachlor epoxide	1.33E-03	7.26E-05	2.00E-04	7.26E-05	2.00E-04
Lindane	3.07E-02	6.07E-04	2.00E-04	6.07E-04	6.07E-04
Methoxychlor	5.11E-01	NA	4.00E-02	5.11E-01	5.11E-01

Notes:
NA = No value available
DL = Analytical detection limit
mg/L = Milligrams per liter

References:

1. USEPA Regional Screening Level (RSL) Tables - November, 2012. Available online at http://www.epa.gov/region9/superfund/prg/
2. USEPA Risk Assessment Guidance for Superfund (RAGS): Volume I - Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals). December 1991. EPA/540/R-92/003.

Calculation of Non-Residential Risk-Based Target Concentrations:

Noncarcinogens:

$$C = \frac{HI*BW*AT*365\ days/year}{EF*ED*[(1/RfD_o*IR_w) + (1/RfD_i*K*IR_a)]} \quad \text{(Eq. 1, RAGS Part B)}$$

Carcinogens:

$$C = \frac{TR*BW*AT*365\ days/year}{EF*ED*[(CSF_o*IR_w)+(CSF_i*K*IR_a)]} \quad \text{(Eq. 2, RAGS Part B)}$$

where:

HI = Hazard Index (unitless)	1	
BW = Body Weight (kg), adult	70	
AT = Averaging Time (years), adult, carcinogen	70	
AT = Averaging Time (years), adult, noncarcinogen	25	
EF = Exposure Frequency (days/year)	250	
ED = Exposure Duration (years), adult	25	
RfD_o = Oral Reference Dose	Chemical-specific	
IR_w = Ingestion Rate of Water (L/day), adult	1	
TR = Target Risk (unitless)	1.00E-05	
TR for Class C carcinogen	1.00E-04	
CSF_o = Oral Cancer Slope Factor	Chemical-specific	
IR_a = Air Inhalation Rate (m^3/day), adult	6.67	[20 m^3/day * (8 hrs worked / 24 hrs/day)]
CF = Conversion Factor (kg/mg)	1.00E-06	
VF = Volatilization Factor (m^3/kg)	Chemical-specific	
K = Volatilization Factor (unitless)	0.5	

Table A-2
Calculation of Type 3 Risk Reduction Standards (RRS) for Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	A Notification Conc, Soil (mg/kg)	B Type 1 GW Conc x100 (mg/L)	C Leachate Test (mg/kg)	D Appendix III, Table 2 (mg/kg)	E Maximum of A, B, C, D (mg/kg)	F Calculated Non-Residential Target Concentrations (mg/kg) Non-Cancer	G Calculated Non-Residential Target Concentrations (mg/kg) Cancer	H Minimum of E, F, G (mg/kg)	J Type 3 RRS (mg/kg) Surface SS (0-2')	K Type 3 RRS (mg/kg) Sub-Surface SB (>2')
Volatile Organic Compounds										
Acetone	2.74	400	NA	NA	400.00	2.62E+05	NA	4.00E+02	4.00E+02	4.00E+02
Benzene	0.02	0.5	NA	NA	0.50	1.94E+02	2.32E+01	5.00E-01	5.00E-01	5.00E-01
Bromoform	1	8	NA	NA	8.00	4.09E+04	3.82E+02	8.00E+00	8.00E+00	8.00E+00
2-Butanone	0.79	200	NA	NA	200.00	5.46E+04	NA	2.00E+02	2.00E+02	2.00E+02
Carbon Disulfide	DL	400	NA	NA	400.00	9.04E+02	NA	4.00E+02	4.00E+02	4.00E+02
Chlorobenzene	4.18	10	NA	NA	10.00	6.05E+02	NA	1.00E+01	1.00E+01	1.00E+01
Chloroethane	0.17	1	NA	NA	1.00	1.53E+04	NA	1.00E+00	1.00E+00	1.00E+00
Cyclohexane	20	NA	NA	NA	20.00	6.80E+03	NA	2.00E+01	2.00E+01	2.00E+01
1,2-Dibromo-3-Chloropropan	DL/0.003	0.02	NA	NA	0.02	1.18E+01	2.83E-01	2.00E-02	2.00E-02	2.00E-02
1,2-Dichlorobenzene	25	60	NA	NA	60.00	4.51E+03	NA	6.00E+01	6.00E+01	6.00E+01
1,3-Dichlorobenzene	2.22	60	NA	NA	60.00	5.20E+03	NA	6.00E+01	6.00E+01	6.00E+01
1,4-Dichlorobenzene	6.84	7.5	NA	NA	7.50	1.48E+04	5.24E+01	7.50E+00	7.50E+00	7.50E+00
Dichlorodifluoromethane	1.49	100	NA	NA	100.00	4.89E+01	NA	4.89E+01	4.89E+01	1.00E+02
1,1-Dichloroethane	0.03	400	NA	NA	400.00	4.09E+05	5.38E+02	4.00E+02	4.00E+02	4.00E+02
1,2-Dichloroethane	0.02	0.5	NA	NA	0.50	7.35E+03	8.13E+01	5.00E-01	5.00E-01	5.00E-01
1,1-Dichloroethene	0.36	0.7	NA	NA	0.70	2.51E+02	NA	7.00E-01	7.00E-01	7.00E-01
cis-1,2-dichloroethene	0.53	7	NA	NA	7.00	4.09E+03	NA	7.00E+00	7.00E+00	7.00E+00
trans-1,2-dichloroethene	0.53	10	NA	NA	10.00	2.37E+02	NA	1.00E+01	1.00E+01	1.00E+01
1,2-Dichloropropane	0.02	0.5	NA	NA	0.50	2.41E+01	1.74E+01	5.00E-01	5.00E-01	5.00E-01
Ethylbenzene	20	70	NA	NA	70.00	1.06E+04	1.22E+02	7.00E+01	7.00E+01	7.00E+01
Isopropylbenzene (cumene)	21.88	0.5	NA	NA	21.88	4.63E+03	NA	2.19E+01	2.19E+01	2.19E+01
4-Methyl-2-pentanone	3.3	200	NA	NA	200.00	3.35E+04	NA	2.00E+02	2.00E+02	2.00E+02
Methylene chloride	0.08	0.5	NA	NA	0.50	3.02E+03	1.88E+02	5.00E-01	5.00E-01	5.00E-01
Styrene	14	10	NA	NA	14.00	1.77E+04	NA	1.40E+01	1.40E+01	1.40E+01
1,1,1,2-Tetrachloroethane	1.03	7	NA	NA	7.00	6.13E+04	3.84E+02	7.00E+00	7.00E+00	7.00E+00
1,1,2,2-Tetrachloroethane	0.13	DL/0.2	NA	NA	0.13	4.09E+04	1.30E+01	1.30E-01	1.30E-01	1.30E-01
Tetrachloroethylene	0.18	0.5	NA	NA	0.50	1.47E+02	4.10E+02	5.00E-01	5.00E-01	5.00E-01
Toluene	14.4	100	NA	NA	100.00	3.29E+04	NA	1.00E+02	1.00E+02	1.00E+02
1,2,4-Trichlorobenzene	10.83	7	NA	NA	10.83	1.20E+02	1.97E+03	1.08E+01	1.08E+01	1.08E+01
1,1,1-Trichloroethane	5.44	20	NA	NA	20.00	1.13E+04	NA	2.00E+01	2.00E+01	2.00E+01
1,1,2-Trichloroethane	0.5	0.5	NA	NA	0.50	8.18E+03	2.20E+02	5.00E-01	5.00E-01	5.00E-01
Trichloroethylene	0.13	0.5	NA	NA	0.50	7.07E+00	2.45E+01	5.00E-01	5.00E-01	5.00E-01
1,2,3-Trichloropropane	0.54	4	NA	NA	4.00	1.19E+00	1.91E+00	1.19E+00	1.19E+00	4.00E+00
Vinyl Chloride	0.04	0.2	NA	NA	0.20	8.36E+01	5.06E+00	2.00E-01	2.00E-01	2.00E-01
Xylenes	20	1000	NA	NA	1000.00	1.14E+03	NA	1.00E+03	1.00E+03	1.00E+03
Semivolatile Organic Compounds										
Acenaphthene	300	200	NA	NA	300	1.23E+05	NA	3.00E+02	3.00E+02	3.00E+02
Acenaphthylene	130	NA	NA	NA	130	6.13E+05	NA	1.30E+02	1.30E+02	1.30E+02
Acetophenone	DL/0.26	400	NA	NA	400	2.04E+05	NA	4.00E+02	4.00E+02	4.00E+02
Anthracene	500	NA	NA	NA	500	6.13E+05	NA	5.00E+02	5.00E+02	5.00E+02
Benzo(a)anthracene	5	0.01	NA	NA	5	NA	7.84E+01	5.00E+00	5.00E+00	5.00E+00
Benzo(a)pyrene	1.64	0.02	NA	NA	1.64	NA	7.84E+00	1.64E+00	1.64E+00	1.64E+00
Benzo(b)fluoranthene	5	0.02	NA	NA	5	NA	7.84E+01	5.00E+00	5.00E+00	5.00E+00
Benzo(g,h,i)perylene	500	NA	NA	NA	500	6.13E+05	NA	5.00E+02	5.00E+02	5.00E+02
Benzo(k)fluoranthene	5	NA	NA	NA	5	NA	7.84E+02	5.00E+00	5.00E+00	5.00E+00
bis(2-chloroisopropyl)ether	170.91	NA	NA	NA	170.91	8.18E+04	8.18E+02	1.71E+02	1.71E+02	1.71E+02
bis(2-ethylhexyl)phthalate	50	0.6	NA	NA	50	4.09E+04	4.09E+03	5.00E+01	5.00E+01	5.00E+01
2-Chlorophenol	0.68	4	NA	NA	4	1.02E+04	NA	4.00E+00	4.00E+00	4.00E+00
Chrysene	5	33	NA	NA	33	NA	7.84E+03	3.30E+01	3.30E+01	3.30E+01
Dibenzo(a,h)anthracene	5	0.03	NA	NA	5	NA	7.84E+00	5.00E+00	5.00E+00	5.00E+00
2,4-Dichlorophenol	0.96	2	NA	NA	2	6.13E+03	NA	2.00E+00	2.00E+00	2.00E+00
Di-n-butylphthalate	13.7	400	NA	NA	400	2.04E+05	NA	4.00E+02	4.00E+02	4.00E+02
2,4-Dimethylphenol	1.51	70	NA	NA	70	4.09E+04	NA	7.00E+01	7.00E+01	7.00E+01
2,4-Dinitrophenol	3.3	0.17	NA	NA	3.3	4.09E+03	NA	3.30E+00	3.30E+00	3.30E+00
Di-n-octylphthalate	50	70	NA	NA	70	NA	NA	7.00E+01	7.00E+01	7.00E+01
Fluoranthene	500	100	NA	NA	500	8.18E+04	NA	5.00E+02	5.00E+02	5.00E+02
Fluorene	360	100	NA	NA	360	8.18E+04	NA	3.60E+02	3.60E+02	3.60E+02
Indeno(1,2,3-cd)pyrene	5	0.04	NA	NA	5	NA	7.84E+01	5.00E+00	5.00E+00	5.00E+00
2-Methylphenol	3.8	NA	NA	NA	3.8	1.02E+05	NA	3.80E+00	3.80E+00	3.80E+00
4-Methylphenol	3.8	NA	NA	NA	3.8	2.04E+05	NA	3.80E+00	3.80E+00	3.80E+00
Naphthalene	100	2	NA	NA	100	2.79E+02	7.72E+02	1.00E+02	1.00E+02	1.00E+02
N-Nitrosodiphenylamine	6.46	NA	NA	NA	6.46	NA	1.17E+04	6.46E+00	6.46E+00	6.46E+00
Pentachlorophenol	3.3	0.1	NA	NA	3.3	1.02E+04	1.43E+02	3.30E+00	3.30E+00	3.30E+00
Phenanthrene	110	NA	NA	NA	110	6.13E+05	NA	1.10E+02	1.10E+02	1.10E+02
Phenol	50	400	NA	NA	400	6.13E+05	NA	4.00E+02	4.00E+02	4.00E+02
Pyrene	500	100	NA	NA	500	6.13E+04	NA	5.00E+02	5.00E+02	5.00E+02
2,4,5-Trichlorophenol	4.56	400	NA	NA	400	2.04E+05	NA	4.00E+02	4.00E+02	4.00E+02
2,4,6-Trichlorophenol	0.66	3	NA	NA	3	2.25E+03	5.20E+03	3.00E+00	3.00E+00	3.00E+00

Table A-2
Calculation of Type 3 Risk Reduction Standards (RRS) for Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	A Notification Conc, Soil (mg/kg)	B Type 1 GW Conc x100 (mg/L)	C Leachate Test (mg/kg)	D Appendix III, Table 2 (mg/kg)	E Maximum of A, B, C, D (mg/kg)	F Calculated Non-Residential Target Concentrations (mg/kg) Non-Cancer	G Cancer	H Minimum of E, F, G (mg/kg)	J Type 3 RRS (mg/kg) Surface SS (0-2')	K Sub-Surface SB (>2')
Pesticides / Polychlorinated Biphenyls										
Aroclor 1016	1.55	0.05	NA	NA	1.55	1.43E+02	8.18E+02	1.55E+00	1.55E+00	1.55E+00
Aroclor 1260	1.55	0.05	NA	NA	1.55	NA	2.86E+01	1.55E+00	1.55E+00	1.55E+00
Aldrin	0.66	0.002	NA	NA	0.66	6.13E+01	3.37E+00	6.60E-01	6.60E-01	6.60E-01
alpha-Endosulfan	10	0.2	NA	NA	10	1.23E+04	NA	1.00E+01	1.00E+01	1.00E+01
alpha-BHC	0.66	0.17	NA	NA	0.66	1.64E+04	9.08E+00	6.60E-01	6.60E-01	6.60E-01
beta-BHC	0.66	0.17	NA	NA	0.66	NA	3.18E+01	6.60E-01	6.60E-01	6.60E-01
beta-Endosulfan	10	0.2	NA	NA	10	1.23E+04	NA	1.00E+01	1.00E+01	1.00E+01
Chlordane	9.2	0.2	NA	NA	9.2	1.02E+03	1.64E+02	9.20E+00	9.20E+00	9.20E+00
delta-BHC	25	NA	NA	NA	25	1.64E+03	4.14E+05	2.50E+01	2.50E+01	2.50E+01
DDD	0.66	0.01	NA	NA	0.66	NA	2.38E+02	6.60E-01	6.60E-01	6.60E-01
DDE	0.66	0.01	NA	NA	0.66	NA	1.68E+02	6.60E-01	6.60E-01	6.60E-01
DDT	0.66	0.01	NA	NA	0.66	1.02E+03	1.68E+02	6.60E-01	6.60E-01	6.60E-01
Dieldrin	0.66	0.002	NA	NA	0.66	1.02E+02	3.58E+00	6.60E-01	6.60E-01	6.60E-01
Endosulfan sulfate	1.65	0.01	NA	NA	1.65	1.23E+04	NA	1.65E+00	1.65E+00	1.65E+00
Endrin	10	0.2	NA	NA	10	6.13E+02	NA	1.00E+01	1.00E+01	1.00E+01
Endrin aldehyde	10	0.01	NA	NA	10	6.13E+02	NA	1.00E+01	1.00E+01	1.00E+01
Endrin ketone	10	0.01	NA	NA	10	6.13E+02	NA	1.00E+01	1.00E+01	1.00E+01
Heptachlor epoxide	1.65	0.02	NA	NA	1.65	2.66E+01	6.29E+00	1.65E+00	1.65E+00	1.65E+00
Lindane	0.66	0.02	NA	NA	0.66	6.13E+02	5.20E+01	6.60E-01	6.60E-01	6.60E-01
Methoxychlor	10	4	NA	NA	10	1.02E+04	NA	1.00E+01	1.00E+01	1.00E+01

Notes:
NA = No value available
DL = Analytical detection limit
mg/kg = Milligrams per kilogram
L = Liter

References:

1. Georgia EPD, Risk Reduction Standards, 391-3-19-.07. Available online at: http://www.gaepd.org/Documents/hsraguideCSRRRS.html.
   Values presented in columns A through D are obtained from Appendices I and III.
2. USEPA Risk Assessment Guidance for Superfund (RAGS): Volume I - Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals).
   December 1991. EPA/540/R-92/003.

Calculation of Non-Residential Risk-Based Target Concentrations:

Noncarcinogens:

$$C = \frac{HI*BW*AT*\ 365\ days/year}{EF*ED*[(1/RfD_o*CF*IR)+(1/RfD_i*IR_a*(1/VF+1/PEF)]} \quad \text{(Eq. 7, RAGS Part B)}$$

Carcinogens:

$$C = \frac{TR*BW*AT*\ 365\ days/year}{EF*ED*[(CSF_o*IR*CF)+(CSF_i*IR_a*(1/VF+1/PEF)]} \quad \text{(Eq. 6, RAGS Part B)}$$

where:

HI = Hazard Index (unitless)	1
BW = Body Weight (kg), adult	70
AT = Averaging Time (years), adult, carcinogen	70
AT = Averaging Time (years), adult, noncarcinogen	25
EF = Exposure Frequency (days/year)	250
ED = Exposure Duration (years), adult	25
RfD_o = Oral Reference Dose	Chemical-specific
IR = Ingestion Rate (mg/day), adult	50
TR = Target Risk (unitless)	1.00E-05
TR for Class C carcinogen	1.00E-04
CSF_o = Oral Cancer Slope Factor	Chemical-specific
IR_a = Air Inhalation Rate (m^3/day), adult	20
1/PEF = Inv of Particulate Emission Factor (kg/m^3)	2.16E-10
CF = Conversion Factor (kg/mg)	1.00E-06
1/VF = Volatilization Factor (kg/m^3)	Chemical-specific
RfD_i = Inhalation Reference Dose	Chemical-specific
CSF_i = Inhalation Slope Factor	Chemical-specific

Table A-3
Calculation of Type 4 Risk Reduction Standards (RRS) for Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	Calculated Non-Residential Target Concentrations (mg/kg)		Leachate		Type 4 RSS (mg/kg)			
					DAF = 1		DAF = 20	
			DAF=1	DAF=20	Surface	Sub-Surface	Surface	Sub-Surface
	Non-Cancer	Cancer	(mg/kg)	(mg/kg)	SS (0-2')	SB (>2')	SS (0-2')	SB (>2')
Volatile Organic Compounds								
Acetone	6.11E+05	NA	1.70E+01	3.40E+02	1.70E+01	1.70E+01	3.40E+02	3.40E+02
Benzene	5.57E+02	6.67E+01	6.15E-02	1.23E+00	6.15E-02	6.15E-02	1.23E+00	1.23E+00
Bromoform	4.09E+04	1.04E+03	1.16E-01	2.31E+00	1.16E-01	1.16E-01	2.31E+00	2.31E+00
2-Butanone	1.51E+05	NA	7.42E+00	1.48E+02	7.42E+00	7.42E+00	1.48E+02	1.48E+02
Carbon Disulfide	2.69E+03	NA	2.75E+00	5.50E+01	2.75E+00	2.75E+00	5.50E+01	5.50E+01
Chlorobenzene	1.76E+03	NA	1.73E+00	3.47E+01	1.73E+00	1.73E+00	3.47E+01	3.47E+01
Chloroethane	4.59E+04	NA	5.91E+01	1.18E+03	5.91E+01	5.91E+01	1.18E+03	1.18E+03
Cyclohexane	2.04E+04	NA	1.92E+02	3.84E+03	1.92E+02	1.92E+02	3.84E+03	3.84E+03
1,2-Dibromo-3-Chloropropane	3.35E+01	8.43E-01	5.03E-04	1.01E-02	5.03E-04	5.03E-04	1.01E-02	1.01E-02
1,2-Dichlorobenzene	1.29E+04	NA	1.16E+01	2.31E+02	1.16E+01	1.16E+01	2.31E+02	2.31E+02
1,3-Dichlorobenzene	1.48E+04	NA	1.84E+01	3.69E+02	1.84E+01	1.84E+01	3.69E+02	3.69E+02
1,4-Dichlorobenzene	3.69E+04	1.56E+02	5.79E-01	1.16E+01	5.79E-01	5.79E-01	1.16E+01	1.16E+01
Dichlorodifluoromethane	1.47E+02	NA	3.75E+00	7.50E+01	3.75E+00	3.75E+00	7.50E+01	7.50E+01
1,1-Dichloroethane	4.09E+05	1.60E+03	3.43E+00	6.86E+01	3.43E+00	3.43E+00	6.86E+01	6.86E+01
1,2-Dichloroethane	1.00E+04	2.38E+02	7.23E-02	1.45E+00	7.23E-02	7.23E-02	1.45E+00	1.45E+00
1,1-Dichloroethene	7.50E+02	NA	1.21E+00	2.43E+01	1.21E+00	1.21E+00	2.43E+01	2.43E+01
cis-1,2-dichloroethene	4.09E+03	NA	2.06E-01	4.12E+00	2.06E-01	2.06E-01	4.12E+00	4.12E+00
trans-1,2-dichloroethene	7.04E+02	NA	4.18E-01	8.36E+00	4.18E-01	4.18E-01	8.36E+00	8.36E+00
1,2-Dichloropropane	7.24E+01	5.10E+01	2.67E-02	5.34E-01	2.67E-02	2.67E-02	5.34E-01	5.34E-01
Ethylbenzene	2.88E+04	3.49E+02	6.41E+00	1.28E+02	6.41E+00	6.41E+00	1.28E+02	1.28E+02
Isopropylbenzene (cumene)	1.33E+04	NA	3.60E+01	7.20E+02	3.60E+01	3.60E+01	7.20E+02	7.20E+02
4-Methyl-2-pentanone	7.13E+04	NA	2.82E+00	5.64E+01	2.82E+00	2.82E+00	5.64E+01	5.64E+01
Methylene chloride	8.62E+03	5.56E+02	2.52E-01	5.05E+00	2.52E-01	2.52E-01	5.05E+00	5.05E+00
Styrene	4.89E+04	NA	5.59E+01	1.12E+03	5.59E+01	5.59E+01	1.12E+03	1.12E+03
1,1,1,2-Tetrachloroethane	6.13E+04	1.11E+03	4.92E-01	9.83E+00	4.92E-01	4.92E-01	9.83E+00	9.83E+00
1,1,2,2-Tetrachloroethane	4.09E+04	3.58E+01	6.83E-03	1.37E-01	6.83E-03	6.83E-03	1.37E-01	1.37E-01
Tetrachloroethylene	4.31E+02	1.19E+03	4.71E-01	9.41E+00	4.71E-01	4.71E-01	9.41E+00	9.41E+00
Toluene	7.04E+04	NA	3.38E+01	6.76E+02	3.38E+01	3.38E+01	6.76E+02	6.76E+02
1,2,4-Trichlorobenzene	3.55E+02	1.97E+03	1.91E+00	3.83E+01	1.91E+00	1.91E+00	3.83E+01	3.83E+01
1,1,1-Trichloroethane	3.37E+04	NA	4.12E+01	8.24E+02	4.12E+01	4.12E+01	8.24E+02	8.24E+02
1,1,2-Trichloroethane	8.18E+03	6.33E+02	1.66E-01	3.33E+00	1.66E-01	1.66E-01	3.33E+00	3.33E+00
Trichloroethylene	2.09E+01	7.07E+01	1.89E-02	3.78E-01	1.89E-02	1.89E-02	3.78E-01	3.78E-01
1,2,3-Trichloropropane	3.58E+00	1.91E+00	1.03E-01	2.06E+00	1.03E-01	1.03E-01	1.91E+00	2.06E+00
Vinyl Chloride	2.44E+02	1.35E+01	2.73E-03	5.46E-02	2.73E-03	2.73E-03	5.46E-02	5.46E-02
Xylenes	3.41E+03	NA	7.88E+01	1.58E+03	7.88E+01	7.88E+01	1.58E+03	1.58E+03
Semivolatile Organic Compounds								
Acenaphthene	1.23E+05	NA	6.18E+02	1.24E+04	6.18E+02	6.18E+02	1.24E+04	1.24E+04
Acenaphthylene	6.13E+05	NA	4.25E+03	8.50E+04	4.25E+03	4.25E+03	8.50E+04	8.50E+04
Acetophenone	2.04E+05	NA	1.26E+01	2.53E+02	1.26E+01	1.26E+01	2.53E+02	2.53E+02
Anthracene	6.13E+05	NA	1.00E+04	2.01E+05	1.00E+04	1.00E+04	2.01E+05	1.00E+05
Benzo(a)anthracene	NA	7.84E+01	5.03E+00	1.01E+02	5.03E+00	5.03E+00	7.84E+01	1.01E+02
Benzo(a)pyrene	NA	7.84E+00	2.35E+00	4.70E+01	2.35E+00	2.35E+00	7.84E+00	4.70E+01
Benzo(b)fluoranthene	NA	7.84E+01	1.70E+01	3.41E+02	1.70E+01	1.70E+01	7.84E+01	3.41E+02
Benzo(g,h,i)perylene	6.13E+05	NA	NA	NA	6.13E+05	1.00E+05	6.13E+05	1.00E+05
Benzo(k)fluoranthene	NA	7.84E+02	2.48E+01	4.96E+02	2.48E+01	2.48E+01	4.96E+02	4.96E+02
bis(2-chloroisopropyl)ether	8.18E+04	8.18E+02	5.81E-02	1.16E+00	5.81E-02	5.81E-02	1.16E+00	1.16E+00
bis(2-ethylhexyl)phthalate	4.09E+04	4.09E+03	1.63E+02	3.26E+03	1.63E+02	1.63E+02	3.26E+03	3.26E+03
2-Chlorophenol	1.02E+04	NA	3.23E+00	6.47E+01	3.23E+00	3.23E+00	6.47E+01	6.47E+01
Chrysene	NA	7.84E+03	1.19E+03	2.38E+04	1.19E+03	1.19E+03	7.84E+03	2.38E+04
Dibenzo(a,h)anthracene	NA	7.84E+00	1.15E+01	2.29E+02	7.84E+00	1.15E+01	7.84E+00	2.29E+02
2,4-Dichlorophenol	6.13E+03	NA	3.08E+00	6.15E+01	3.08E+00	3.08E+00	6.15E+01	6.15E+01
Di-n-butylphthalate	2.04E+05	NA	2.39E+02	4.77E+03	2.39E+02	2.39E+02	4.77E+03	4.77E+03
2,4-Dimethylphenol	4.09E+04	NA	2.05E+01	4.10E+02	2.05E+01	2.05E+01	4.10E+02	4.10E+02
2,4-Dinitrophenol	4.09E+03	NA	1.92E+00	3.85E+01	1.92E+00	1.92E+00	3.85E+01	3.85E+01
Di-n-octylphthalate	NA	NA	1.16E+06	2.33E+07	1.16E+06	1.00E+05	2.33E+07	1.00E+05
Fluoranthene	8.18E+04	NA	4.53E+03	9.07E+04	4.53E+03	4.53E+03	8.18E+04	9.07E+04
Fluorene	8.18E+04	NA	7.50E+02	1.50E+04	7.50E+02	7.50E+02	1.50E+04	1.50E+04
Indeno(1,2,3-cd)pyrene	NA	7.84E+01	5.55E+01	1.11E+03	5.55E+01	5.55E+01	7.84E+01	1.11E+03
2-Methylphenol	1.02E+05	NA	1.63E+01	3.27E+02	1.63E+01	1.63E+01	3.27E+02	3.27E+02
4-Methylphenol	2.04E+05	NA	2.14E+01	4.29E+02	2.14E+01	2.14E+01	4.29E+02	4.29E+02
Naphthalene	8.26E+02	2.32E+03	8.06E-01	1.61E+01	8.06E-01	8.06E-01	1.61E+01	1.61E+01
N-Nitrosodiphenylamine	NA	1.17E+04	4.33E+00	8.67E+01	4.33E+00	4.33E+00	8.67E+01	8.67E+01
Pentachlorophenol	1.02E+04	1.43E+02	6.19E-01	1.24E+01	6.19E-01	6.19E-01	1.24E+01	1.24E+01
Phenanthrene	6.13E+05	NA	8.67E+03	1.73E+05	8.67E+03	8.67E+03	1.73E+05	1.00E+05
Phenol	6.13E+05	NA	1.58E+01	3.16E+02	1.58E+01	1.58E+01	3.16E+02	3.16E+02
Pyrene	6.13E+04	NA	3.33E+03	6.67E+04	3.33E+03	3.33E+03	6.13E+04	6.67E+04
2,4,5-Trichlorophenol	2.04E+05	NA	3.65E+02	7.31E+03	3.65E+02	3.65E+02	7.31E+03	7.31E+03
2,4,6-Trichlorophenol	2.25E+03	5.20E+03	2.17E+00	4.34E+01	2.17E+00	2.17E+00	4.34E+01	4.34E+01

Table A-3
Calculation of Type 4 Risk Reduction Standards (RRS) for Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	Calculated Non-Residential Target Concentrations (mg/kg)		Leachate		Type 4 RSS (mg/kg)			
					DAF = 1		DAF = 20	
	Non-Cancer	Cancer	DAF=1 (mg/kg)	DAF=20 (mg/kg)	Surface SS (0-2')	Sub-Surface SB (>2')	Surface SS (0-2')	Sub-Surface SB (>2')
Pesticides / Polychlorinated Biphenyls								
Aroclor 1016	1.43E+02	8.18E+02	6.83E+00	1.37E+02	6.83E+00	6.83E+00	1.37E+02	1.37E+02
Aroclor 1260	NA	2.86E+01	3.50E+00	6.99E+01	3.50E+00	3.50E+00	2.86E+01	6.99E+01
Aldrin	6.13E+01	3.37E+00	2.79E+00	5.58E+01	2.79E+00	2.79E+00	3.37E+00	5.58E+01
alpha-Endosulfan	1.23E+04	NA	1.94E+02	3.89E+03	1.94E+02	1.94E+02	3.89E+03	3.89E+03
alpha-BHC	1.64E+04	9.08E+00	9.58E-02	1.92E+00	9.58E-02	9.58E-02	1.92E+00	1.92E+00
beta-BHC	NA	3.18E+01	9.58E-02	1.92E+00	9.58E-02	9.58E-02	1.92E+00	1.92E+00
beta-Endosulfan	1.23E+04	NA	1.94E+02	3.89E+03	1.94E+02	1.94E+02	3.89E+03	3.89E+03
Chlordane	1.02E+03	1.64E+02	1.35E+00	2.70E+01	1.35E+00	1.35E+00	2.70E+01	2.70E+01
delta-BHC	1.64E+03	1.24E+06	9.14E-02	1.83E+00	9.14E-02	9.14E-02	1.83E+00	1.83E+00
DDD	NA	2.38E+02	6.47E+00	1.29E+02	6.47E+00	6.47E+00	1.29E+02	1.29E+02
DDE	NA	1.68E+02	4.57E+00	9.14E+01	4.57E+00	4.57E+00	9.14E+01	9.14E+01
DDT	1.02E+03	1.68E+02	6.56E+00	1.31E+02	6.56E+00	6.56E+00	1.31E+02	1.31E+02
Dieldrin	1.02E+02	3.58E+00	1.66E-02	3.32E-01	1.66E-02	1.66E-02	3.32E-01	3.32E-01
Endosulfan sulfate	1.23E+04	NA	1.21E+02	2.42E+03	1.21E+02	1.21E+02	2.42E+03	2.42E+03
Endrin	6.13E+02	NA	1.23E+01	2.47E+02	1.23E+01	1.23E+01	2.47E+02	2.47E+02
Endrin aldehyde	6.13E+02	NA	2.01E+00	4.02E+01	2.01E+00	2.01E+00	4.02E+01	4.02E+01
Endrin ketone	6.13E+02	NA	5.97E+00	1.19E+02	5.97E+00	5.97E+00	1.19E+02	1.19E+02
Heptachlor epoxide	2.66E+01	6.29E+00	4.05E-02	8.10E-01	4.05E-02	4.05E-02	8.10E-01	8.10E-01
Lindane	6.13E+02	5.20E+01	3.42E-02	6.84E-01	3.42E-02	3.42E-02	6.84E-01	6.84E-01
Methoxychlor	1.02E+04	NA	2.75E+02	5.50E+03	2.75E+02	2.75E+02	5.50E+03	5.50E+03

Notes:
NA = No value available
mg/kg = Milligrams per kilogram
L = Liter

References:

1. USEPA Risk Assessment Guidance for Superfund (RAGS): Volume I - Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals). December 1991. EPA/540/R-92/003.
2. USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. December 2002. OSWER 9355.4-24.

Calculation of Non-Residential Risk-Based Target Concentrations:

Noncarcinogens:

$$C = \frac{HI*BW*AT*365\ days/year}{ED*[(1/RfD_o*CF*IR)+(1/RfD_i*IR_a*(1/VF+1/PEF)]}$$

Carcinogens:

$$C = \frac{TR*BW*AT*365\ days/year}{ED*[(CSF_o*IR*CF)+(CSF_i*IR_a*(1/VF+1/PEF)]}$$

where:
HI = Hazard Index (unitless)
BW = Body Weight (kg), adult
AT = Averaging Time (years), adult, carcinogen
AT = Averaging Time (years), adult, noncarcinogen
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years), adult
RfD_o = Oral Reference Dose
IR = Ingestion Rate (mg/day), adult
TR = Target Risk (unitless)
TR for Class C carcinogen
CSF_o = Oral Cancer Slope Factor
IR_a = Air Inhalation Rate (m^3/day), adult
1/PEF = Inv of Particulate Emission Factor (kg/m^3)
CF = Conversion Factor (kg/mg)
1/VF = Volatilization Factor (kg/m^3)
RfD_i = Inhalation Reference Dose
CSF_i = Inhalation Slope Factor

***Leachate Model:**

$$C_t = C_w * DAF * [(K_{oc}*f_{oc}) + (Q_w + Q_a*H')/P_b]$$ (Eq. 4-10, SSL Guidance)

where:

C_w = Target soil leachate concentration (mg/kg)	Chemical-specific
K_d = Soil-water partition coefficient (mg/L)	$K_{oc} * f_{oc}$
Q_w = Water filled soil porosity (Lwater/Lsoil)	0.30
Q_a = Air filled soil porosity (Lair/Lsoil)	0.134
H' = Henry's Law Constant (unitless)	Chemical-specific
P_b = Soil bulk density (kg/L)	1.5
f_{oc} = Fraction organic carbon ((g/g)	0.02
DAF = Dilution attenuation factor (unitless)	20 or 1

Table A-4
Calculation of Type 1 Risk Reduction Standards (RRS) for Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	A Appendix III, Table 2 (mg/kg)	B Notification Conc, Soil (mg/kg)	C Type 1 GW Conc x100 (mg/L)	D Leachate Test (mg/kg)	E Maximum of A, B, C, D (mg/kg)	F Calculated Residential Target Concentrations (mg/kg) Non-Cancer	G Cancer	Type 1 RRS (Min of E, F, G) (mg/kg)
Volatile Organic Compounds								
Acetone	NA	2.74	400	NA	400	1.93E+05	NA	4.00E+02
Benzene	NA	0.02	0.5	NA	0.5	1.77E+02	1.76E+01	5.00E-01
Bromoform	NA	1	8	NA	8.00	1.28E+04	2.73E+02	8.00E+00
2-Butanone	NA	0.79	200	NA	200	4.77E+04	NA	2.00E+02
Carbon Disulfide	NA	DL	400	NA	400	8.53E+02	NA	4.00E+02
Chlorobenzene	NA	4.18	10	NA	10	5.59E+02	NA	1.00E+01
Chloroethane	NA	0.17	1	NA	1	1.46E+04	NA	1.00E+00
Cyclohexane	NA	20	NA	NA	20	6.47E+03	NA	2.00E+01
1,2-Dibromo-3-Chloropropane	NA	DL/0.003	0.02	NA	0.02	1.06E+01	2.23E-01	2.00E-02
1,2-Dichlorobenzene	NA	25	60	NA	60	4.09E+03	NA	6.00E+01
1,3-Dichlorobenzene	NA	2.22	60	NA	60	4.68E+03	NA	6.00E+01
1,4-Dichlorobenzene	NA	6.84	7.5	NA	7.5	1.17E+04	4.11E+01	7.50E+00
Dichlorodifluoromethane	NA	1.49	100	NA	100	4.65E+01	NA	4.65E+01
1,1-Dichloroethane	NA	0.03	400	NA	400	1.28E+05	4.22E+02	4.00E+02
1,2-Dichloroethane	NA	0.02	0.5	NA	0.5	3.15E+03	6.29E+01	5.00E-01
1,1-Dichloroethene	NA	0.36	0.7	NA	0.7	2.38E+02	NA	7.00E-01
cis-1,2-dichloroethene	NA	0.53	7	NA	7	1.28E+03	NA	7.00E+00
trans-1,2-dichloroethene	NA	0.53	10	NA	10	2.23E+02	NA	1.00E+01
1,2-Dichloropropane	NA	0.02	0.5	NA	0.5	2.30E+01	1.35E+01	5.00E-01
Ethylbenzene	NA	20	70	NA	70	9.12E+03	9.24E+01	7.00E+01
Isopropylbenzene (cumene)	NA	21.9	0.5	NA	21.9	4.21E+03	NA	2.19E+01
4-Methyl-2-pentanone	NA	3.3	200	NA	200	2.25E+04	NA	2.00E+02
Methylene chloride	NA	0.08	0.5	NA	0.5	2.73E+03	1.47E+02	5.00E-01
Styrene	NA	14	10	NA	14	1.55E+04	NA	1.40E+01
1,1,1,2-Tetrachloroethane	NA	1.03	7	NA	7	1.92E+04	2.95E+02	7.00E+00
1,1,2,2-Tetrachloroethane	NA	0.13	DL/0.2	NA	0.13	1.28E+04	9.44E+00	1.30E-01
Tetrachloroethylene	NA	0.18	0.5	NA	0.5	1.37E+02	3.16E+02	5.00E-01
Toluene	NA	14.4	100	NA	100	2.22E+04	NA	1.00E+02
1,2,4-Trichlorobenzene	NA	10.8	7	NA	10.8	1.13E+02	5.15E+02	1.08E+01
1,1,1-Trichloroethane	NA	5.44	20	NA	20	1.07E+04	NA	2.00E+01
1,1,2-Trichloroethane	NA	0.5	0.5	NA	0.5	2.56E+03	1.67E+02	5.00E-01
Trichloroethylene	NA	0.13	0.5	NA	0.5	6.64E+00	1.87E+01	5.00E-01
1,2,3-Trichloropropane	NA	0.54	4	NA	4	1.14E+00	4.98E-01	4.98E-01
Vinyl Chloride	NA	0.04	0.2	NA	0.2	7.74E+01	3.56E+00	2.00E-01
Xylenes	NA	20	1000	NA	1000	1.08E+03	NA	1.00E+03
Semivolatile Organic Compounds								
Acenaphthene	NA	300	200	NA	300	3.84E+04	NA	3.00E+02
Acenaphthylene	NA	130	NA	NA	130	1.92E+05	NA	1.30E+02
Acetophenone	NA	DL/0.26	400	NA	400	6.40E+04	NA	4.00E+02
Anthracene	NA	500	NA	NA	500	1.92E+05	NA	5.00E+02
Benzo(a)anthracene	NA	5	0.01	NA	5	NA	2.05E+01	5.00E+00
Benzo(a)pyrene	NA	1.64	0.02	NA	1.64	NA	2.05E+00	1.64E+00
Benzo(b)fluoranthene	NA	5	0.02	NA	5	NA	2.05E+01	5.00E+00
Benzo(g,h,i)perylene	NA	500	NA	NA	500	1.92E+05	NA	5.00E+02
Benzo(k)fluoranthene	NA	5	NA	NA	5	NA	2.05E+02	5.00E+00
bis(2-chloroisopropyl)ether	NA	171	NA	NA	171	2.56E+04	2.13E+02	1.71E+02
bis(2-ethylhexyl)phthalate	NA	50	0.6	NA	50	1.28E+04	1.07E+03	5.00E+01
2-Chlorophenol	NA	0.68	4	NA	4	3.20E+03	NA	4.00E+00
Chrysene	NA	5	33	NA	33	NA	2.05E+03	3.30E+01
Dibenzo(a,h)anthracene	NA	5	0.03	NA	5	NA	2.05E+00	2.05E+00
2,4-Dichlorophenol	NA	0.96	2	NA	2	1.92E+03	NA	2.00E+00
Di-n-butylphthalate	NA	13.7	400	NA	400	6.40E+04	NA	4.00E+02
2,4-Dimethylphenol	NA	1.51	70	NA	70	1.28E+04	NA	7.00E+01
2,4-Dinitrophenol	NA	3.3	0.17	NA	3.3	1.28E+03	NA	3.30E+00
Di-n-octylphthalate	NA	50	70	NA	70	NA	NA	7.00E+01
Fluoranthene	NA	500	100	NA	500	2.56E+04	NA	5.00E+02
Fluorene	NA	360	100	NA	360	2.56E+04	NA	3.60E+02
Indeno(1,2,3-cd)pyrene	NA	5	0.04	NA	5	NA	2.05E+01	5.00E+00
2-Methylphenol	NA	3.8	NA	NA	3.8	3.20E+04	NA	3.80E+00
4-Methylphenol	NA	3.8	NA	NA	3.8	6.40E+04	NA	3.80E+00
Naphthalene	NA	100	2	NA	100	2.62E+02	6.13E+02	1.00E+02
N-Nitrosodiphenylamine	NA	6.46	NA	NA	6.46	NA	3.05E+03	6.46E+00
Pentachlorophenol	NA	3.3	0.1	NA	3.3	3.20E+03	3.74E+01	3.30E+00
Phenanthrene	NA	110	NA	NA	110	1.92E+05	NA	1.10E+02
Phenol	NA	50	400	NA	400	1.92E+05	NA	4.00E+02
Pyrene	NA	500	100	NA	500	1.92E+04	NA	5.00E+02
2,4,5-Trichlorophenol	NA	4.56	400	NA	400	6.40E+04	NA	4.00E+02
2,4,6-Trichlorophenol	NA	0.66	3	NA	3	7.04E+02	1.36E+03	3.00E+00

Table A-4
Calculation of Type 1 Risk Reduction Standards (RRS) for Soil
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	A Appendix III, Table 2 (mg/kg)	B Notification Conc, Soil (mg/kg)	C Type 1 GW Conc x100 (mg/L)	D Leachate Test (mg/kg)	E Maximum of A, B, C, D (mg/kg)	F Calculated Residential Target Concentrations (mg/kg) Non-Cancer	G Cancer	Type 1 RRS (Min of E, F, G) (mg/kg)
Pesticides / Polychlorinated Biphenyls								
Aroclor 1016	NA	1.55	0.05	NA	1.55	4.48E+01	2.13E+02	1.55E+00
Aroclor 1260	NA	1.55	0.05	NA	1.55	NA	7.47E+00	1.55E+00
Aldrin	NA	0.66	0.002	NA	0.66	1.92E+01	8.79E-01	6.60E-01
alpha-Endosulfan	NA	10	0.2	NA	10	3.84E+03	NA	1.00E+01
alpha-BHC	NA	0.66	0.17	NA	0.66	5.12E+03	2.37E+00	6.60E-01
beta-BHC	NA	0.66	0.17	NA	0.66	NA	8.30E+00	6.60E-01
beta-Endosulfan	NA	10	0.2	NA	10	3.84E+03	NA	1.00E+01
Chlordane	NA	9.2	0.2	NA	9.2	3.20E+02	4.27E+01	9.20E+00
delta-BHC	NA	25	NA	NA	25	5.12E+02	3.29E+05	2.50E+01
DDD	NA	0.66	0.01	NA	0.66	NA	6.23E+01	6.60E-01
DDE	NA	0.66	0.01	NA	0.66	NA	4.39E+01	6.60E-01
DDT	NA	0.66	0.01	NA	0.66	3.20E+02	4.39E+01	6.60E-01
Dieldrin	NA	0.66	0.002	NA	0.66	3.20E+01	9.34E-01	6.60E-01
Endosulfan sulfate	NA	1.65	0.01	NA	1.65	3.84E+03	NA	1.65E+00
Endrin	NA	10	0.2	NA	10	1.92E+02	NA	1.00E+01
Endrin aldehyde	NA	10	0.01	NA	10	1.92E+02	NA	1.00E+01
Endrin ketone	NA	10	0.01	NA	10	1.92E+02	NA	1.00E+01
Heptachlor epoxide	NA	1.65	0.02	NA	1.65	8.32E+00	1.64E+00	1.64E+00
Lindane	NA	0.66	0.02	NA	0.66	1.92E+02	1.36E+01	6.60E-01
Methoxychlor	NA	10	4	NA	10	3.20E+03	NA	1.00E+01

Notes:
NA = No value available
DL = Analytical detection limit
mg/kg = Milligrams per kilogram
L = Liter

References:

1. Georgia EPD, Risk Reduction Standards, 391-3-19-.07. Available online at: http://www.gaepd.org/Documents/hsraguideCSRRRS.html.
Values presented in columns A through D are obtained from Appendices I and III.
2. USEPA Risk Assessment Guidance for Superfund (RAGS): Volume I - Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals). December 1991. EPA/540/R-92/003.

Calculation of Residential Risk-Based Target Concentrations:

Noncarcinogens:

$$C = \frac{HI*BW*AT*365\ days/year}{EF*ED*[(1/RfD_o*CF*IR)+(1/RfD_i*IR_a*(1/VF+1/PEF)]} \quad \text{(Eq. 7, RAGS Part B)}$$

Carcinogens:

$$C = \frac{TR*BW*AT*365\ days/year}{EF*ED*[(CSF_o*IR*CF)+(CSF_i*IR_a*(1/VF+1/PEF)]} \quad \text{(Eq. 6, RAGS Part B)}$$

where:

HI = Hazard Index (unitless)	1
BW = Body Weight (kg), adult	70
AT = Averaging Time (years), adult, carcinogen	70
AT = Averaging Time (years), adult, noncarcinogen	30
EF = Exposure Frequency (days/year)	350
ED = Exposure Duration (years), adult	30
RfD_o = Oral Reference Dose	Chemical-specific
IR = Ingestion Rate (mg/day), adult	114
TR = Target Risk (unitless)	1.00E-05
TR for Class C carcinogen	1.00E-04
CSF_o = Oral Cancer Slope Factor	Chemical-specific
IR_a = Air Inhalation Rate (m^3/day), adult	15
1/PEF = Inv of Particulate Emission Factor (kg/m^3)	2.16E-10
CF = Conversion Factor (kg/mg)	1.00E-06
1/VF = Volatilization Factor (kg/m^3)	Chemical-specific
RfD_i = Inhalation Reference Dose	Chemical-specific
CSF_i = Inhalation Slope Factor	Chemical-specific

Table A-5
Soil-to-Air Volatilization Factors Used in Derivation of RRS
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	Volatile?	D_i (cm^2/s)	H' unitless	H ($atm\text{-}m^3/mol$)	K_{oc} (cm^3/g)	D_{ei} (cm^2/s)	K_d (cm^3/g)	K_{as} (g soil/cm^3 air)	a (cm^2/s)	VF (m^3/kg)
Volatile Organic Compounds										
Acetone	v	1.06E-01	1.43E-03	3.49E-05	2.36E+00	7.49E-02	4.73E-02	3.03E-02	4.58E-04	6.71E+03
Benzene	v	8.95E-02	2.27E-01	5.53E-03	1.46E+02	6.33E-02	2.92E+00	7.78E-02	9.86E-04	4.53E+03
Bromoform	v	3.57E-02	2.19E-02	5.33E-04	3.18E+01	2.53E-02	6.36E-01	3.44E-02	1.75E-04	1.08E+04
2-Butanone	v	9.14E-02	2.33E-03	5.67E-05	4.51E+00	6.47E-02	9.02E-02	2.58E-02	3.37E-04	7.83E+03
Carbon Disulfide	v	1.06E-01	5.89E-01	1.44E-02	2.17E+01	7.53E-02	4.35E-01	1.35E+00	1.62E-02	8.89E+02
Chlorobenzene	v	7.21E-02	1.27E-01	3.10E-03	2.34E+02	5.10E-02	4.68E+00	2.72E-02	2.80E-04	8.58E+03
Chloroethane	v	1.04E-01	4.54E-01	1.11E-02	2.17E+01	7.34E-02	4.34E-01	1.05E+00	1.29E-02	1.05E+03
Cyclohexane	v	8.00E-02	6.13E+00	1.50E-01	1.46E+02	5.66E-02	2.92E+00	2.10E+00	1.69E-02	7.78E+02
1,2-Dibromo-3-Chloropropane	v	3.21E-02	6.01E-03	1.47E-04	1.16E+02	2.27E-02	2.32E+00	2.59E-03	1.20E-05	4.17E+04
1,2-Dichlorobenzene	v	5.62E-02	7.85E-02	1.91E-03	3.83E+02	3.97E-02	7.66E+00	1.03E-02	8.26E-05	1.59E+04
1,3-Dichlorobenzene	v	6.80E-02	7.79E-02	1.90E-03	6.17E+02	4.81E-02	1.23E+01	6.31E-03	6.16E-05	1.84E+04
1,4-Dichlorobenzene	v	5.50E-02	9.85E-02	2.40E-03	3.75E+02	3.89E-02	7.51E+00	1.31E-02	1.04E-04	1.42E+04
Dichlorodifluoromethane	v	7.60E-02	1.40E+01	3.42E-01	4.39E+01	5.38E-02	8.78E-01	1.60E+01	4.11E-02	1.68E+02
1,1-Dichloroethane	v	8.36E-02	2.30E-01	5.60E-03	3.18E+01	5.92E-02	6.36E-01	3.61E-01	4.04E-03	2.12E+03
1,2-Dichloroethane	v	8.57E-02	4.82E-02	1.18E-03	3.96E+01	6.06E-02	7.92E-01	6.09E-02	7.41E-04	5.24E+03
1,1-Dichloroethene	v	8.63E-02	1.07E+00	2.60E-02	3.18E+01	6.10E-02	6.36E-01	1.68E+00	1.55E-02	8.65E+02
cis-1,2-dichloroethene	v	8.84E-02	1.67E-01	4.07E-03	3.96E+01	6.25E-02	7.92E-01	2.11E-01	2.57E-03	2.73E+03
trans-1,2-dichloroethene	v	8.76E-02	1.67E-01	4.07E-03	3.96E+01	6.20E-02	7.92E-01	2.11E-01	2.54E-03	2.75E+03
1,2-Dichloropropane	v	8.13E-02	1.15E-01	2.81E-03	6.07E+01	5.75E-02	1.21E+00	9.50E-02	1.09E-03	4.30E+03
Ethylbenzene	v	6.85E-02	3.22E-01	7.86E-03	4.46E+02	4.84E-02	8.92E+00	3.61E-02	3.53E-04	7.64E+03
Isopropylbenzene (cumene)	v	6.03E-02	4.70E-01	1.15E-02	6.98E+02	4.26E-02	1.40E+01	3.37E-02	2.90E-04	8.43E+03
4-Methyl-2-pentanone	v	6.98E-02	5.64E-03	1.38E-04	1.26E+01	4.93E-02	2.52E-01	2.24E-02	2.23E-04	9.62E+03
Methylene Chloride	v	9.99E-02	1.33E-01	3.24E-03	2.17E+01	7.07E-02	4.35E-01	3.06E-01	4.13E-03	2.12E+03
Styrene	v	7.11E-02	1.12E-01	2.74E-03	4.46E+02	5.03E-02	8.92E+00	1.26E-02	1.28E-04	1.27E+04
1,1,1,2-Tetrachloroethane	v	4.82E-02	1.02E-01	2.49E-03	8.60E+01	3.41E-02	1.72E+00	5.94E-02	4.06E-04	7.08E+03
1,1,2,2-Tetrachloroethane	v	4.89E-02	1.50E-02	3.66E-04	9.49E+01	3.46E-02	1.90E+00	7.90E-03	5.55E-05	1.94E+04
Tetrachloroethylene	v	5.05E-02	7.24E-01	1.76E-02	9.49E+01	3.57E-02	1.90E+00	3.81E-01	2.57E-03	2.65E+03
Toluene	v	7.78E-02	2.71E-01	6.62E-03	2.34E+02	5.50E-02	4.68E+00	5.80E-02	6.41E-04	5.64E+03
1,2,4-Trichlorobenzene	v	3.96E-02	5.81E-02	1.42E-03	1.36E+03	2.80E-02	2.71E+01	2.14E-03	1.22E-05	4.14E+04
1,1,1-Trichloroethane	v	6.48E-02	7.03E-01	1.72E-02	4.39E+01	4.58E-02	8.78E-01	8.01E-01	6.42E-03	1.55E+03
1,1,2-Trichloroethane	v	6.69E-02	3.37E-02	8.22E-04	6.07E+01	4.73E-02	1.21E+00	2.77E-02	2.65E-04	8.82E+03
Trichloroethylene	v	6.87E-02	4.03E-01	9.82E-03	6.07E+01	4.86E-02	1.21E+00	3.32E-01	3.07E-03	2.44E+03
1,2,3-Trichloropropane	v	5.91E-02	7.20E-01	1.75E-02	1.16E+02	4.18E-02	2.32E+00	3.11E-01	2.48E-03	2.73E+03
Vinyl Chloride	v	1.07E-01	1.14E+00	2.77E-02	2.17E+01	7.58E-02	4.35E-01	2.62E+00	2.63E-02	5.82E+02
Xylenes	v	8.47E-02	2.12E-01	5.17E-03	3.83E+02	5.99E-02	7.66E+00	2.77E-02	3.35E-04	7.85E+03
Semivolatile Organic Compounds										
Acenaphthene	v	5.06E-02	7.52E-03	1.83E-04	5.03E+03	3.58E-02	1.01E+02	7.48E-05	5.44E-07	1.96E+05
Acenaphthylene	n	4.39E-02	4.74E-03	1.16E-04	6.92E+03	3.10E-02	1.38E+02	3.43E-05	2.16E-07	NA
Acetophenone	v	6.52E-02	4.25E-04	1.04E-05	5.19E+01	4.61E-02	1.04E+00	4.10E-04	3.84E-06	6.40E+04
Anthracene	v	3.90E-02	2.27E-03	5.54E-05	1.64E+04	2.76E-02	3.27E+02	6.95E-06	3.89E-08	7.32E+05
Benzo(a)anthracene	n	NA	4.91E-04	1.20E-05	1.77E+05	NA	3.54E+03	1.39E-07	NA	NA
Benzo(a)pyrene	n	NA	1.87E-05	4.56E-07	5.87E+05	NA	1.17E+04	1.59E-09	NA	NA
Benzo(b)fluoranthene	n	NA	2.69E-05	6.56E-07	5.99E+05	NA	1.20E+04	2.24E-09	NA	NA
Benzo(g,h,i)perylene	n	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	n	NA	2.39E-05	5.83E-07	5.87E+05	NA	1.17E+04	2.03E-09	NA	NA
bis(2-chloroisopropyl)ether	n	6.30E-02	4.60E-03	1.12E-04	6.10E+01	4.46E-02	1.22E+00	3.77E-03	3.41E-05	NA
bis(2-ethylhexyl)phthalate	n	NA	1.10E-05	2.68E-07	1.20E+05	NA	2.39E+03	4.60E-09	NA	NA
2-Chlorophenol	v	6.61E-02	4.58E-04	1.12E-05	3.07E+02	4.68E-02	6.13E+00	7.47E-05	7.10E-07	1.30E+05
Chrysene	n	NA	2.14E-04	5.21E-06	1.81E+05	NA	3.61E+03	5.92E-08	NA	NA
Dibenzo(a,h)anthracene	n	NA	5.76E-06	1.41E-07	1.91E+06	NA	3.82E+04	1.51E-10	NA	NA
2,4-Dichlorophenol	n	6.37E-02	1.75E-04	4.28E-06	4.92E+02	4.50E-02	9.84E+00	1.78E-05	1.63E-07	NA
Di-n-butylphthalate	n	NA	7.40E-05	1.80E-06	1.16E+03	NA	2.31E+01	3.20E-06	NA	NA
2,4-Dimethylphenol	n	6.22E-02	3.89E-05	9.49E-07	4.92E+02	4.40E-02	9.84E+00	3.95E-06	3.54E-08	NA
2,4-Dinitrophenol	n	NA	3.52E-06	8.58E-08	4.61E+02	NA	9.22E+00	3.81E-07	NA	NA
Di-n-octylphthalate	n	1.51E-02	2.74E-03	6.68E-05	8.32E+07	1.07E-02	1.66E+06	1.65E-09	3.57E-12	NA
Fluoranthene	n	NA	3.62E-04	8.83E-06	5.55E+04	NA	1.11E+03	3.27E-07	NA	NA
Fluorene	v	4.40E-02	3.93E-03	9.59E-05	9.16E+03	3.11E-02	1.83E+02	2.15E-05	1.36E-07	3.92E+05
Indeno(1,2,3-cd)pyrene	n	NA	1.42E-05	3.46E-07	1.95E+06	NA	3.90E+04	3.64E-10	NA	NA
2-Methylphenol	n	7.28E-02	4.91E-05	1.20E-06	3.07E+02	5.15E-02	6.13E+00	8.01E-06	8.38E-08	NA
4-Methylphenol	n	7.24E-02	4.09E-05	9.98E-07	3.00E+02	5.12E-02	6.01E+00	6.81E-06	7.08E-08	NA
Naphthalene	v	6.05E-02	1.80E-02	4.39E-04	1.54E+03	4.28E-02	3.09E+01	5.83E-04	5.06E-06	6.42E+04
N-Nitrosodiphenylamine	n	5.59E-02	4.95E-05	1.21E-06	2.63E+03	3.95E-02	5.26E+01	9.40E-07	7.55E-09	NA
Pentachlorophenol	n	6.60E-02	1.00E-06	2.44E-08	4.96E+03	4.67E-02	9.92E+01	1.01E-08	9.58E-11	NA
Phenanthrene	n	NA	5.40E-03	1.32E-04	1.41E+04	NA	2.83E+02	1.91E-05	NA	NA
Phenol	n	8.34E-02	1.36E-05	3.32E-07	1.87E+02	5.90E-02	3.74E+00	3.63E-06	4.35E-08	NA
Pyrene	n	2.78E-02	4.87E-04	1.19E-05	5.43E+04	1.97E-02	1.09E+03	4.48E-07	1.79E-09	NA
2,4,5-Trichlorophenol	n	5.60E-02	6.62E-05	1.61E-06	1.78E+03	3.96E-02	3.55E+01	1.86E-06	1.50E-08	NA
2,4,6-Trichlorophenol	n	3.14E-02	1.06E-04	2.59E-06	1.78E+03	2.22E-02	3.55E+01	2.99E-06	1.35E-08	NA

Table A-5
Soil-to-Air Volatilization Factors Used in Derivation of RRS
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent	Volatile?	D_i (cm^2/s)	H' unitless	H ($atm-m^3/mol$)	K_{oc} (cm^3/g)	D_{ei} (cm^2/s)	K_d (cm^3/g)	K_{as} (g soil/cm^3 air)	a (cm^2/s)	VF (m^3/kg)
Pesticides / Polychlorinated Biphenyls										
Aroclor 1016	n	4.69E-02	8.18E-03	1.99E-04	4.77E+04	3.32E-02	9.54E+02	8.57E-06	5.78E-08	NA
Aroclor 1260	n	3.53E-02	1.37E-02	3.35E-04	3.50E+05	2.49E-02	6.99E+03	1.96E-06	9.96E-09	NA
Aldrin	n	NA	1.80E-03	4.39E-05	8.20E+04	NA	1.64E+03	1.10E-06	NA	NA
alpha-Endosulfan	n	NA	3.55E-05	8.66E-07	1.58E+04	NA	3.17E+02	1.12E-07	NA	NA
alpha-BHC	n	NA	2.10E-04	5.12E-06	2.81E+03	NA	5.61E+01	3.74E-06	NA	NA
beta-BHC	n	NA	2.10E-04	5.12E-06	2.81E+03	NA	5.61E+01	3.74E-06	NA	NA
beta-Endosulfan	n	NA	3.55E-05	8.66E-07	1.58E+04	NA	3.17E+02	1.12E-07	NA	NA
Chlordane	n	NA	1.99E-03	4.85E-05	3.38E+04	NA	6.76E+02	2.94E-06	NA	NA
delta-BHC	n	NA	1.77E-04	4.32E-06	8.51E+03	NA	1.70E+02	1.04E-06	NA	NA
DDD	n	4.06E-02	2.70E-04	6.58E-06	1.18E+05	2.87E-02	2.35E+03	1.15E-07	6.70E-10	NA
DDE	n	4.08E-02	1.70E-03	4.15E-05	1.18E+05	2.88E-02	2.35E+03	7.24E-07	4.24E-09	NA
DDT	n	3.79E-02	3.40E-04	8.30E-06	1.69E+05	2.68E-02	3.37E+03	1.01E-07	5.50E-10	NA
Dieldrin	n	2.33E-02	4.09E-04	9.97E-06	2.01E+04	1.65E-02	4.02E+02	1.02E-06	3.40E-09	NA
Endosulfan Sulfate	n	3.37E-02	1.33E-05	3.24E-07	9.85E+03	2.38E-02	1.97E+02	6.75E-08	3.27E-10	NA
Endrin	n	3.62E-02	4.09E-04	9.97E-06	2.01E+04	2.56E-02	4.02E+02	1.02E-06	5.29E-09	NA
Endrin aldehyde	n	3.62E-02	1.71E-04	4.17E-06	3.27E+03	2.56E-02	6.54E+01	2.61E-06	1.36E-08	NA
Endrin ketone	n	3.62E-02	8.26E-07	2.01E-08	9.72E+03	2.56E-02	1.94E+02	4.25E-09	2.21E-11	NA
Heptachlor epoxide	n	NA	8.59E-04	2.09E-05	1.01E+04	NA	2.02E+02	4.25E-06	NA	NA
Lindane	n	NA	2.10E-04	5.12E-06	2.81E+03	NA	5.61E+01	3.74E-06	NA	NA
Methoxychlor	n	NA	8.30E-06	2.02E-07	2.69E+04	NA	5.38E+02	1.54E-08	NA	NA

Notes:
v = Volatile compound, defined as having a Henry's Law greater than 10^{-5} $atm-m^3/mol$
n = Non-volatile compound
NA = Not available

Units:
atm = Atmosphere
cm = Centimeter
m = Meter
s = Second
g = Gram
kg = Kilogram
mol = Mole

References:

1. USEPA Regional Screening Level (RSL) Tables - November, 2012. Available online at http://www.epa.gov/region9/superfund/prg/
2. USEPA Risk Assessment Guidance for Superfund (RAGS): Volume I - Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals). December 1991. EPA/540/R-92/003.

Derivation of VF Values:

$$VF = \frac{LS \times V \times DH}{A} \times \frac{(p \times a \times T)^{1/2}}{2 \times D_{ei} \times E \times K_{as} \times 10^{-3}\ kg/g} \quad \text{(Eq. 8, RAGS Part B)}$$

where:

VF = Soil-to-air volatilization factor (m3/kg)	Calculated
LS = Length of side of contaminated area (m)	45
V = Wind speed in mixing zone (m/s)	2.25
DH = Diffusion height (m)	2
A = Area of contamination (cm^2)	2.03E+07
p = Value of pi (π)	3.141592654
a = (cm^2/s):	$\frac{D_{ei} \times E}{E + (rs \times ((1-E)/K_{as}))}$
T = Exposure interval (s), industrial:	7.88E+08
r_s = Density of soil solids (g/cm^3):	2.65
OC = Soil organic carbon content fraction (unitless):	0.02
D_{ei} = Effective diffusivity (cm^2/s):	$D_i \times E^{0.33}$
D_i = Molecular diffusivity (cm^2/s):	Chemical-specific
E = Total soil porosity (unitless):	0.35
K_{as} = Soil/air partition coefficient (g soil/cm^3 air):	$(H/K_d) \times 41$
H = Henry's law constant ($atm-m^3/mol$):	Chemical-specific
K_d = Soil-water partition coefficient (cm^3/g):	$K_{oc} \times OC$
K_{oc} = Organic carbon partition coefficient (cm^3/g):	Chemical-specific

Table A-6
Toxicity Values Used in Derivation of RRS
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent		RfD_o (mg/kg-d)	Source	RfD_i (mg/kg-d)	CSF_o $(mg/kg\text{-}d)^{-1}$	Source	CSF_i $(mg/kg\text{-}d)^{-1}$	WOE
Volatile Organic Compounds								
Acetone	67-64-1	9.00E-01	IRIS	8.90E+00	NA	---	NA	ND
Benzene	71-43-2	4.00E-03	IRIS	8.60E-03	5.50E-02	IRIS	2.73E-02	A
Bromoform	75-25-2	2.00E-02	IRIS	NA	7.90E-03	IRIS	3.85E-03	B2
2-Butanone	78-93-3	6.00E-01	IRIS	1.43E+00	NA	---	NA	NA
Carbon Disulfide	75-15-0	1.00E-01	IRIS	2.00E-01	NA	---	NA	NA
Chlorobenzene	108-90-7	2.00E-02	IRIS	1.40E-02	NA	---	NA	D
Chloroethane	75-00-3	NA	---	2.86E+00	NA	---	NA	ND
Cyclohexane	110-82-7	NA	---	1.71E+00	NA	---	NA	ND
1,2-Dibromo-3-Chloropropane	96-12-8	2.00E-04	PPRTV	5.70E-05	8.00E-01	PPRTV	2.10E+01	ND
1,2-Dichlorobenzene	95-50-1	9.00E-02	IRIS	5.70E-02	NA	---	NA	D
1,3-Dichlorobenzene	541-73-1	9.00E-02	IRIS value for 1,2-dichlorobenzene	5.70E-02	NA	---	NA	ND
1,4-Dichlorobenzene	106-46-7	7.00E-02	IRIS	2.29E-01	5.40E-03	Cal EPA	3.85E-02	ND
Dichlorodifluoromethane	75-71-8	2.00E-01	IRIS	5.70E-02	NA	---	NA	ND
1,1-Dichloroethane	75-34-3	2.00E-01	IRIS	NA	5.70E-03	Cal EPA	5.60E-03	C
1,2-Dichloroethane	107-06-2	6.00E-03	PPRTV Appendix	6.85E-01	9.10E-02	IRIS	9.10E-02	C
1,1-Dichloroethene	75-35-4	5.00E-02	IRIS	5.70E-02	NA	---	NA	C
cis-1,2-dichloroethene	156-59-2	2.00E-03	IRIS	NA	NA	---	NA	NA
trans-1,2-dichloroethene	156-60-5	2.00E-02	IRIS	1.70E-02	NA	---	NA	ND
1,2-Dichloropropane	78-87-5	9.00E-02	ATSDR	1.10E-03	3.60E-02		3.50E-02	NA
Ethylbenzene	100-41-4	1.00E-01	IRIS	2.86E-01	1.10E-02		8.75E-03	D
Isopropylbenzene (cumene)	98-82-8	1.00E-01	IRIS	1.10E-01	NA	---	NA	D
4-Methyl-2-pentanone	108-10-1	8.00E-02	HEAST	8.57E-01	NA	---	NA	NA
Methylene chloride	75-09-2	6.00E-02	IRIS	2.86E-01	2.00E-03	IRIS	1.60E-03	B2
Styrene	100-42-5	2.00E-01	IRIS	2.85E-01	NA	---	NA	ND
1,1,1,2-Tetrachloroethane	630-20-6	3.00E-02	IRIS	NA	2.60E-02	IRIS	2.59E-02	C
1,1,2,2-Tetrachloroethane	79-34-5	2.00E-02	IRIS	NA	2.03E-01	IRIS	2.03E-01	ND
Tetrachloroethylene	127-18-4	6.00E-03	IRIS	1.10E-02	2.10E-03	IRIS	9.10E-04	ND
Toluene	108-88-3	8.00E-02	IRIS	1.43E+00	NA	---	NA	ND
1,2,4-Trichlorobenzene	120-82-1	1.00E-02	IRIS	5.70E-04	2.90E-02	PPRTV	NA	D
1,1,1-Trichloroethane	71-55-6	2.00E+00	IRIS	1.43E+00	NA	---	NA	ND
1,1,2-Trichloroethane	79-00-5	4.00E-03	IRIS	NA	5.70E-02	IRIS	5.60E-02	C
Trichloroethylene	79-01-6	5.00E-04	IRIS	5.70E-04	4.60E-02	IRIS	1.40E-02	ND
1,2,3-Trichloropropane	96-18-4	4.00E-03	IRIS	8.57E-05	3.00E+01	IRIS	NA	ND
Vinyl Chloride	75-01-4	3.00E-03	IRIS	2.85E-02	7.20E-01	IRIS	1.54E-02	A
Xylenes	1330-20-7	2.00E-01	IRIS	2.86E-02	NA	---	NA	ND
Semivolatile Organic Compounds								
Acenaphthene	83-32-9	6.00E-02	IRIS	NA	NA	---	NA	ND
Acenaphthylene	208-96-8	3.00E-01	IRIS value for pyrene	NA	NA	---	NA	D
Acetophenone	98-86-2	1.00E-01	IRIS	NA	NA	---	NA	D
Anthracene	120-12-7	3.00E-01	IRIS	NA	NA	---	NA	ND
Benzo(a)anthracene	56-55-3	NA	---	NA	7.30E-01	ECAO	3.85E-01	B2
Benzo(a)pyrene	50-32-8	NA	---	NA	7.30E+00	IRIS	3.85E+00	B2
Benzo(b)fluoranthene	205-99-2	NA	---	NA	7.30E-01	ECAO	3.85E-01	B2
Benzo(g,h,i)perylene	191-24-2	3.00E-01	IRIS value for pyrene	NA	NA	---	NA	D
Benzo(k)fluoranthene	207-08-9	NA	---	NA	7.30E-02	ECAO	3.85E-01	B2
bis(2-chloroisopropyl)ether	108-60-1	4.00E-02	IRIS	NA	7.00E-02	HEAST	NA	NA
bis(2-ethylhexyl)phthalate	117-81-7	2.00E-02	IRIS	NA	1.40E-02	IRIS	8.40E-03	B2
2-Chlorophenol	95-57-8	5.00E-03	IRIS	NA	NA	---	NA	NA
Chrysene	218-01-9	NA	---	NA	7.30E-03		3.85E-02	B2
Dibenzo(a,h)anthracene	53-70-3	NA	---	NA	7.30E+00		4.20E+00	B2
2,4-Dichlorophenol	120-83-2	3.00E-03	IRIS	NA	NA	---	NA	NA
Di-n-butylphthalate	84-74-2	1.00E-01	IRIS	NA	NA	---	NA	NA
2,4-Dimethylphenol	105-67-9	2.00E-02	IRIS	NA	NA	---	NA	NA
2,4-Dinitrophenol	51-28-5	2.00E-03	IRIS	NA	NA	---	NA	NA
Di-n-octylphthalate	117-84-0	NA	---	NA	NA	---	NA	NA
Fluoranthene	206-44-0	4.00E-02	IRIS	NA	NA	---	NA	NA
Fluorene	86-73-7	4.00E-02	IRIS	NA	NA	---	NA	NA
Indeno(1,2,3-cd)pyrene	193-39-5	NA	---	NA	7.30E-01	ECAO	3.85E-01	B2
2-Methylphenol	95-48-7	5.00E-02	IRIS	1.70E-01	NA	---	NA	NA
4-Methylphenol	106-44-5	1.00E-01	ATSDR	1.70E-01	NA	---	NA	NA
Naphthalene	91-20-3	2.00E-02	IRIS	8.57E-04	NA	---	1.19E-01	C
N-Nitrosodiphenylamine	86-30-6	NA	---	NA	4.90E-03		9.00E-03	B2
Pentachlorophenol	87-86-5	5.00E-03	IRIS	NA	4.00E-01	IRIS	1.79E-02	NA
Phenanthrene	85-01-8	3.00E-01	IRIS value for pyrene	NA	NA	---	NA	D
Phenol	108-95-2	3.00E-01	IRIS	5.70E-02	NA	---	NA	NA
Pyrene	129-00-0	3.00E-02	IRIS	NA	NA	---	NA	NA
2,4,5-Trichlorophenol	95-95-4	1.00E-01	IRIS	NA	NA	---	NA	NA
2,4,6-Trichlorophenol	88-06-2	1.10E-03	PPRTV	NA	1.10E-02	IRIS	1.09E-02	B2

Table A-6
Toxicity Values Used in Derivation of RRS
Former Oxford Chemicals Property, Chamblee, Georgia

Constituent		RfD_o (mg/kg-d)	Source	RfD_i (mg/kg-d)	CSF_o $(mg/kg\text{-}d)^{-1}$	Source	CSF_i $(mg/kg\text{-}d)^{-1}$	WOE
Pesticides / Polychlorinated Biphenyls								
Aroclor 1016	12674-11-2	7.00E-05	IRIS	NA	7.00E-02	RSL	7.00E-02	B2
Aroclor 1260	11096-82-5	NA	---	NA	2.00E+00	RSL	2.00E+00	B2
Aldrin	309-00-2	3.00E-05	IRIS	NA	1.70E+01	IRIS	1.72E+01	B2
alpha-Endosulfan	95-99-98	6.00E-03	IRIS value for endosulfan	NA	NA	---	NA	NA
alpha-BHC	319-84-6	8.00E-03	ATSDR	NA	6.30E+00	IRIS	6.30E+00	B2
beta-BHC	319-85-7	NA	---	NA	1.80E+00	IRIS	1.86E+00	B2
beta-Endosulfan	33213-65-9	6.00E-03	IRIS value for endosulfan	NA	NA	---	NA	NA
Chlordane	12789-03-6	5.00E-04	IRIS	2.00E-04	3.50E-01	IRIS	3.50E-01	B2
delta-BHC	319-86-8	8.00E-04	Adjusted value for beta-BHC	NA	NA	---	1.60E+00	B2
DDD	72-54-8	NA	---	NA	2.40E-01	IRIS	2.40E-01	B2
DDE	72-55-9	NA	---	NA	3.40E-01	IRIS	3.40E-01	B3
DDT	50-29-3	5.00E-04	IRIS	NA	3.40E-01	IRIS	3.40E-01	B4
Dieldrin	60-57-1	5.00E-05	IRIS	NA	1.60E+01	IRIS	1.60E+01	B2
Endosulfan sulfate	1031-07-8	6.00E-03	IRIS value for endosulfan	NA	NA	---	NA	ND
Endrin	72-20-8	3.00E-04	IRIS	NA	NA	---	NA	D
Endrin aldehyde	7421-93-4	3.00E-04	IRIS value for endrin	NA	NA	---	NA	ND
Endrin ketone	53494-70-5	3.00E-04	IRIS value for endrin	NA	NA	---	NA	ND
Heptachlor epoxide	1024-57-3	1.30E-05	IRIS	NA	9.10E+00	IRIS	9.10E+00	B2
Lindane	58-89-9	3.00E-04	IRIS	NA	1.10E+00	Cal EPA	1.09E+00	NA
Methoxychlor	72-43-5	5.00E-03	IRIS	NA	NA	---	NA	D

Notes
RfD = Reference Dose (o = oral ingestion, i = inhalation)
RfC = Reference Concentration
CSF = Cancer Slope Factor (o = oral ingestion, i = inhalation)
IUR = Inhalation Unit Risk
WOE = Weight-of-evidence narrative

Toxicity values are obtained from USEPA Regional Screening Level (RSL) Tables, last updated November, 2012. Online at: http://www.epa.gov/region9/superfund/prg/
Values contained in RSL tables come from the following sources:
IRIS = USEPA Integrated Risk Information System (IRIS). Online at: http://www.epa.gov/iris. Values current as of February 2013.
PPRTV = Provisional Peer-Reviewed Toxicity Values
HEAST = USEPA Health Effects Assessment Summary Tables. July 1997. EPA 540/R-97-036.
ATSDR = Agency for Toxic Substances and Disease Registry toxicological profiles. Online at: http://www.atsdr.cdc.gov/toxprofiles/index.asp
ECAO = Environmental Criteria and Assessment Office
Cal EPA = California Environmental Protection Agency

Appendix F
Threatened Species Information

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
WILDLIFE RESOURCES DIVISION

Known occurrences of special concern plants, animals and natural communities
Chamblee, GA, SW Quarter Quad — Quarter Quad Code: 3308483SW

Find details for these species at Georgia Rare Species and Natural Community Data and NatureServe Explorer.

[US] indicates species with federal status (Protected or Candidate).
Species that are federally protected in Georgia are also state protected.
[GA] indicates Georgia protected species.
link to species profile on our site (not available for all species).
link to report for element on NatureServe Explorer (only available for animals and plants).

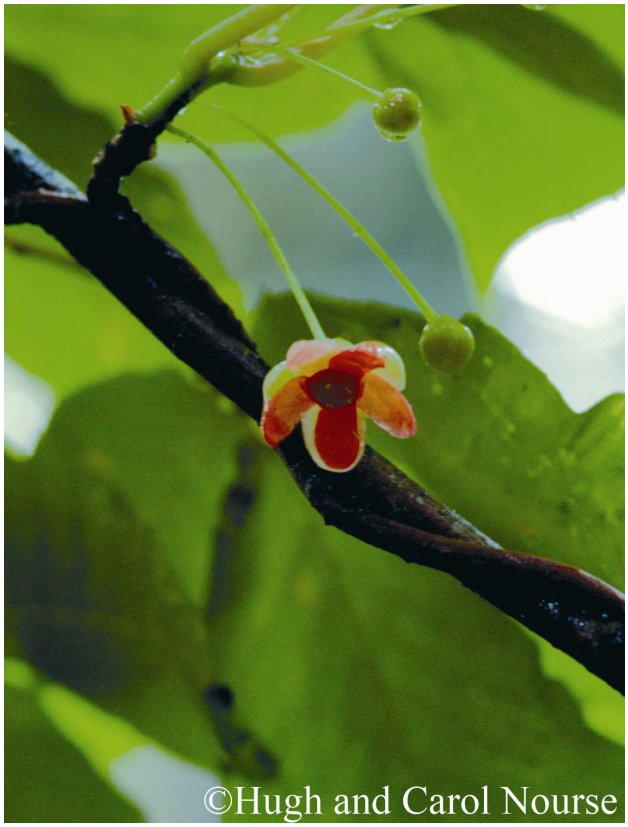
Animal Occurrences

- *Elliptio arctata* (Delicate Spike) **[GA]** - mollusk

Plant Occurrences

- *Schisandra glabra* (Bay Star-vine) **[GA]**

Generated from Georgia DNR's NatureServe Biotics conservation database on October 02, 2012



Common Name: BAY STAR-VINE

Scientific Name: *Schisandra glabra* (Brickell) Rehder

Other Commonly Used Names: climbing-magnolia, magnolia-vine

Previously Used Scientific Names: *Schisandra coccinea* Michaux

Family: Schisandraceae (star-vine)

Rarity Ranks: G3/S2

State Legal Status: Threatened

Federal Legal Status: none

Federal Wetland Status: none

Description: Woody **vine**, twining up trees and forming low thickets on the ground; **bark** is gray and bumpy on older vines. **Leaves** ¾ - 5 inches (2 - 13 cm) long and ⅜ - 3 inches (1 - 8 cm) wide, oval with tapering leaf bases, pointed tips, and widely spaced teeth along the margins; spicy-smelling when crushed. **Leaf stalks** up to ⅜ - 2¾ inches (1 - 7 cm) long. **Female and male flowers** are on the same plant, drooping on delicate stalks 1 - 2 inches (2.5 - 5 cm) long; both female and male flowers with 9 - 12 rounded, red and green tepals (petals + sepals). **Female**

flowers with 6 - 12 pistils, **male flowers** with stamens embedded in a small, flattened disk. **Fruit** a round or oval, red berry, up to ⅜ inch (4 - 8 mm) wide and ½ inch (0.5 - 1.5 cm) long, dangling in small, loose bunches.

Similar Species: Climbing hydrangea (*Decumaria barbara*) attaches to trees with many, hairy roots; its leaves are opposite, and its white flowers are in flat-topped clusters.

Related Rare Species: None in Georgia.

Habitat: Moist, deciduous hardwood forests, often with beech, usually on lower slopes, stream terraces, and floodplains.

Life History: Bay starvine reproduces vegetatively – by rooting at the nodes of vines sprawling across the ground – and sexually. It is monoecious – male and female reproductive parts are in different flowers on the same plant. Female flowers are probably pollinated by flies and flying beetles, which are attracted to the pollen offered by male flowers and to the similar coloration of the female flowers. Female flowers do not offer any pollen or nectar rewards, but are pollinated when insects, carrying pollen from a previously visited male flower, are attracted by the similar color of the female flowers and search for pollen among its numerous pistils. Female flowers are produced higher on the vines than staminate flowers and are more abundant than male flowers on larger, older vines. Smaller, younger vines tend to produce only male flowers.

Survey Recommendations: Surveys are best conducted during flowering (May–June) and fruiting (July–August).

Range: Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Kentucky, Tennessee, South Carolina, and North Carolina; the Sierra Madre of Mexico.

Threats: Logging and clearing of habitat; conversion of habitat to pine plantations and developments. Invasion by exotic pest plants such as Japanese honeysuckle and English ivy.

Georgia Conservation Status: Approximately 50 populations are known, 14 on conservation land.

Conservation and Management Recommendations: Avoid logging or other clearing near streams. Eradicate exotic pest plants such as Japanese honeysuckle and English ivy.

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Author of Species Account: Linda G. Chafin

Date Compiled or Updated:
L.Chafin, Aug. 2008: original account
D.Weiler Jan. 2010: added pictures


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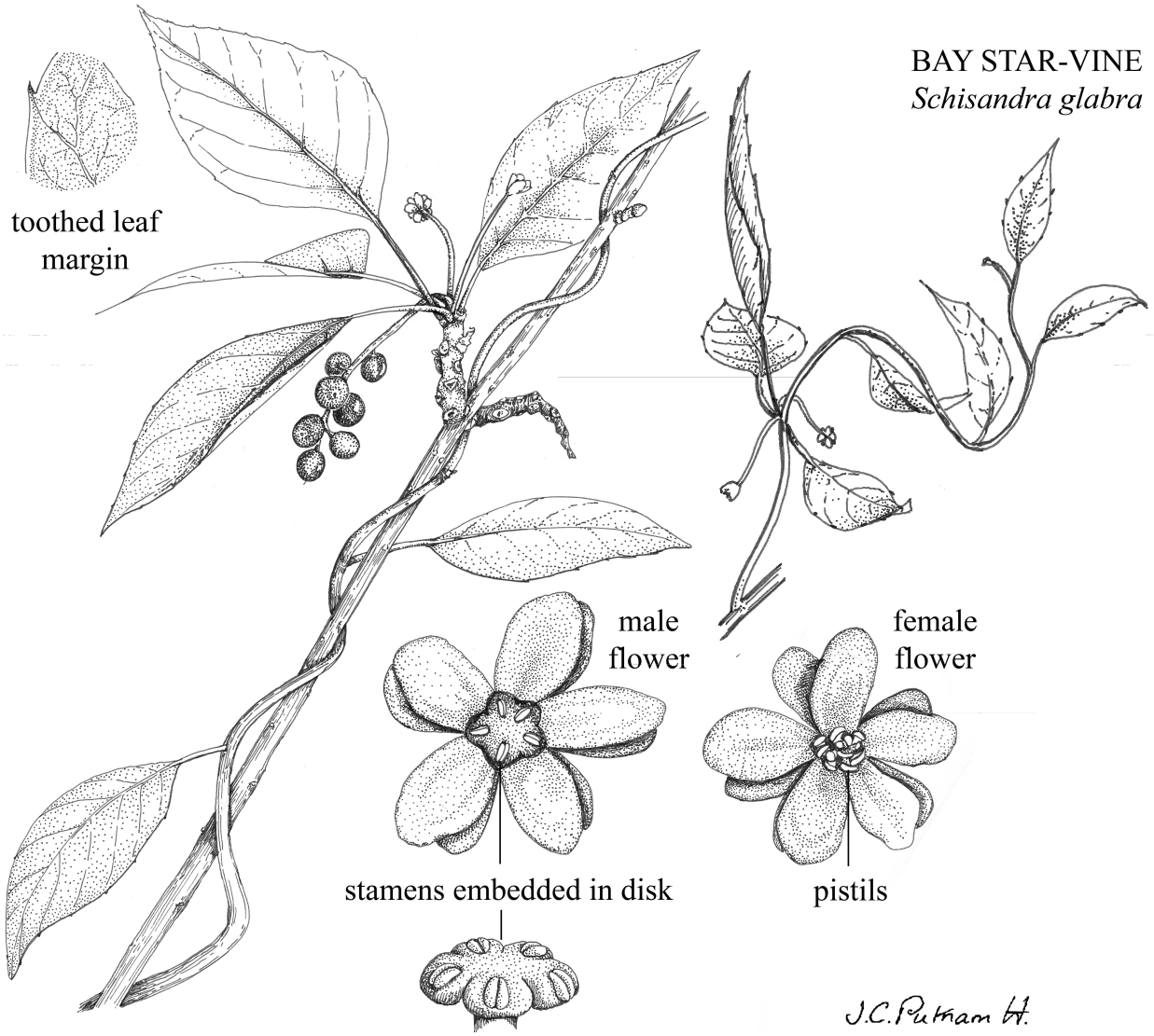
BAY STAR-VINE
Schisandra glabra
toothed leaf margin
male flower
female flower
stamens embedded in disk
pistils
J.C. Putnam H.

Delicate spike (*Elliptio arctata*) 64 mm (2½ inches). Mill Creek, Baker Co., Georgia. Photo by Jason Wisniewski, GA DNR. Specimen courtesy of Gerry Dinkins.

Common Name: DELICATE SPIKE

Scientific Name: *Elliptio arctata* Conrad

Other Commonly Used Names: none

Previously Used Scientific Names: none

Family: Unionidae

Rarity Ranks: G2G3Q/S1S3

State Legal Status: Endangered

Federal Legal Status: none

Description: Typically compressed to moderately inflated shell, elliptical or elongate in shape. Maximum length is approximately 3.5 inches (90 mm). Anterior margin is broadly rounded while posterior margin is typically rounded to biangulate. Ventral margin relatively straight to slightly arcuate. Posterior ridge sharply angular to round in larger individuals. Umbos slightly projecting above hingeline. Periostracum typically dark brown to black in adults. Juveniles may be yellow to green with fine rays near the umbo. Left valve with two triangular stumpy pseudocardinal teeth and two low and straight lateral teeth. Right valve with one low, serrated

pseudocardinal tooth and one typically high, straight, and long lateral tooth. Umbo cavity typically shallow and wide. Nacre variable but typically bluish white to salmon.

Similar Species: Alabama spike (*Elliptio arca*). The delicate spike can be distinguished from the Alabama spike by the former typically having a thinner shell and shorter length. Furthermore, the delicate spike is typically more inflated and has heavier teeth.

Habitat: Gravel or sand shoals in medium to large rivers. Occasionally found in sand-bottomed runs with slow, steady current. Usually found adjacent to or underneath large boulders or limestone bedrock in center channel; rarely found in slack water or silt.

Diet: The diets of unionids are poorly understood but are believed to consist of algae and/or bacteria. Some studies suggest that diets may change throughout the life of a unionid with juveniles collecting organic materials from the substrate though pedal feeding and then developing the ability to filter feed during adulthood.

Life History: The life history of this species is poorly understood, but females are believed to brood glochidia in the spring or summer. Glochidial hosts are unknown.

Survey Recommendations: Surveyors should consider sampling during periods when female individuals are spawning or brooding as this species may have higher detection rates during this period. However, since basic life history information for many of Georgia's unionids is lacking, sampling during periods when closely related species are spawning or brooding may increase probability of detection.

Range: Historically widespread from the Apalachicola River Basin west to the Pearl River in Mississippi, but becoming more restricted throughout its range. Within Georgia, the delicate spike historically occurred in the Mobile and Apalachicola River basins, above and below the Fall Line. It currently appears to be extremely rare or extirpated in the Mobile River basin of Georgia. Only three recent collections of live individuals have been made and few shells have been collected despite extensive sampling in the Conasauga, Coosawattee, and Oostanaula rivers. In the Apalachicola River basin, this species appears to be restricted to the Flint River and its tributaries. The delicate spike has also been reported from the Atlantic Slope of Georgia, but this report may be of a different or unrecognized species.

Threats: Excess sedimentation due to inadequate riparian buffer zones, development, and agriculture covers suitable habitat and could potentially suffocate mussels. Poor agricultural practices may also cause eutrophication and degrade water quality. Incompatible dam operations on the Coosawattee River may be affecting downstream unionids. Excessive agriculture water pumping in the Lower Flint River basin may be affecting individuals occupying smaller streams prone to drying during periods of extreme drought.

Georgia Conservation Status: The delicate spike is not known from any state or federal lands in Georgia. Unlike terrestrial species, the occurrence of an aquatic species on state or federal lands may not eliminate habitat degradation due to the influences of upstream and downstream disturbances.

Conservation and Management Recommendations: Examination of the basic life history was identified as a top research priority needed for the conservation of this species during the 2005 Georgia Wildlife Action Plan. Understanding the basic life history of this species will provide the foundation upon which all other research and conservation actions should be built. The taxonomy of the delicate spike should also be investigated to determine if individuals collected from the Apalachicola River basin and Atlantic Slope drainages are similar to those from the Mobile Basin.

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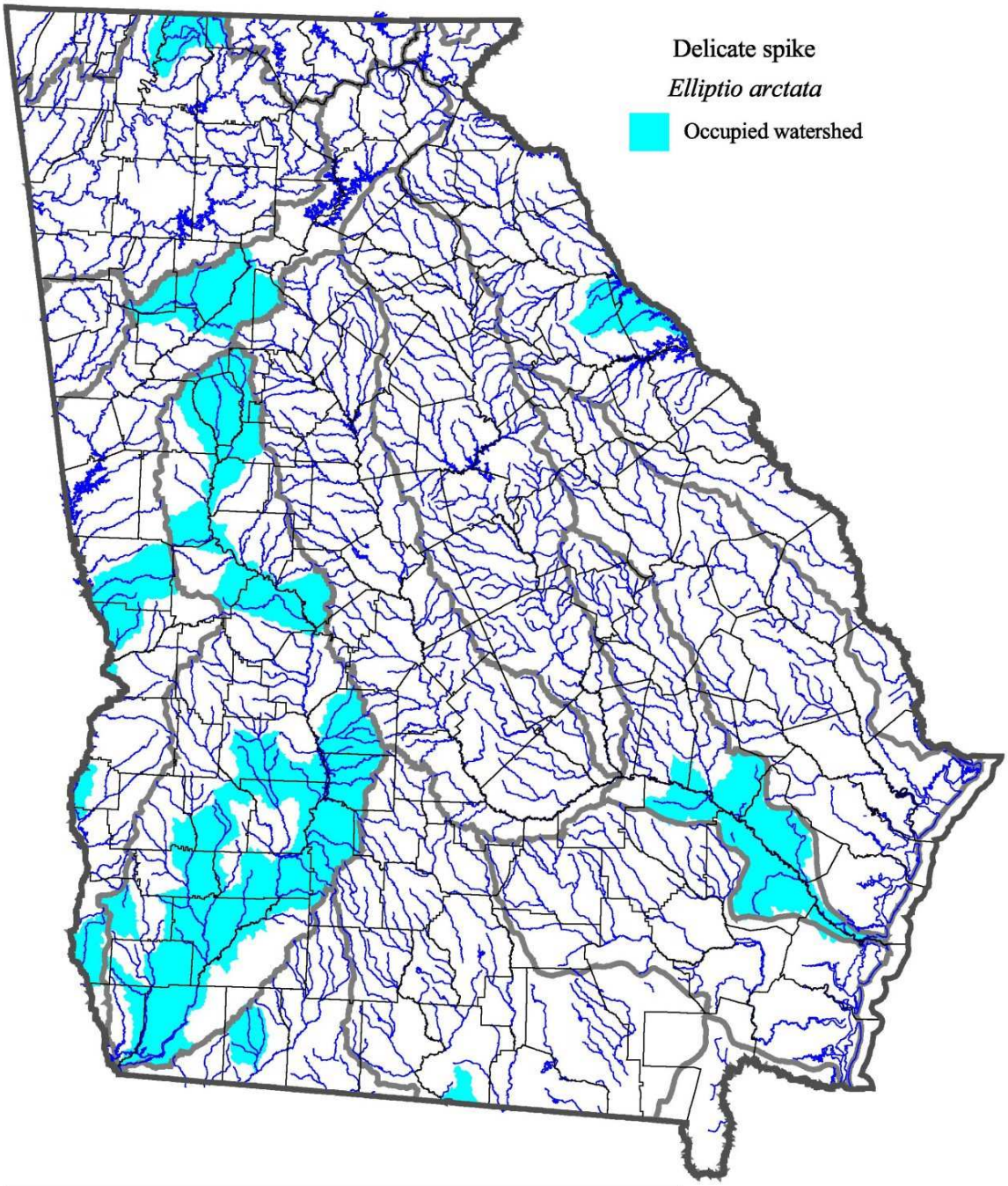
Date Compiled or Updated: September 2008



Watersheds (Huc 10) with known occurrences. Streams, county lines, and major river basin boundaries are also shown. Map generated from GADNR (Nongame Conservation Section) data on January 2009.

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