



**CSX/VAUGHN LANDFILL AND  
BRAMLETTE ROAD MGP SITES**

**FEASE III INVESTIGATION AND  
SITE ASSESSMENT REPORT**

**VOLUME II**

**PREPARED BY:**

**SITE REMEDIATION SERVICES GROUP  
DUKE ENGINEERING & SERVICES, INC.  
400 SOUTH TRYON STREET  
P.O. BOX 1004  
CHARLOTTE, NORTH CAROLINA  
28201-1004**

**JUNE 2000**

---



**APPENDIX  
A**

**CORRESPONDENCE**



2600 Bull Street  
Columbia, SC 29201-1708

COMMISSIONER:  
Douglas E. Bryant

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Brian K. Smith

Rodney L. Grandy

November 13, 1998

ENVIRONMENTAL ENGINEERING  
AND PLANNING SECTION

NOV 17 1998

FILE \_\_\_\_\_

DEALER DATE \_\_\_\_\_

COPY \_\_\_\_\_

ROUTE \_\_\_\_\_

Duke Power  
Attn: Ralph Roberts, P.E.  
526 S. Church St.  
Charlotte, NC 28202-1802

Re: CSXT-Bramlette Road/Vaughn Landfill, Site ID #00801  
Phase III Workplan received April 10, 1997  
Site Visit/Meeting on October 29, 1998  
Greenville County

Dear Mr. Roberts:

The Department has reviewed the referenced workplan proposal. The plan is approved as submitted with the exception that the Department is requesting one additional surface water sampling location in the Reedy River as discussed in the referenced meeting. Enclosed is a monitoring well approval for the installation of up to twenty-five (25) permanent shallow, mid-depth and deep monitoring wells at the referenced site. Please ensure that a copy of this approval is available at the site during installation activities. The analytical results from soil and groundwater samples should be submitted to my attention within thirty (30) days of receipt from the laboratory.

If you have any questions regarding this project please contact me at (803) 734-4666.

Sincerely,

Sarah W. Price, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

cc: Marshall Williams, Director Environmental Real Estate Transactions, 301  
West Bay Street, Suite 800, Jacksonville, FL 32202  
Charles Bristow, Appalachia II District EQC





Date of Issue: November 13, 1998  
Approval No: 300

2600 Bull Street  
Columbia, SC 29201-1708

### Monitoring Well Installation Approval

COMMISSIONER:  
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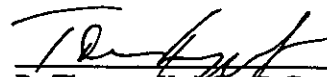
Approval is hereby granted to: **Ralph Roberts**  
(on behalf of): **Duke Power**  
Site ID#: **00801**  
County: **Greenville**

This approval is for the construction of up to twenty-five (25) permanent monitoring wells in accordance with the construction plans and technical specifications submitted to the Department on April 10, 1997. The well(s) are to be constructed within the surficial aquifer for the intended purpose of monitoring groundwater quality, free product thickness, and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well be submitted to Sarah Price within thirty (30) days of completion (of last well(s) installed).
2. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.
3. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Charles Bristow, Appalachia II District, EQC Office (843-241-1090).
4. Please provide groundwater quality analytical data (chemical analyses and/or water level(s)) and associated measurements (i.e., *in-situ* field measurements) to Sarah Price within thirty (30) days of receipt from laboratory.
5. Monitoring wells shall be installed by a well driller certified by the State of South Carolina.
6. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification number.
7. Wells shall be abandoned per R.61-71.10.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Approved by:

  
B. Thomas Knight, P.G., Manager  
Groundwater Quality Section  
Bureau of Water

swp



**Duke Power**  
*Environment, Health & Safety*  
526 South Church Street  
P.O. Box 1006  
Charlotte, NC 28201-1006

February 22, 1999

Dr. Randall Dozier  
The School District of Greenville County  
301 Camperdown Way  
Box 2848  
Greenville, SC 29602-2848

Re: Bramlette Rd. MGP  
Fine Arts School

Dear Dr. Dozier:

Duke Power will start an environmental assessment of the former Bramlette Road Manufactured Gas Plant (MGP) site the third week of February 1999. This site is at the intersection of Bramlette Road and Washington Avenue and is across the street from the School District of Greenville County's Fine Arts School. The assessment will include the installation of twenty-two monitoring wells and the collection of ground water, surface water and soil samples. The purpose of the assessment is to determine where residues from the former MGP operation are located so that a cleanup plan can be developed. The South Carolina Department of Health and Environmental Control (DHEC) has approved the assessment work plan.

We have no reason to think there is an environmental or health problem at the school. First, MGP activities did not take place on the school property. Also, because the school is not down hill from the site, migration of contaminants to the school is not expected.

To confirm contaminants have not migrated to school property we plan to install two monitoring wells on the south side of Bramlette Road and east of the marsh area. If the well locations are on school property we will contact you.

Thank you for your support with this project. If you have any questions please give George Acker a call at 370-4544 or you can contact me at (704) 373-7888.

Sincerely,

Ralph Roberts  
Environment, Health and Safety



**Duke Power**  
*Environment, Health & Safety*  
526 South Church Street  
P.O. Box 1006  
Charlotte, NC 28201-1006

April 14, 1999

Mr. Leroy Lewis  
Director Operations/Maintenance  
The School District of Greenville County  
2 Space Drive  
Taylors, SC 29687

Re: Bramlette Rd. MGP  
Fine Arts School

Dear Mr. Lewis:

Duke Power has been installing groundwater-monitoring wells as part of an environmental assessment of the former Bramlette Road manufactured gas plant site. This site is at the intersection of Bramlette Road and Washington Avenue and is across the street from the School District of Greenville County's Fine Arts School.

As we discussed in mid February, the planned location for two of the wells was south of Bramlette Road and east of the marsh area. A review of the tax property maps indicates that these wells will be located on school system property. Duke will provide you with a copy of the groundwater monitoring results when we receive them from the analytical laboratory.

Thank you for your support with this project. If you have any questions please contact me at (704) 373-7888.

Sincerely,

Ralph Roberts  
Environment, Health and Safety



**APPENDIX  
B**

**Phase III Workplan**

**CSX/VAUGHN LANDFILL AND  
BRAMLETTE ROAD, MGP SITE  
PHASE III WORKPLAN**

**MARCH 21, 1997**

**CSX/VAUGHN LANDFILL AND  
BRAMLETTE ROAD, MGP SITE  
PHASE III WORKPLAN**

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**CSX/VAUGHN LANDFILL AND  
BRAMLETTE ROAD, MGP SITE  
PHASE III WORKPLAN**

**1.0 INTRODUCTION**

This workplan describes the various field and laboratory tasks to be included in the Phase III site investigation of the former Bramlette Rd. Manufactured Gas Plant and Vaughn Landfill sites in Greenville, South Carolina.

**1.1 Site Description and History**

The Bramlette Road Manufactured Gas Plant (MGP) site is located in the north-west quadrant of the Bramlette Road and West Washington Street intersection in the City View section of Greenville, SC. The Vaughn Landfill site is located approximately 800 feet west of the intersection and south of Bramlette Rd. (Figures 1 and 2).

Both sites are owned by CSX Transportation (CSXT) and are part of more extensive CSXT holdings in the vicinity of Bramlette Rd. and east of the railway right-of-way, totaling approximately 40 acres. The MGP site covers an area of 3.69 acres and the landfill covers an area of approximately seven acres.

The MGP site was developed by Southern Public Utilities in 1917. The plant site plan is shown in Figure 3. Plant ownership and operation transferred to Duke Power Company (DPC) in 1935. Piedmont Natural Gas Company purchased the site in 1951 and demolished the gas plant in the late 1950's. The property was sold to Piedmont and Northern Railway in 1963 which became part of the Seaboard Cost Line (CSX) in 1967.

The site was used as a trucking facility during the 1970's and 1980's. The property is currently vacant. Access is restricted with a fence.

The Vaughn Landfill site was developed as an unpermitted demolition landfill in 1988. The depth of debris varies from eight to 14 feet. It is located in the flood plain of the Reedy River. The flood plain has been classified as a wetland by the Army Corps of Engineers (ACE).

## 1.2 Previous Investigations

A phase I investigation was completed by Applied Engineering and Science Inc. (AES) in early 1995. The investigation included 34 soil borings and seven groundwater samples in the landfill and seven soil borings and four surface water samples from the floodplain immediately adjacent to the landfill. Analytical results indicated impact to soil and water by volatile and semi-volatile organic compounds and metals. Results of the investigation are presented in an AES report dated March 1995 and titled "Site Investigation; Soil, Sediment, and Groundwater Sampling; Vaughn Landfill, CSX Real Property."

A phase II investigation was completed by AES in 1996. It included a biological survey in the landfill/wetlands area, the installation of eight monitoring wells to assess groundwater quality, an assessment of the extent of the coal tar in the soil and groundwater in both the landfill area and the former MGP site and a site characterization and a contaminant pathway evaluation. The investigation results are presented in an AES report dated September 1996 entitled "Site Investigation Phase II Vaughn Landfill/Duke Power Sites CSXT Real Properties Bramlette Road Greenville, South Carolina."

### 1.3 Scope and Objectives

The South Carolina Department of Health and Environmental Control (SCDHEC) provided comments to the Phase II Assessment Report and suggestions for additional work in a letter dated December 6, 1996 from Tom Knight to Charles Bristow (Appendix I). Additional guidance was provided in a meeting with the SCDHEC, CSXT, AES, the ACE and DPC held December 18, 1996. The SCDHEC requests additional information on the following:

- Evaluate the potential impact to the fauna from the site contaminants.
- Determine the horizontal and vertical extent of the groundwater contaminant plume.
- Determine the extent of free product coal tar.
- Resample monitoring wells and surface water. Include analyses for Fe and Mn.

The basic objective of Phase III is to collect the data necessary to develop a corrective action plan.

## 2.0 FAUNAL STUDY

### 2.1 Background

The CSXT/Vaughn Landfill site was identified as containing approximately 40 acres of jurisdictional wetland by the ACE in 1994. Results of an investigation by AES indicates the site has been impacted by coal tar residues originating from the former DPC MGP. The site investigation included an evaluation of the effects of the coal tar residue on the

flora of the wetlands. This study was conducted by Environmental Corporation of America. SCDHEC has recommended that the Phase III investigation include a faunal survey of the impacted wetland and compare the results to a nearby wetland not impacted with coal tar residues. Discussions with the Army Corps of Engineers revealed that Chewacla soils (which are present at the CSX site) are not common in this area and finding a comparable control wetland with this soil type would be difficult or impossible. Because of this constraint, we propose to conduct an intensive faunal survey of the CSX site and compare our finding to those reported in the scientific literature.

## 2.2 Rational and Study Design

The site vegetation evaluation by Environmental Corporation of America indicated that most of the wetlands area had some standing water during their sampling work, with deeper water in drainage ditches located on the site. The standing water would leach any soluble coal tar constituents from the soil and also potentially receive coal tar constituents from the groundwater.

This proposed study will sample the fauna which comes in direct contact with the soil (amphibians), mud (amphibians, macrobenthos and some fish) and the water column (fish and zooplankton). Sampling animals from these habitats should represent the "worst case" scenarios, where exposure to coal tar residues would be the greatest.

Two locations are proposed to be sampled. One site will be adjacent to the CSXT/Vaughn Landfill in an area known to be impacted by coal tar residues, based on the investigations by AES and Environmental Corporation of America. The second site is a wetland area along the southern section of Ditch 5 near monitoring well MW5 south of the coal tar plume identified in the 1996 phase II report (Figure 3).

Sampling will consist of backpack shocking or seining for fish, dip netting for frogs and salamanders and net sampling for zooplankton. Aquatic insects will be sampled using qualitative techniques with comparable level of efforts expended at each sampling location. Sampling will be conducted along transects in the two areas. Water samples will be taken at the time of faunal sampling and analyzed for the parameters listed in Section 3.3.

### 3.0 SURFACE WATER SAMPLING

#### 3.1 Previous Sampling and Results

Four surface water samples were collected for the Phase I study (Figure 4). Two samples (WE001 and WE002) from the wetlands east of the Vaughn Landfill and two samples (WW001 and WW002) from the wetlands west of the Vaughn Landfill. These samples were generally analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOC), semi-volatile organic compounds (S-VOC) and Metals. Results were below the detection limit for VOC and S-VOC. The metals Pb, Se and Ba were above the MCL for one or more of the samples. TPH was detected in three samples at concentrations of 4.5 to 40 ppm.

Four surface water samples were collected for the Phase II study (Figure 4). Two samples from the Reedy River (RR1 and RR2). Both samples were below the detection limit for VOC. Both samples contained low levels (<120 parts per billion (ppb)) of Di-N-Butylphthalate (DBP) and the upstream sample also contained 20 ppb Butylbenzylphthalate (BBP). Both compounds are not typically associated with MGP sites. One surface water sample (FD1) was collected from the end of Ditch 5 near where it discharges to the Reedy River. An additional sample (WD1) was collected from a small ditch draining Willard St. and discharging to Ditch 5. Both of these samples

contained low levels DBP and BBP. The Ditch 5 sample also contained nine ppb of Naphthalene.

### 3.2 Proposed Sample Locations

A total of nine surface water samples are proposed for this work plan (Figure 4). All surface water samples will be "grab" samples.

To determine if the Reedy River has been impacted by discharges from the MGP and Vaughn Landfill sites, two samples will be collected from the river at the locations sampled in the Phase II investigation. One sample will be collected where the river passes under Bramlette St. This sample will be considered as a background sample since surface and ground water flows from the MGP and Vaughn Landfill sites are believed to intersect the Reedy River downgradient from this location. A second Reedy River sample will be collected where the river passes under Willard St. This location is less than fifty yards downstream from where Ditch 5, which is the surface water outflow from the MGP and Vaughn sites, enters the Reedy River.

The end of Ditch 5 will be sampled at the location sampled in Phase II. An additional sample will be collected from Ditch 5 near the location of monitoring well MW-5 and the faunal study location.

Surface water samples will also be collected from Ditch 1 and Ditch 2 where each ditch passes under Bramlette Road. These samples will give an indication of the water quality for some of the water flowing into the wetlands area. It should be noted that additional surface water enters the wetlands area from the railroad right-of-way east of the wetlands and from industrial and residential properties along Washington St. east of the wetlands. Samples are not planned for these areas.

One surface water sample will be collected from the wetlands area east of the Vaughn Landfill, near Ditch 4 and former surface water sample WE002, one sample will be collected from the wetlands area west of the landfill near monitoring well MW-6 and former surface water sample WW002. An additional surface water sample will be collected from the area selected for the faunal study near the landfill.

### 3.3 Sample Collection and Analysis

Surface water samples will be collected by Duke Power Company, Scientific Services. In-situ analysis of surface water samples will be conducted using a Hydrolab® Water Quality Analyzer. Parameters measured will include temperature, pH, Specific Conductance and dissolved oxygen

Surface water samples will be analyzed by Duke Power Company, Laboratory Services, Huntersville, NC, SCDHEC certification # 99005.

Surface water samples will be analyzed for VOC following EPA Method 601/602 and for S-VOC following EPA Method 625.

Surface water samples will also be analyzed for the following total dissolved metals following appropriate EPA Methodology: Barium, Calcium, Iron, Potassium, Magnesium, Manganese, Sodium Tin, Zinc, Cadmium, Chromium, Copper, Nickel, Lead, Arsenic, Selenium and Mercury. Samples will also be analyzed for Chloride, Ammonia, Acidity, Alkalinity, Cyanide, Sulfate, Oil and Grease, Total Suspended Solids Total Dissolved Solids and Total Organic Carbon.

## 4.0 GROUNDWATER INVESTIGATION

The proposed groundwater investigation is designed to determine the vertical and horizontal extent of the groundwater contaminant plume and to determine the extent of free product coal tar.

### 4.1 Previous Investigations

Seven groundwater samples were collected for the Phase I investigation. All samples were collected from the Vaughn Landfill using either pits or temporary boreholes. Samples were analyzed for VOC, S-VOC, PCB and metals. Three sample locations (LF23A, LF25A and LF27A) detected VOC above state standards and two sample locations (LF23A and LF27A) detected S-VOC above recommended levels.

Seven shallow groundwater monitoring wells and one deep groundwater monitoring well were constructed for the Phase II investigation (Figure 5). One well (MW7) was located on the former MGP site. Four wells were located on the Vaughn Landfill, including one deep well. One well was located upgradient and east of the landfill and two wells were located west of the landfill between the Reedy River and the landfill. The wells were checked for free product and analyzed for VOC and S-VOC.

The deep monitoring well (MW3D) contained approximately three inches of free product tar. Three wells, one shallow (MW3) and the deep well on the landfill and the well at the MGP site, exceeded MCLs for VOC and five wells (all of the wells on the landfill and the well on the MGP site) exceeded the recommended concentrations for S-VOC.



## 4.2 Monitoring Well Locations

### 4.2.1 MGP Site

One shallow monitoring well currently exists at the MGP site. Sample analytical results exceeded state standards for VOC and recommended levels for S-VOC in that well. To determine the horizontal extent of contamination at the MGP site five new shallow monitoring wells are proposed (Figure 5). These wells are generally placed in each corner of the site plus one in the middle of the site near an area of heavily stained soil between the former retort house and purifier boxes. Existing monitoring well MW7 was placed near the former tar separators, the area most likely to have the highest contaminant concentrations and the potential for free product. The shallow monitoring wells will be screened to intersect the water table. See Section 4.3 for well construction details.

To determine if a dense non-aqueous phase liquid (DNAPL), which is the expected form of free product coal tar, exists at the MGP site, mid depth wells will be nested with each of the proposed shallow monitoring wells and the existing shallow well MW7. The mid depth wells will terminate at the stiff saprolite confining layer identified in MW3D or at the first significant confining layer. This is the location free product tar would be expected to accumulate. An additional deep well will be installed near MW7 which will terminate at the top of bedrock. This well will be used to determine if any DNAPL has migrated past the saprolite to the top of bedrock. This well will also help determine the vertical extent of contamination. See Section 4.3 for deep well construction details.

### 4.2.2 CSX/Vaughn Landfill Site

To further define the horizontal extent of dissolved contaminants at the water table three new shallow wells are proposed (Figure 5). There is potential that contaminants have migrated in a narrow band along Ditch 5. To help define the southern boundary of the

contaminant plume a well is proposed to be located adjacent to Ditch 5 about even with existing monitoring well MW5. Previous sampling results for MW5 indicated a trace of naphthalene (12 ppb) with all other contaminants of concern below the detection limit. Results of a previous soil sample (WW12) between the proposed well location and the toe of the landfill had no indication of contamination. A soil sample closer to the toe of the landfill (WW11) detected significant levels of S-VOC .

To help define the extent of the contaminant plume in the westerly direction a shallow monitoring well is proposed to be located approximately even with existing monitoring well MW6 but along the railroad embankment, west of the wetlands. This well will also provide water table elevation data which may help to determine the flow path between the wetland and the Reedy River.

To help determine the extent of the contaminant plume in the north-east quadrant of the Vaughn Landfill one monitoring well is proposed to be located on the Greenville County School District Property near Bramlette Rd.

A mid depth well will be nested with each new shallow monitoring well and with existing shallow wells MW1, MW5 and MW6. These wells will help define the extent of DNAPL. The mid depth wells will terminate at the top of the stiff saprolite layer which accumulated the DNAPL in MW3D or at the first significant confining layer. If the mid depth wells show that the free product is not wide spread, but limited to the area around MW3D, then additional mid depth wells will be installed in the immediate vicinity of MW3D to define the extent of free product in that area.

An additional deep well will be nested with existing monitoring wells MW3 and MW3D. The new deep well will terminate at the top of bedrock to explore the possibility of DNAPL migrating past the top of saprolite.

If the depth difference between the water table and the confining layer where the mid depth well would terminate is less than 13 feet, only one well will be installed at that location. The one well will be a combined well, instead of the proposed shallow and mid depth monitoring wells. The screened interval for the combined well will be from the top of saprolite to the water table.

#### 4.3 Well Construction

Monitoring wells will be constructed by a SCDHEC certified driller, Duke Power Company, Geotechnical Center, Seneca, SC.

Shallow monitoring wells will be constructed by boring with a hollow stem auger to a depth of approximately nine feet below the water table. A 10 foot long, two inch diameter PVC screen will be set to intersect the water table (Figure 6).

The mid depth wells will be constructed the same as the shallow wells except the boring will terminate at the top of the stiff saprolite and a five foot screen will be set at the bottom of the well (Figure 7). The combined well will be constructed similar to the mid depth well except a 15 foot screen will be used and will extend from the bottom of the well to the water table.

The deep wells will be constructed by boring with a hollow stem auger to the top of the confining layer. A PVC outer casing will be set and grouted in place. The boring will then continue through the outer casing to auger refusal. A five foot screen will be set at the bottom of the boring (Figure 8).

Based on the free product assessment in the new wells, additional wells may be required to more closely define the extent of free product in the vicinity of MW3D or other monitoring wells.

#### 4.4 Groundwater Sampling and Analysis

Groundwater samples will be collected using generally accepted groundwater sampling procedures (Appendix II) by Duke Power Company, Scientific Services. In-situ analysis will include pH, Specific Conductance, Temperature, Dissolved Oxygen and Redox Potential.

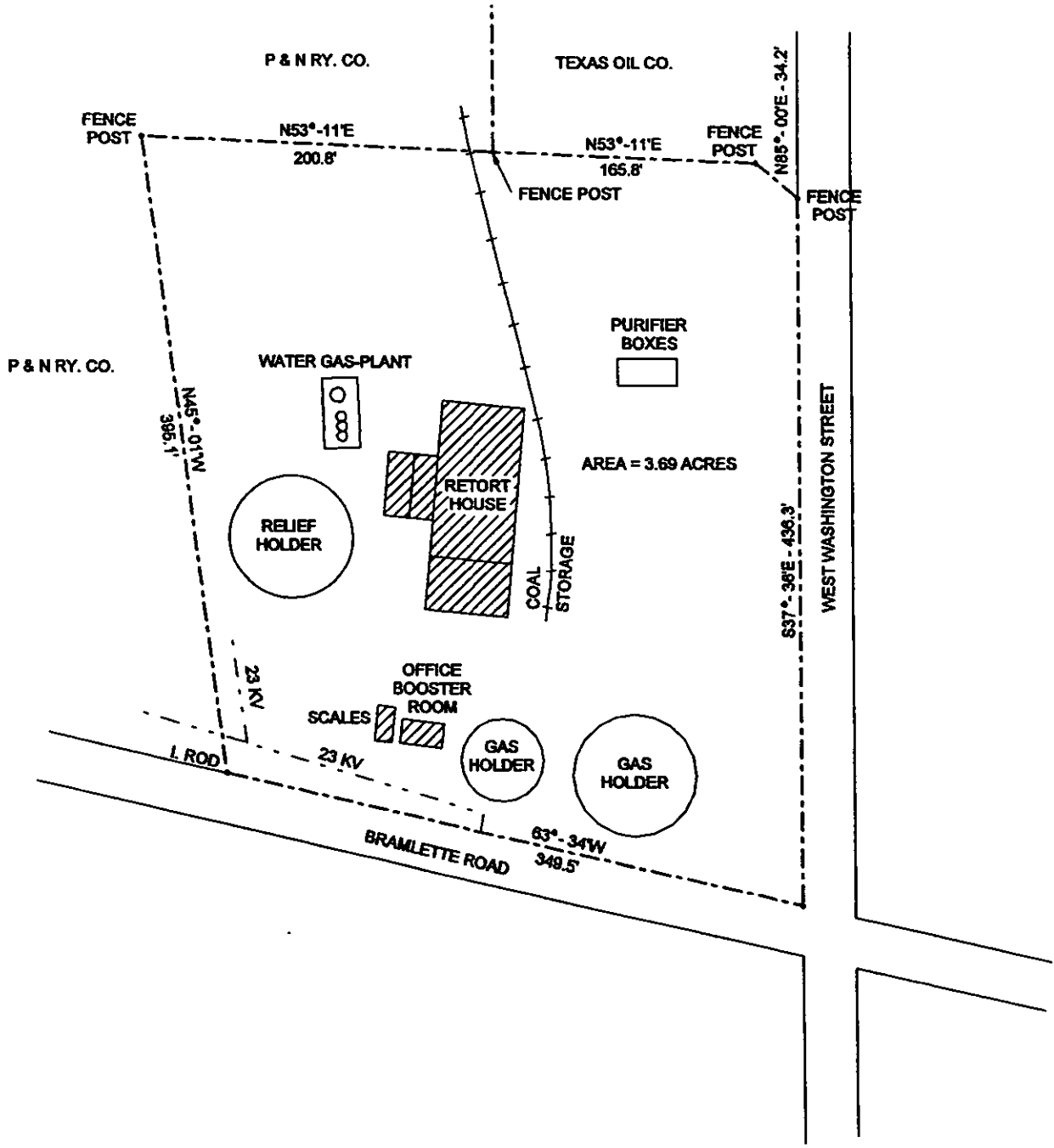
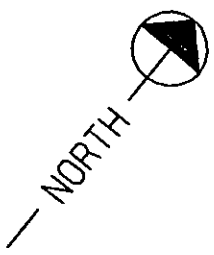
Groundwater samples will be analyzed by Duke Power Company, Laboratory Services, Huntersville, NC, SCDHEC certification # 99005.

Samples will be analyzed for VOC following EPA Method 601/602 and for S-VOC following EPA Method 625. Samples will also be analyzed for the following total dissolved metals following appropriate EPA Methodology: Barium, Calcium, Iron, Potassium, Magnesium, Manganese, Sodium Tin, Zinc, Cadmium, Chromium, Copper, Nickel, Lead, Arsenic, Selenium and Mercury. Samples will also be analyzed for Chloride, Ammonia, Acidity, Alkalinity, Sulfate, Total Dissolved Solids and Total Organic Carbon.

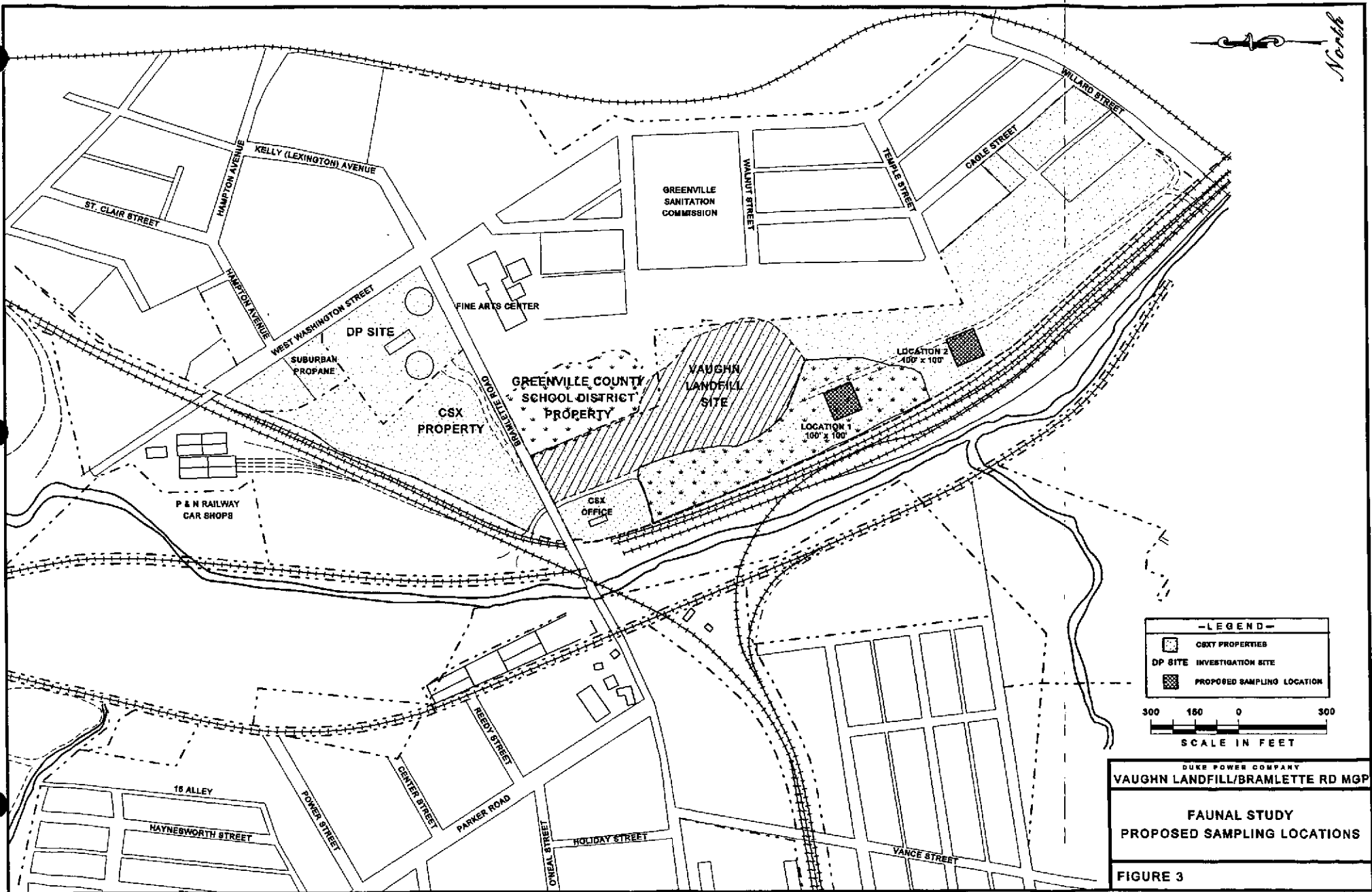
#### 5.0 SOIL SAMPLING

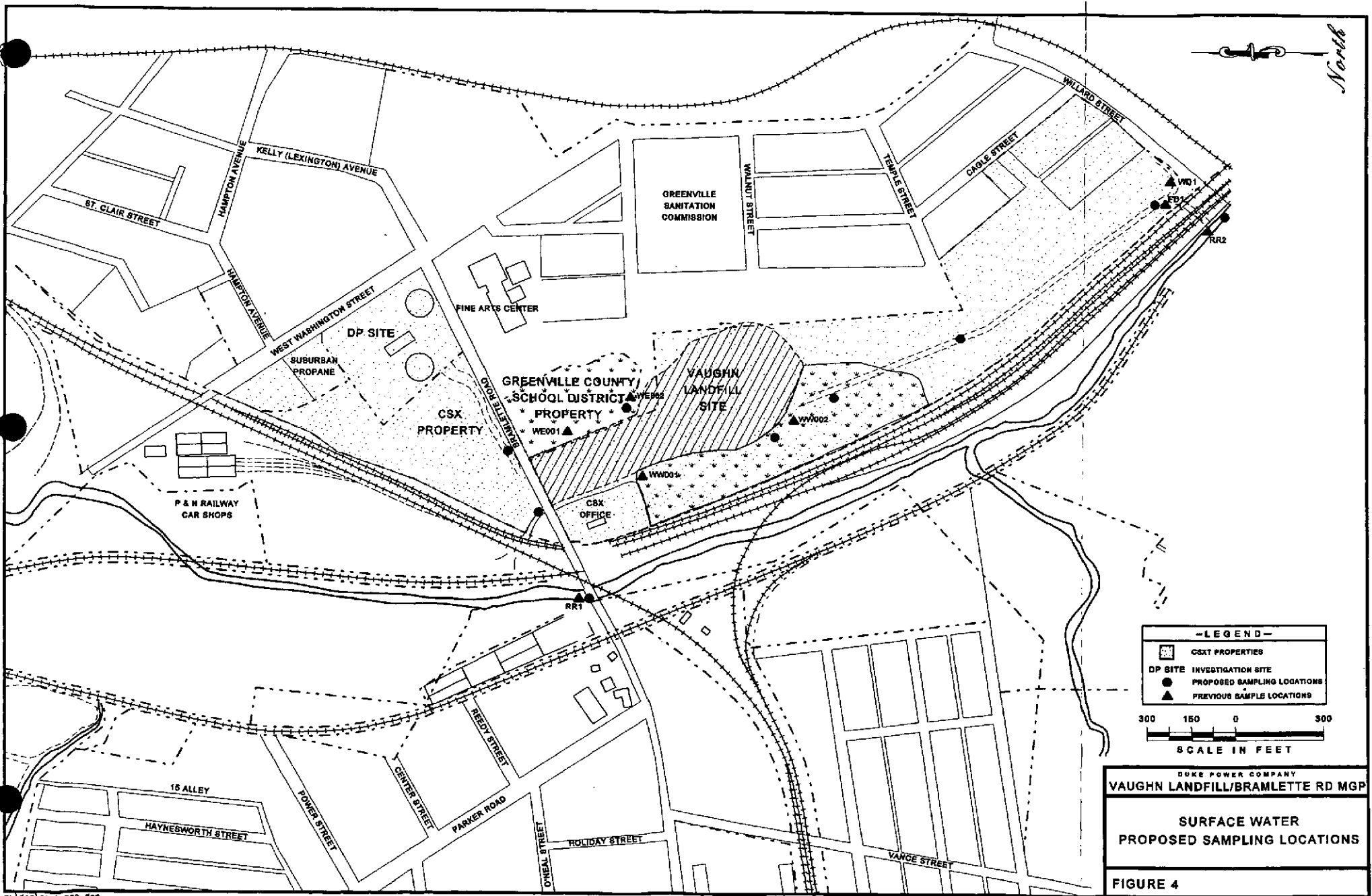
Soil samples will be collected from the auger borings for all new mid depth, combined and deep monitoring wells. Samples will be collected at continuous depths using a split-barrel sample spoon. Soil samples will be classified in the field using the Unified Soil Classification System, and verified by a S.C. registered geologist.

Based on field inspection approximately three samples from each boring will be selected for field screening. One sample per boring will be selected for laboratory analysis for VOC, S-VOC, cyanide and metals.



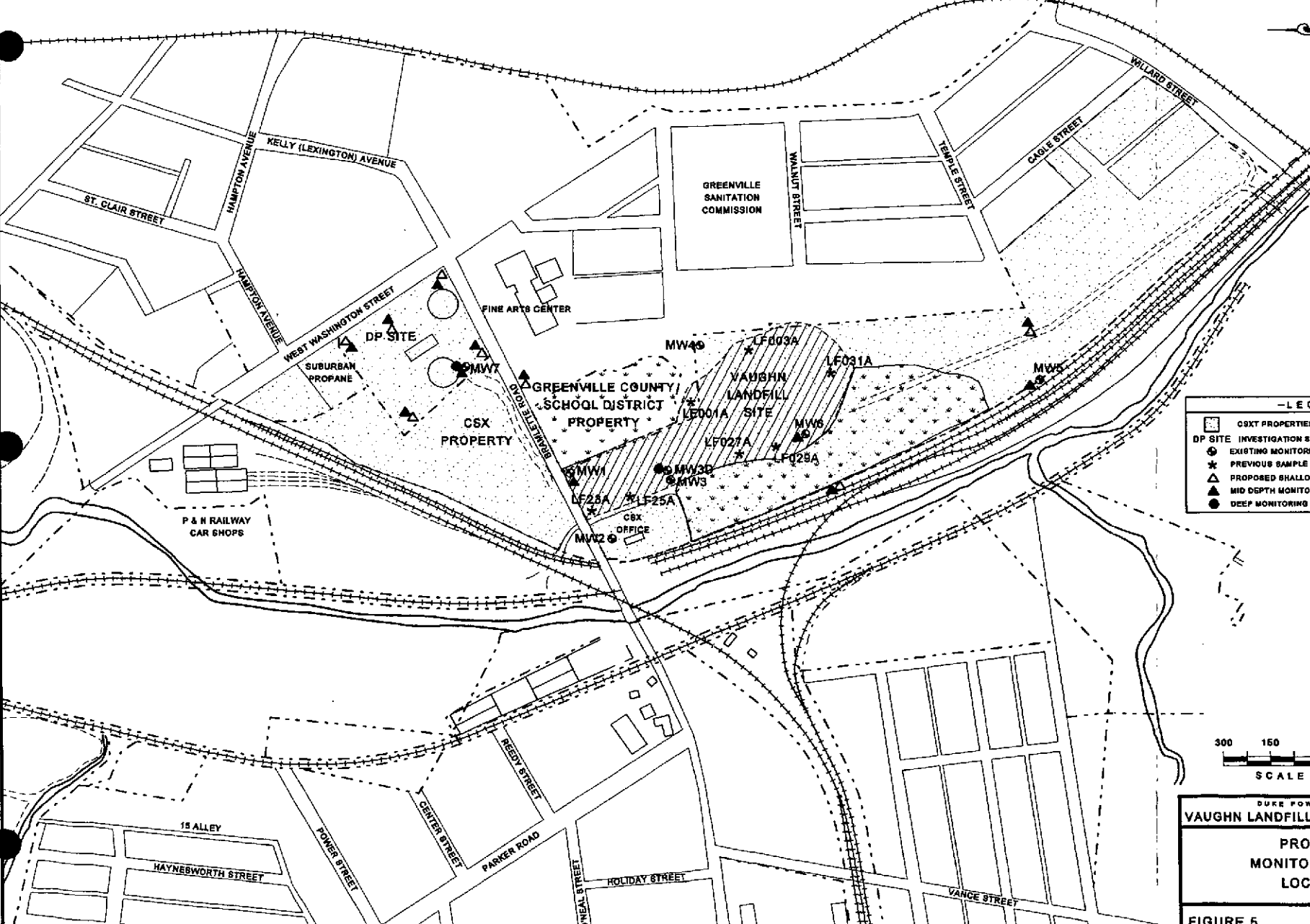
DUKE POWER COMPANY
HISTORIC SITE PLAN BRAMLETTE ST. MGP GREENVILLE, S.C.
FIGURE 2





DUKE POWER COMPANY  
**VAUGHN LANDFILL/BRAMLETTE RD MGP**  
 SURFACE WATER  
 PROPOSED SAMPLING LOCATIONS  
**FIGURE 4**

North



-LEGEND-

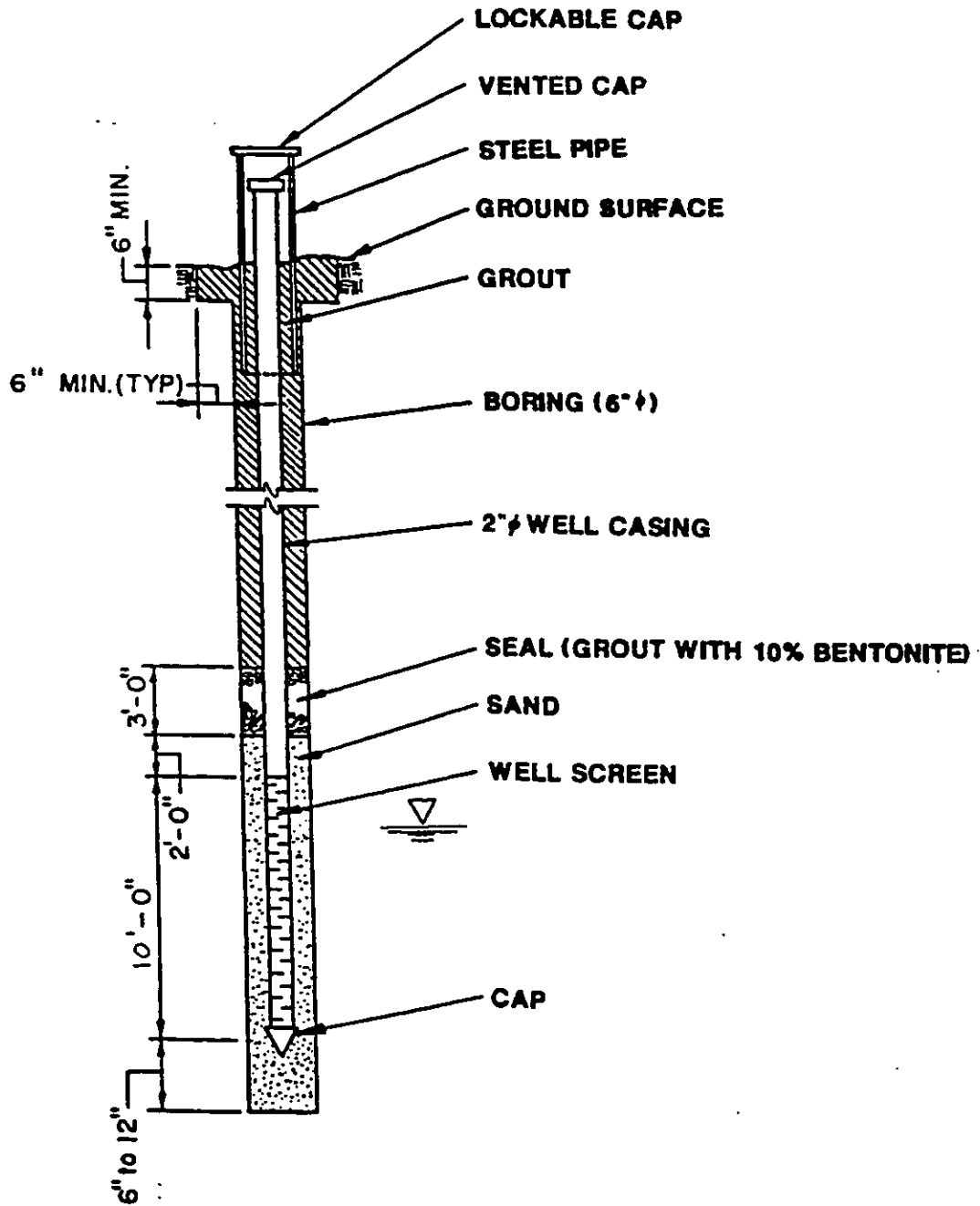
	CSXT PROPERTIES
	DP SITE INVESTIGATION SITE
	EXISTING MONITORING WELLS
	PREVIOUS SAMPLE POINTS
	PROPOSED SHALLOW MONITORING WELL LOCATIONS
	MID DEPTH MONITORING WELL LOCATIONS
	DEEP MONITORING WELL LOCATIONS



DUKE POWER COMPANY  
**VAUGHN LANDFILL/BRAMLETTE RD MGP**  
**PROPOSED**  
**MONITORING WELL**  
**LOCATIONS**

FIGURE 5



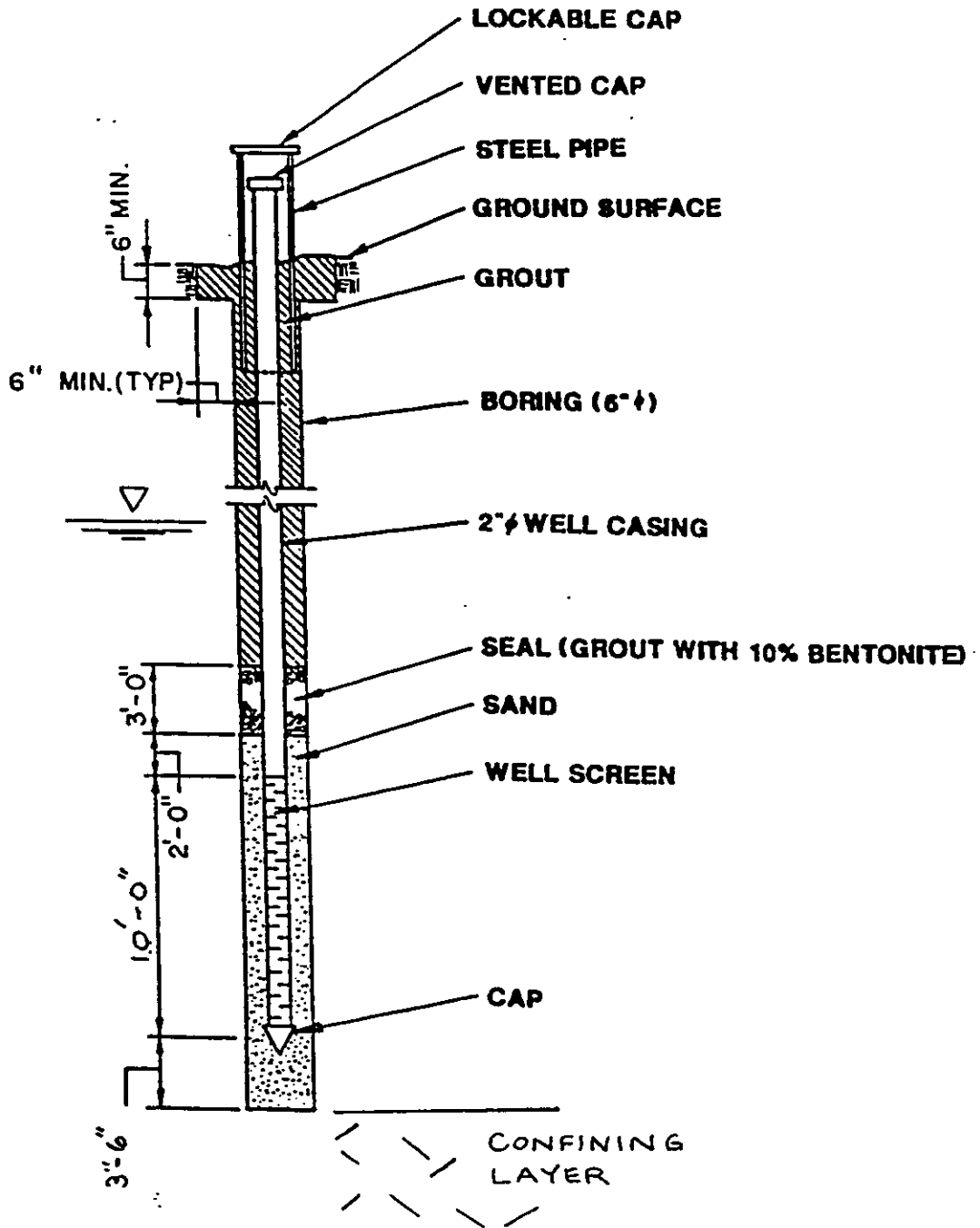


- NOTES:**
1. ALL DIMENSIONS ARE APPROXIMATE.
  2. ALL CASING MATERIAL SHALL BE SCH 40 PVC.
  3. WELL SCREEN MATERIAL SHALL BE SCH 40 PVC.

FIGURE 6

DUKE POWER CO.

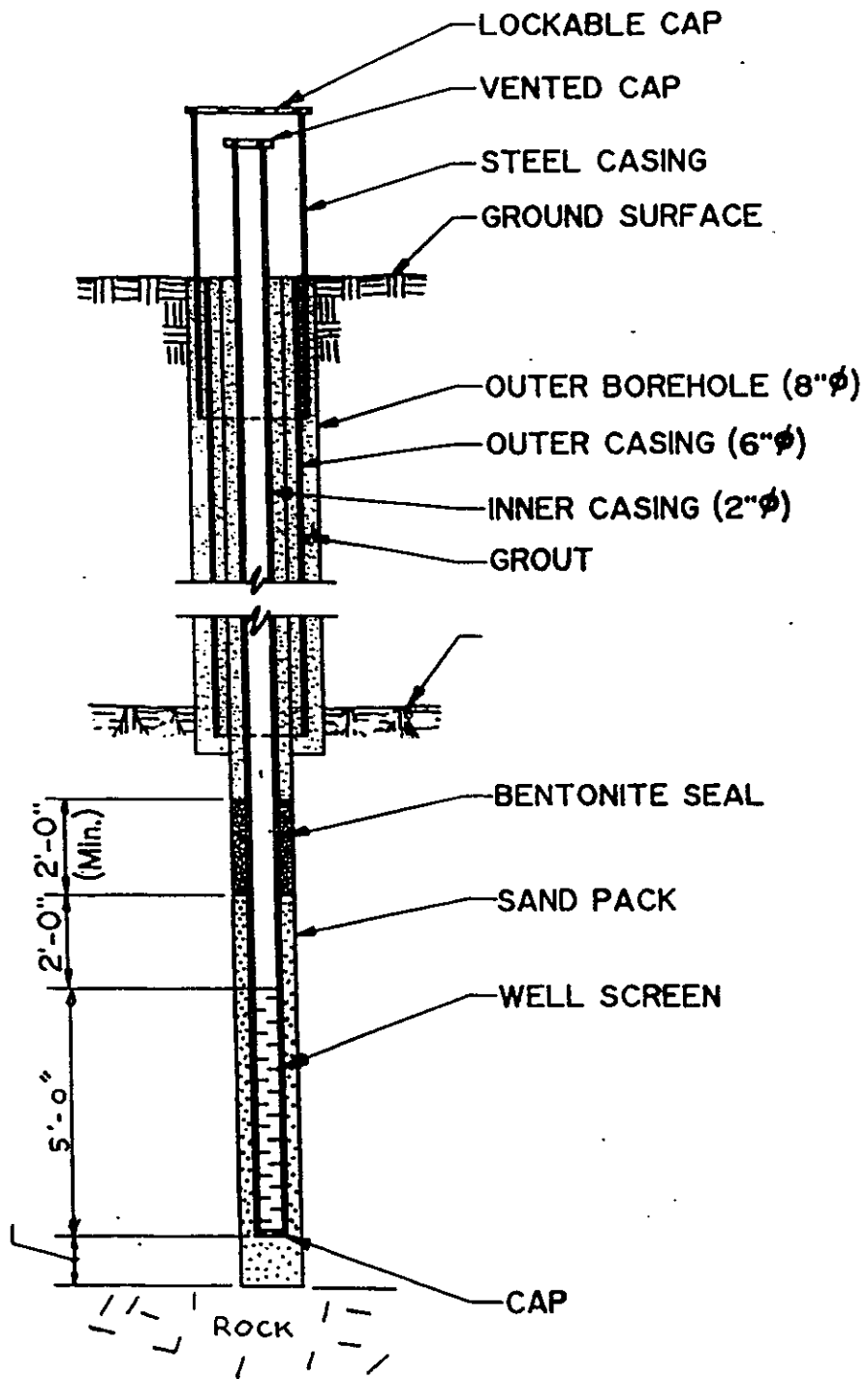
SHALLOW WELL  
CONSTRUCTION DETAILS



- NOTES:**
1. ALL DIMENSIONS ARE APPROXIMATE.
  2. ALL CASING MATERIAL SHALL BE SCH 40 PVC.
  3. WELL SCREEN MATERIAL SHALL BE SCH 40 PVC.

**FIGURE 7**

<b>DUKE POWER CO.</b>
<b>MID DEPTH WELL CONSTRUCTION DETAILS</b>



**NOTES:**

1. ALL CASING JOINTS HAVE SCREW CONNECTORS.
2. ALL CASING MATERIAL SHALL BE SCH 40 PVC.
3. WELL SCREEN MATERIAL SHALL BE SCH 40 PVC.

FIGURE 8

DUKE POWER CO.

DEEP WELL  
CONSTRUCTION DETAILS

APPENDIX I  
SCDHEC LETTER

*Charles Cabrera*

P.2 *SHW*



**M E M O R A N D U M**

**To:** Charles Bristow, Hydrogeologist  
 Appalachia II District EQC

**From:** Tom Knight, PG, Manager *(PK)*  
 Geohydrologic Section  
 Water Monitoring, Assessment and Protection Division

**Date:** December 6, 1996

**Re:** CSX Transportation-Bramlette Road Site  
 Assessment Report (9/3/96)  
 Greenville County

**RECEIVED**  
 DEC 11 1996  
 EQC GREENVILLE

I have reviewed the referenced report and offer the following comments:

- The recommendations are acceptable and should be implemented.
- A meeting should be scheduled to discuss the next phase of investigation with both Duke Power and CSX if both parties are agreeable.
- I agree that the current status of the water supply well at the former Coal Gasification plant should be determined soon.
- The free phase coal tar (DNAPL) at well MW-3B is noted. Some process to remove the product as it collects in this well should be devised.
- The vertical extent of the contaminant plume needs to be determined. The product at MW-3B is at a location distal to the gasification plant. Areas where the coal tar may have settled should be evaluated.
- It is not anticipated that the saprolite is impermeable at the site. The DNAPL at well MW-3B is probably moving along the interface between alluvial sediments and saprolite due to a permeability difference at that location. The top of bedrock and the transition zone also should be investigated.
- I recommend that the next sampling event include the parameters dissolved iron and manganese. Apparently strong reducing conditions or direct reduction of the metals are being developed by the degradation of the hydrocarbons (I noticed heavy iron bacteria throughout the wetlands area). Potential toxic effects of these metals on aquatic toxicity should be evaluated.

Bristow-CSXT Memo.

December 6, 1996

Page Two

- Free product should be remediated as this will remain an ongoing source for dissolved constituents in groundwater.

- Prioritization of activities should include an evaluation of the relative risks from the various exposure pathways with the most likely pathways to be targeted for corrective action to remove the risk first. Additional considerations include long term impact to the environment and to groundwater quality, plus the discharges to the Reedy River, the stream and the wetlands.

- Corrective action will be necessary at this site due to ongoing discharges to the wetlands, DNAPL present in the groundwater, and concentrations of contaminants including known and/or probable human carcinogens in surficial soils.

- Although the plant survey is helpful in establishing the potential impact to the plant community, the potential impact upon the fauna needs to be evaluated as well (especially aquatic toxicity effects-hydrocarbons have been noticed in the stream in various places to its confluence with the Reedy River).

- The source of the sulfate in well MW-3 should be evaluated as this concentration is above the proposed MCL for this compound.

- Please note that the maximum concentration allowable in groundwater for the 15 National Toxicity Program designated polynuclear aromatic hydrocarbons (PAH, i.e. probable human carcinogens) is 2 ug/l (list attached). Non-differentiated PAH maximum concentrations are established at 2 ug/l and all other PAH maximum allowable concentrations in groundwater are established at 25 ug/l. These levels are based upon available data for the protection of human health as advised by the Department's toxicologist, Dr. John Brown.

- Please include field specific conductance and field pH data in the data summary table in future reports.

- Several compounds are present in the groundwater above or near 10 percent of their respective solubility limits in wells MW-1, 3, 6, 7, and in boring LF-023A. This strongly suggests that free phase coal tar is present in the immediate vicinity of each of these locations.

If you have any questions, please contact me at (803) 734-5227.

TK

enc: Designated PAH's

cc: Doug Johns  
Quinton Epps

DESIGNATED PAH's

Benz [a] anthracene  
Benzo [b] fluoranthene  
Benzo [j] fluoranthene  
Benzo [k] fluoranthene  
Benzo [a] pyrene  
Dibenzo [a, h] acridine  
Dibenzo [a, j] acridine  
Dibenz [a, h] anthracene  
Dibenzo [c, g] carbazole  
Dibenzo [a, e] pyrene  
Dibenzo [a, h] pyrene  
Dibenzo [a, i] pyrene  
Dibenzo [a, l] pyrene  
Ideno [1, 2, 3-cd] pyrene  
5-Methylchrysene

12/5/96

TK

**APPENDIX II**  
**GROUND WATER SAMPLING PROCEDURE**



**PROCEDURE 3500: GROUND WATER INVESTIGATION  
GROUND WATER MONITORING, SAMPLE COLLECTION  
AND AQUIFER INVESTIGATIONS  
AT DUKE POWER COMPANY LOCATIONS**

**Prepared  
August 26, 1996**

## INTRODUCTION

Duke power has numerous locations throughout the system that require ground water monitoring on a routine and non-routine basis. The ground water monitoring activities can be segmented into three distinct categories. These categories include underground storage tank (UST) monitoring, non-underground storage tank (NUST) monitoring and long-term monitoring.

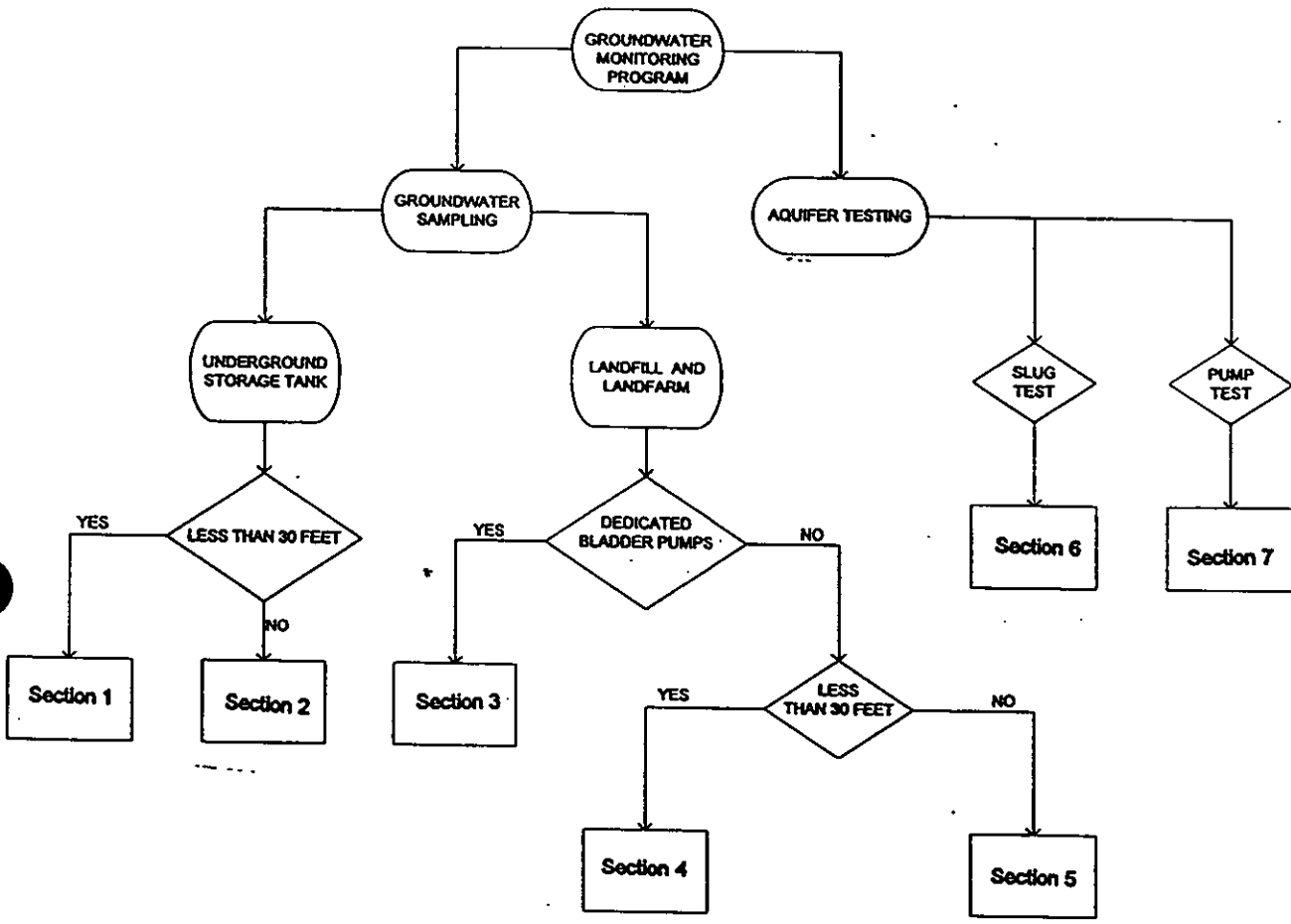
Underground storage tank monitoring includes all locations where known leaks of these tanks have been documented and they are currently regulated by a State UST program. These monitoring programs target organic contaminants related to gasoline and fuel oil found at transportation facilities and fuel storage facilities at fossil generating stations.

The NUST monitoring includes all ground water monitoring not related to UST's or have dedicated sampling systems installed. These programs center around the abandoned manufactured gas plants located throughout the system. In general, these programs target organic compounds associated with coal tars, however other chemicals such cyanide, phenols, and trace metals are also important constituents monitored at these sites.

The long-term monitoring programs are programs where dedicated sampling systems have been installed. These systems are found at industrial waste landfills, dry ash landfills, asbestos landfills and land farms located at nuclear and fossil generating facilities.

The purpose for this procedure is to bring a consistent method for conducting the field aspects related to ground water monitoring and assessment. As such the guideline contains 7 sections. Each section details the sampling procedure for each type of program explained above. This procedure is a revision of the Geraghty and Miller Sampling and Analysis Plan prepared in September, 1990. The procedure is an improvement in the G&M Plan in that it addresses the specific sampling requirements for different ground water monitoring programs and at the same time allows flexibility in the way these programs are implemented. In addition, this procedure in principal follows the latest protocols outlined in US EPA, Region IV, *Environmental Investigations, Standard Operating Procedures and Quality Assurance Manual*, May, 1996.

PROCEDURE 3500  
GROUND WATER SAMPLING  
PROCEDURE FLOW CHART



## SECTION 1

### GUIDELINES FOR SAMPLING GROUNDWATER (UST SITES)

#### MONITORING WELLS LESS THAN 30 FEET DEEP

##### 1.0 EQUIPMENT PREPARATION / STAGING

- Stage the equipment using a site specific checklist, if available, like the one shown at the end of this section.
- To the extent possible, pre-label sample bottles, field data sheets, and custody sheets prior to leaving the lab.
- On the day of sampling, prior to leaving the lab, collect fresh milli-Q water into a plastic carboy. Ensure the carboy is thoroughly rinsed with the milli-Q water. This water will be used to collect field blank samples while in the field.
- If applicable, collect samples for the trip blank directly from the milli-Q source prior to going into the field, label accordingly, and carry the sample with you into the field. Do not open this sample while in the field.
- Samples for trip blanks should include analyses for volatiles (small 40 ml vial).

##### 2.0 SITE PREPARATION

- Organize the sampling equipment, sample bottles, etc. and prepare a "work station" for measuring the indicator parameters.
- Calibrate the Hydrolab water quality analyzer according to the Standard Operating Procedure (SOP) 3220 and document the calibration data on a form similar to the one shown at the end of this section.
- Locate the well locations and decide on a sampling sequence. Groundwater monitoring wells should be sampled from the least contaminated to the most contaminated and from the upper aquifer (shallow wells) to the deeper aquifer (deep wells).
- Unlock each well and measure the volatile organics concentration using the photoionization detector (PID) according to the SOP 3310.
- If the PID registers a reading of greater than 10 pmm, measure for free-product.
- Measure the depth to water using the water level meter SOP 3100. If unknown, measure the total depth of well. Perform the necessary calculations as shown on the attached Groundwater Monitoring Data Sheet to determine the well volume needed for purging.

### 3.0 PURGING

*NOTE: If this site has been sampled previously, dedicated tubing should be available. For the sake of discussion, it is assumed this is a new site and new tubing will be needed.*

- Put on a clean pair of gloves.
- Place new teflon tubing into the well ensuring that you have reached the bottom. Allow an additional 3 to 5 feet of tubing to extend from the well.
- Cut a 3 to 5 foot section of Tygon tubing and attach the two pieces of tubing together.
- Place the Tygon tubing into the roller head of the peristaltic pump.
- Place the tubing discharge end into a purge container, turn the pump on and adjust the flowrate of the pump to maximum. Continue to pump until one complete well volume has been removed or the well has been evacuated.
- Collect a sample of groundwater into a 500 ml container and immediately measure the pH, temperature, and specific conductivity of the sample by pouring part of the sample into the Hydrolab calibration cup, cover using the soft rubber cap, and rinse the probes thoroughly. Discard the rinse water.
- Fill the cup to the top, and cover the open end and allow the readings to stabilize.
- Once the readings have stabilized, record the values on a field sheet as shown on the attached Groundwater Monitoring Data Sheet.
- Continue to remove one well volume, collect a sample, and measure for pH, temperature, and specific conductivity until the pH has stabilized within 0.20+/- units and temperature and specific conductivity are within  $\pm 10\%$  over three consecutive well volumes.
- If the well becomes evacuated to dryness during the course of purging, it is considered that true groundwater is now entering the well during recharge and sampling can begin.
- Once the indicator parameters have stabilized or the well is completely evacuated, sampling may begin.

### 4.0 SAMPLING

- Allow the well to recharge to ensure adequate volume is available for the collection of samples. If the well has not sufficiently recharged within 8 hours to collect samples, suspend sampling and notify the project scientist.
- Locate all the sample bottles for the well and place initials of the sample collector, and the time of sample collection onto the label. Fill out the custody sheet as shown on the attached example.
- Place a fresh pair of clean gloves on.
- Collect samples in order of their volatility:

- Volatile Organics
  - pH, specific conductance
  - Semi-volatile organics
  - Metals
- Decrease the flowrate of the pump to less than 100 ml per minute to minimize the turbidity of the sample and the potential for volatilization of the sample. Fill up the sample bottles according to the study specifications and preserve each sample accordingly (acidification, ice, etc.).
  - Slowly fill the 40 ml vial for the volatile analyses. These vials are pre-acidified, therefore, do not overfill but form an inverted meniscus. Place the cap over the top of the meniscus and screw on tightly.
  - Invert the bottle and gently tap the sides of the vial and inspect for air bubbles. If air bubbles are present, uncap and try again.
  - A total of 3 samples (or three 40 ml vials) per each well location is normally required for volatile samples.
  - Fill the brown sample jugs for semi-volatiles. The flowrate can be adjusted to a higher rate for these analyses.
  - Once all samples have been collected, turn the pump off. Wearing clean gloves, remove the tubing from the pump and well by winding it up into a tight circle. Place the tubing into a plastic bag and label the bag specific to the well and site for future use. Replace the well cap and lock the well.
  - Perform the purging and sampling sequence for each well until all wells have been sampled.

## 5.0 FIELD BLANKS

- Collect all field blanks by sampling directly from the plastic carboy containing the milli-Q water. Complete the labeling requirements for the sample and custody sheet.

## 6.0 POST SAMPLING

- Perform the post calibration of the Hydrolab water quality analyzer according to the SOP 3220.
- Ensure that all samples have been properly labeled and are preserved according to the analyte.
- Ensure the custody sheet has been accurately completed.
- Place a custody seal over all coolers not directly delivered to the laboratory by the sampling team.
- Review all field sheets and calibration sheets for accuracy and completeness.
- Ensure that all wells have been locked and complete a final site inspection and fill out a Site Checklist like the attached example.
- Ensure that all data is filed accordingly upon return to the laboratory.

SITE: TODDVILLE GARAGE UST

WELL LOCATIONS: 28 - MW1, MW2, MW3, MW4, MW5, MW6, MW7, MW8, MW9, MW10, MW11, MW12, MW13, MW14, MW15, MW16, MW17, MW18, MW19, MW20, MW21, MW22, MW23, MW24, MW25, MW26, MW27, MW28

TRIP BLANK: 2 (625 and VOC)

FIELD BLANK: 2 (625 and VOC)

QC SAMPLE: 1 (625)

*1. preservation steps for pre-acidified vials*

# OF LABEL	# OF BOT	BOTTLE VOL (ml)	BOTTLE TYPE	ANALYSES	PRESERVATION
0	30	300	Clear BOD	VOC <i>without</i>	Place on ice, then acidify with 5 ml of HCl. <i>50%</i>
90	90	40	Small brown vial	VOC <i>without</i>	Pour the HCl acidified sample from the BOD bottle and place on ice.
0	30	300	Clear BOD	VOC (504.1)	Place on ice, then acidify with 5 ml of HCl. <i>50%</i>
90	90	40	Small brown vial	VOC (504.1)	Pour the HCl acidified sample from the BOD bottle and place on ice.
31	31	2500, <i>1000</i>	Brown jug	625	Place on ice.
29	29	500	Clear plastic	Lead	Acidify with 5 ml of HNO3.

- 2 Hydrolab H20
- 1 Gell cell and connector for Hydrolab
- 2 pH buffers (7.00, 4.00)
- 2 Conductivity standard (match previous data)
- 3 500 ml bottles for Hydrolab GW readings
- 2 Digital thermometer
- 2 Calculator
- 3 Powderless gloves
- Data / Calibration forms
- Custody forms
- Copy of previous data
- Milli-Q water
- 30 50% HNO3 vials
- 60 50% HCl vials
- 40 Tags for 625 samples
- 4 Water level meter
- 2 Product Interface meter
- 1 box 1.5 inch bailer
- 1 PID probe

- 6 Small cooler
- 5 Large cooler
- 24 Ice
- 6 Evacuation container
- Pocket knife / scissor
- Hard hat
- Safety glasses
- Plastic bag
- Rain gear
- 1 Tool box
- 1 Gas can
- 3 Generator
- 4 Peristaltic pump
- 28 Dedicated tubing
- 2 box Peristaltic pump tubing
- 2 box PVC tubing
- 2 String

- > COLLECT THE MILLI-Q WATER
- > COLLECT AND TIME THE TRIP BLANKS
- > GET THE HYDROLAB READOUT UNIT
- > GET ICE

*50%*

# DUKE POWER COMPANY GROUNDWATER MONITORING DATA SHEET

LOCATION:	TODDVILLE		
PROJECT TITLE:	UST		
SAMPLING DATE:	10-Jan-96	FIELD CREW:	LDC, GLF

MONITORING WELL NUMBER: <span style="border: 1px solid black; padding: 2px;">MW1</span>	WATER LEVEL METER #: <span style="border: 1px solid black; padding: 2px;">INVEST</span>
	TIME SAMPLE COLLECTED: <span style="border: 1px solid black; padding: 2px;">1400</span>

### WELL VOLUME CALCULATION

WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	-	WATER LEVEL (FEET)	=	WATER COLUMN (FEET)	X	3.14 x r <sup>2</sup>	=	VOLUME (FT <sup>3</sup> )
2"	24.65	-	8.92	=	15.73	X	0.0218	=	0.3429
4"	N/A	-	N/A	=	N/A	X	0.0873	=	N/A

LITERS PER WELL VOLUME REMOVED:

WELL VOLUME	LITERS TO REMOVE: (FT <sup>3</sup> x 28.32 LFT <sup>3</sup> )	
	2" WELL	4" WELL
1	9.71	N/A
5		
10		
20		

OBSERVATIONS:

ODORS DETECTED:		FREE PRODUCT MEASUREMENT:	
TYPE:	FUEL	METHOD:	INVESTIGATOR
STRONG:		THICKNESS:	0.01 ft
MINOR:	✓	OTHER:	
NONE:		PRODUCT LEVEL (ft):	8.91

PID Reading = 15.4 ppm

WATER LEVEL (FEET)	METHOD (P=PUMP, B=BAIL)	VOLUME (LITERS)	EVACUATED VOLUME (LITERS)		pH (units)	TEMP (deg C)	SPECIFIC CONDUCT. (umho/cm)		COMPLETE EVACUATION (Y/N)
8.92	P	10	10		5.82	14.8	481		N
N/A	P	10	20		5.63	13.2	539		N
	P	10	30		5.61	13.0	580		N
	P	10	40		5.64	12.9	569		N
				SAMPLING					

COMMENTS: WATER LEVEL AND WELL DEPTH REFERENCED TO TOP OF PVC WELL CASING.

above ground well in good shape



DUKE UNIVERSITY  
 Laboratory Services  
 MNS Bldg. # 7405 (MG03A1)  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078

# AND ANALYSIS REQUEST FORM \*

LS CLIENT CONTACT/PHONE: T. Whisenant / 5204  
 CLIENT: TODDVILLE  
 Project Name: UST  
 Results to/Phone: R. SANTINI / 5229  
 Address and/or PROFS: \_\_\_\_\_  
 Matrix (type of samples)/QC Level: GROUNDWATER  
 SAM No.: XXXXXXXX

ANALYSES REQUESTED by bottle type—MUST NOTE PRESERVATIVE\*\*  
 (may note special DL or Method)\*\*

FRAC	CHEMPLOT Number	Sample Description or ID <sup>10</sup>	Collected using sampling instructions <sup>11</sup>			EPA 625 (plus 10 highest TIC's)	EPA 602 (xylenes, MTBE, isopropyl ether, EDB)											
			Date	Time	Name													
		MW1	1/16/96	1400	LDC	1												
		FIELD BLANK		1415	LDC	1												
		TRIP BLANK		1130	LDC	1												
		QC - MW1		1405	LDC	1												
Sample Preserved <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>11</sup>			Total # of samples <sup>12</sup> :			4	9											
Name: <u>L.D. Cahill</u>		Delivered by <sup>13</sup> :		Delivered by:		Turnaround Requested <sup>14</sup> :												
Date/Time:		Date/Time:		Date/Time:		<input checked="" type="checkbox"/> Routine (3 weeks)												
Received by:		Received by:		Received by:		<input type="checkbox"/> Rush (2 weeks)												
						<input type="checkbox"/> Emergency Rush												
						<input type="checkbox"/> Date Results Requested												

Comments<sup>17</sup>: \_\_\_\_\_

\* See instructions on back of form.  
 \*\* White, canary — LS Files Pink — Client Copy

## GUIDELINE TO OPERATION OF A PERISTALTIC PUMP

### Equipment

Pump  
Pump head  
Special tygon tubing  
PVC tubing for well  
Generator

### Method

- \* Connect pump to generator
- \* Connect special tygon tubing to well tubing - placing intake end into well
- \* Open pump head
- \* Insert special tygon tubing into pump head
- \* Close pump head
- \* Determine flow direction through pump head
- \* Start generator
- \* Set flow rate (usually maximum for purging)
- \* Set flow toggle switch in appropriate setting (forward or reverse)
- \* To stop flow, set toggle switch in center position

## SECTION 2

### GUIDELINES FOR SAMPLING GROUNDWATER (UST SITES)

#### MONITORING WELLS 30 FEET DEEP AND GREATER

##### 1.0 EQUIPMENT PREPARATION / STAGING

- Stage the equipment using a site specific checklist, if available, like the one shown.
- To the extent possible, pre-label sample bottles, field data sheets, and custody sheets prior to leaving the lab.
- On the day of sampling, prior to leaving the lab, collect fresh milli-Q water into a plastic carboy. Ensure the carboy is thoroughly rinsed with the milli-Q water. This water will be used to collect field blank samples while in the field.
- Collect samples for the trip blank directly from the milli-Q source prior to going into the field, label accordingly, and carry the sample with you into the field. Do not open this sample while in the field.
- Samples for trip blanks should include analyses for semi-volatiles (large brown jug) and volatiles (small 40 ml vial).

##### 2.0 SITE PREPARATION

- Organize the sampling equipment, sample bottles, etc. and prepare a "work station" for measuring the indicator parameters.
- Calibrate the Hydrolab water quality analyzer according to the SOP3220 and document the calibration data on a form similar to the one shown.
- Locate the well locations and decide on a sampling sequence. Groundwater monitoring wells should be sampled from the least contaminated to the most contaminated and from the upper aquifer (shallow wells) to the deeper aquifer (deep wells).
- Unlock each well and measure the volatile organics concentration using the photoionization detector (PID) according to the SOP 3310.
- If the PID registers a reading of greater than 10 ppm, measure for free-product.
- Measure the depth to water using the water level meter SOP 3100. If unknown, measure the total depth of well. Perform the necessary calculations as shown on the attached Groundwater Monitoring Data Sheet to determine the well volume needed for purging.

### 3.0 PURGING

- Put on a clean pair of gloves.
- Remove a bailer from the protective wrapping and secure a string through the bailer top.
  - *NOTE: The Grundfos Redi-Flo 2 submersible pump can be used as an alternative to the bailer.*
- Lower the bailer into the well, allowing enough string to equal the well depth plus three feet. Cut the string, tie a loop on the end and place the loop over your hand.
- Remove the filled bailer by winding or looping the bailer string ensuring that no contact with any surfaces is made. Discard the groundwater into a purge container. Continue to "bail the well" until one complete well volume has been removed.
- Collect a sample of groundwater into a 500 ml container and immediately measure the pH, temperature, and specific conductivity of the sample.
- Pour part of the sample into the Hydrolab calibration cup, cover using the soft rubber cap, and rinse the probes thoroughly. Discard the rinse water.
- Fill the cup to the top, and cover the open end and allow the readings to stabilize.
- Once the readings have stabilized, record the values on a field sheet as shown on the attached Groundwater Monitoring Data Sheet.
- Continue to remove one well volume, collect a sample, and measure for pH, temperature, and specific conductivity until the pH has stabilized within 0.20+/- units and temperature and specific conductivity are within  $\pm 10\%$  over three consecutive well volumes.
- If the well becomes evacuated to dryness during the course of purging, it is considered that true groundwater is now entering the well during recharge and sampling can begin.
- Once the indicator parameters have stabilized or the well is completely evacuated, sampling may begin.

### 4.0 SAMPLING

- Allow the well to recharge to ensure adequate volume is available for the collection of samples.
- Locate all the sample bottles for the well and place the initials of the sample collector, and the time of sample collection onto the label. Fill out the custody sheet as shown on the attached example.
- Place a fresh pair of clean gloves on.
- Gently lower the bailer down the well to minimize the turbidity and potential for volatilization of the sample. Fill up the sample bottles according to the study specifications and preserve each sample accordingly (acidification, ice, etc.).

- Gently displace the ball valve located near the bailer bottom and slowly fill the 40ml vial for the volatile analyses. These vials are pre-acidified, therefore, do not overfill but form an inverted meniscus. Place the cap over the top of the meniscus and screw on tightly.
- Invert the bottle and gently tap the sides of the vial and inspect for air bubbles. If air bubbles are present, uncap and try again.
- A total of 3 samples (or three 40 ml vials) per each well location is normally required for volatile samples.
- Fill the brown sample jugs for semi-volatiles.
- Once all samples have been collected, discard the bailer. Replace the well cap and lock the well.
- Perform the purging and sampling sequence for each well until all wells have been sampled.

## **5.0 FIELD BLANKS**

- Collect all field blanks by sampling directly from the plastic carboy containing the milli-Q water. Complete the labeling requirements for the sample and custody sheet.

## **6.0 POST SAMPLING**

- Perform the post calibration of the Hydrolab water quality analyzer according to the SOP 3220.
- Ensure that all samples have been properly labeled and are preserved according to the analyte.
- Ensure the custody sheet has been properly filled out.
- Place a custody seal over all coolers not directly delivered to the laboratory by the sampling team.
- Review all field sheets and calibration sheets for accuracy and completeness. Ensure that all data is filed accordingly upon return to the laboratory.
- Ensure that all wells have been locked and complete a final site inspection and fill out a Site Checklist like the attached example.

# GROUNDWATER SAMPLING CHECKLIST

REVISED 3/19/90

SITE: TODDVILLE GARAGE UST

WELL LOCATIONS: 28 - MW1, MW2, MW3, MW4, MW5, MW6, MW7, MW8, MW9, MW10, MW11, MW12, MW13, MW14, MW15, MW16, MW17  
MW18, MW19, MW20, MW21, MW22, MW23, MW24, MW25, MW26, MW27, MW28

TRIP BLANK: 2 (625 and VOC)

FIELD BLANK: 2 (625 and VOC)

QC SAMPLE: 1 (625)

# OF LABEL	# OF BOT	BOTTLE VOL (ml)	BOTTLE TYPE	ANALYSES	PRESERVATION
0	30	300	Clear BOD	VOC	Place on ice, then acidify with 5 ml of HCl.
90	90	40	Small brown vial	VOC	Pour the HCl acidified sample from the BOD bottle and place on ice.
0	30	300	Clear BOD	VOC (504.1)	Place on ice, then acidify with 5 ml of HCl.
90	90	40	Small brown vial	VOC (504.1)	Pour the HCl acidified sample from the BOD bottle and place on ice.
31	31	2500	Brown jug	625	Place on ice.
29	29	500	Clear plastic	Lead	Acidify with 5 ml of HNO3.

2	Hydrolab H20	6	Small cooler
1	Cell and connector for Hydrolab	5	Large cooler
2	pH buffers (7.00, 4.00)	24	Ice
2	Conductivity standard (match previous data)	6	Evacuation container
3	500 ml bottles for Hydrolab GW readings		Pocket knife / scissor
2	Digital thermometer		Hard hat
2	Calculator		Safety glasses
3	Powderless gloves		Plastic bag
	Data / Calibration forms		Rain gear
	Custody forms	1	Tool box
	Copy of previous data	1	Gas can
	Milli-Q water		
30	50% HNO3 vials	3	Generator
60	50% HCl vials	4	Peristaltic pump
40	Tags for 625 samples	28	Dedicated tubing
4	Water level meter	2 box	Peristaltic pump tubing
2	Product Interface meter	2 box	PVC tubing
1 box	1.5 inch bailer	2	String
1	PID probe		

> COLLECT THE MILLI-Q WATER

> COLLECT AND TIME THE TRIP BLANKS

> GET THE HYDROLAB READOUT UNIT

> GET ICE

*See plant*

# DUKE POWER COMPANY GROUNDWATER MONITORING DATA SHEET

LOCATION:	TODDVILLE		
PROJECT TITLE:	UST		
SAMPLING DATE:	10-Jan-96	FIELD CREW:	LOC, GLF

MONITORING WELL NUMBER: <span style="border: 1px solid black; padding: 2px;">MW12</span>	WATER LEVEL METER #: <span style="border: 1px solid black; padding: 2px;">WW10</span>
	TIME SAMPLE COLLECTED: <span style="border: 1px solid black; padding: 2px;">1000</span>

### WELL VOLUME CALCULATION

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>WELL DIAMETER (INCHES)</th><th>WELL DEPTH (FEET)</th></tr> <tr><td style="text-align: center;">2"</td><td style="text-align: center;">48.25</td></tr> <tr><td style="text-align: center;">4"</td><td style="text-align: center;">N/A</td></tr> </table>	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	2"	48.25	4"	N/A	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>WATER LEVEL (FEET)</th></tr> <tr><td style="text-align: center;">15.74</td></tr> <tr><td style="text-align: center;">N/A</td></tr> </table>	WATER LEVEL (FEET)	15.74	N/A	=	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>WATER COLUMN (FEET)</th></tr> <tr><td style="text-align: center;">32.51</td></tr> <tr><td style="text-align: center;">N/A</td></tr> </table>	WATER COLUMN (FEET)	32.51	N/A	X	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>3.14 x r<sup>2</sup></th></tr> <tr><td style="text-align: center;">0.0218</td></tr> <tr><td style="text-align: center;">0.0873</td></tr> </table>	3.14 x r <sup>2</sup>	0.0218	0.0873	=	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>VOLUME (FT<sup>3</sup>)</th></tr> <tr><td style="text-align: center;">0.7087</td></tr> <tr><td style="text-align: center;">N/A</td></tr> </table>	VOLUME (FT <sup>3</sup> )	0.7087	N/A
WELL DIAMETER (INCHES)	WELL DEPTH (FEET)																									
2"	48.25																									
4"	N/A																									
WATER LEVEL (FEET)																										
15.74																										
N/A																										
WATER COLUMN (FEET)																										
32.51																										
N/A																										
3.14 x r <sup>2</sup>																										
0.0218																										
0.0873																										
VOLUME (FT <sup>3</sup> )																										
0.7087																										
N/A																										

LITERS PER WELL VOLUME REMOVED:

OBSERVATIONS:

WELL VOLUME	LITERS TO REMOVE: (FT <sup>3</sup> x 28.32 L/FT <sup>3</sup> )	
	2" WELL	4" WELL
1	20.07	N/A
5		
10		
20		

ODORS DETECTED:	FREE PRODUCT MEASUREMENT:
TYPE:	METHOD:
STRONG:	THICKNESS:
MINOR:	OTHER:
NONE: <input checked="" type="checkbox"/>	PRODUCT LEVEL (ft): N/A

PID Reading = 0.0 ppm

WATER LEVEL (FEET)	METHOD (P=PUMP, B=BAIL)	VOLUME (LITERS)	EVACUATED VOLUME (LITERS)		pH (units)	TEMP (deg C)	SPECIFIC CONDUCT. (umho/cm)		COMPLETE EVACUATION (Y/N)
15.74	B	20	20		6.57	15.6	493		N
N/A	B	20	40		6.49	17.1	481		N
	B	20	60		6.49	17.1	496		N

COMMENTS: WATER LEVEL AND WELL DEPTH REFERENCED TO TOP OF PVC WELL CASING.

Above ground well in good shape

DIANE POWER COMPANY  
 Laboratory Services  
 MNS Bldg. # 7405 (MG03A1)  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078

CHAIN OF CUSTODY  
**AND**  
**ANALYSIS REQUEST FORM \***

LS CLIENT CONTACT/PHONE: T. Whisenant / 5204  
 CLIENT: TODDVILLE  
 Project Name: UST  
 Results to/Phone: R. SANTINI / 5229  
 Address and/or PROFS: \_\_\_\_\_  
 Matrix (type of samples)/QC Level: GROUNDWATER  
 SAM No.: XXXXXXXXXX

ANALYSES REQUESTED by bottle type—MUST NOTE PRESERVATIVE<sup>12</sup>  
 (may note special DL or Method)<sup>13</sup>

FRAC	CHEMPLOT Number	Sample Description or ID <sup>10</sup>	Collected using sampling instructions <sup>11</sup>			EPA 625 (plus 10 highest TIC's)	EPA 602 (xylenes, MTBE, isotropyl ether, EDB)								
			Date	Time	Name										
		MW12	1/10/98	1000	LDC	-									
		FIELD BLANK		1015	LDC	-									
		TREP BLANK		0530	LDC	-									
		QC - MW12	↓	1005	LDC	-									
Sample Preserved <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>11</sup>			Total # of samples <sup>11</sup> :			4	9								
Name: <u>L.D. Cahill</u>			Delivered by <sup>16</sup> :			Delivered by:			Delivered by:			Turnaround Requested <sup>16</sup> :			
Date/Time:			Date/Time:			Date/Time:			<input checked="" type="checkbox"/> Routine (3 weeks)						
Received by:			Received by:			Received by:			<input type="checkbox"/> Rush (2 weeks)						
									<input type="checkbox"/> Emergency Rush						
									<input type="checkbox"/> Date Results Requested _____						

Comments<sup>17</sup>: \_\_\_\_\_

\* See instructions on back of form.  
<sup>11</sup> White, canary — LS Files    Pink — Client Copy





**APPENDIX  
C**

**Summary of Bramlette Road  
MGP Site Development**

BRAMLETTE ST. MGP  
GREENVILLE S.C.

- 1916: Contract to construct a new coal gas plant on a former baseball field near the Southern Railway Depot awarded to Gallivan Construction Company by Southern Public Utilities. The new plant will replace the Broad St. plant which used the water gas process (oil and coke) which is more expensive. Coke from the new plant will be sold.
- 1917: The new plant is finished in April. Capacity is 170,000 ft<sup>3</sup>/day. Building is 68'x46', 2 benches, 6 retorts each. Tar and ammonia washer tanks for 18,000 gal. tar and 10,000 gal. ammonia. Four inch line to gas holders at Broad St. facility. Facility produces 2,000 tons of coke annually.
- 1918: Addition to Bramlette gas plant, capacity up to 350,000 ft<sup>3</sup>/day. Water gas plant (Broad St) used for peaking. Southern Utilities is replacing all its water gas works with coal gas.
- 1920: Add new water gas set, purifiers, tar extractor and holder to (Broad St.?) plant. Extend distribution system west of Reedy River. Feeder lines to north and east sections of Greenville made last year. Capacity is 350,000 for coal gas and 1,000,000 ft<sup>3</sup>/day for water gas in Greenville.
- 1922: Bramlette plant is increased to 560,000 ft<sup>3</sup>/day capacity. 75% of population within city used gas for cooking or heating or both, serves 3,000 customers. 44 miles of 6" to 16" mains. Bramlette St. holder is 200,000 ft<sup>3</sup>.
- 1945: A water gas plant starts operation at Bramlette St. This plant doubles the gas production capacity in Greenville. The new plant uses the coke by-product from the coal gas plant and mixes it with oil. A 50,000 ft<sup>3</sup> gas holder is also constructed.
- 1951 Duke Power sells the gas operation and property to Piedmont Natural Gas.
- 1963 Piedmont Natural Gas sells the property to Piedmont and Northern Railway.
- 1967 Piedmont and Northern Railway is merged with Seaboard Coast Line Railroad Company.



**APPENDIX  
D**

**Aerial Photographs**

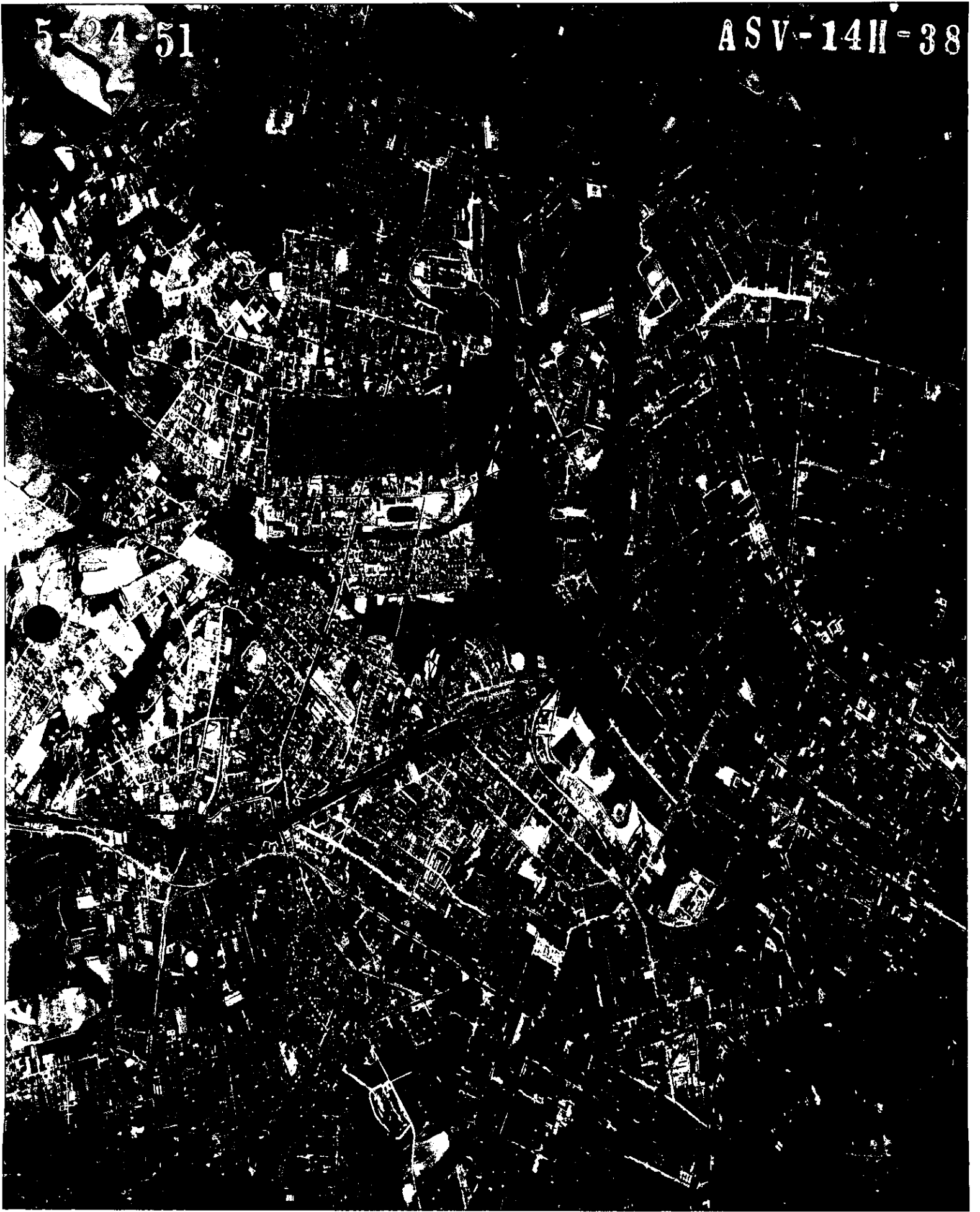
4 3-43

ASV-20-148



5-24-51

ASV-14H-38



4-16-55

ASV-7P-126







1-9-59

12:05

C.S.S-120000

A.S.V.-1A4A-86

86

11-30-65

ASV-266-87



3-26-1

2426 7 129



**APPENDIX  
E**

**Phase III Faunal Assessment Report**

## INTRODUCTION

Aquatic invertebrates, amphibians, and zooplankton were sampled at two locations at the Bramlette site on March 17, 1999; the fish were sampled at the same two locations on March 18. The purpose of the sampling was to inventory the aquatic fauna and to determine if the coal tar had any effect on the aquatic fauna. Sampling locations were established in an area directly over the coal tar plume and in an area downstream, outside the plume.

## SITE DESCRIPTION

The Bramlette wetlands area is subject to greatly varying water depths depending on the intensity and duration of rainfall during a particular year. During the course of the year much of the wetland area dries out so that only a few pools and Ditch 5 might have water throughout the year. Any leaching from the coal tar plume would have the greatest effect on the fauna during low water periods when groundwater would make the greatest contribution to total flow. Conversely, any effects of leachate would be least during wet periods when surface runoff waters would dominate the flow. During March 17 and 18 sampling the water in the wetlands was confined to the flow along the landfill above the beaver dam and in Ditch 5; there were scattered, isolated pools of water in the rest of the wetland area. We assume, therefore, that our sampling was conducted during a "worst case" situation in terms of high potential leachate concentration in the surface waters.

## METHODS

Two sampling locations, two 100 foot squares, were established on March 17, 1999; one was designated Plume Sampling Area (PSA) and the other Non-plume Sampling Area (NSA)(Figure 1). A global position system unit (Trimble Pathfinder Basic Plus) was used to locate the northwest corner of the PSA and the southwest corner of the NSA. The PSA was located so that half the sampling was done above and below an active beaver dam. The dam was located approximately 20 feet south of the ditch cut through the Vaughan landfill. The maximum water depth behind the dam was about 3.5 feet; below the dam there was a broad seepage area with one deeper channel approximately 10 to 15 feet wide with water less than a foot deep. No current measurements were taken but a very low flow was evident.

The NSA was also located above and below a beaver dam, but this dam did not appear to be maintained. The water was confined to the ditch draining the site. Below the dam the ditch was about ten feet wide and water depth was about 18 inches. Above the dam the water was about 3 feet deep and was largely confined to the ditch. The majority of the site was dry; small, isolated pools were scattered throughout the site.

Fish, aquatic macroinvertebrates, and zooplankton were sampled in each of the squares. Amphibians were sampled within each square and, also, in isolated pools between the ditch and sewer lines to the west.

## Zooplankton

Zooplankton was sampled by taking two 3 meter horizontal hauls with a 0.3 meter diameter net with 80u mesh. The contents of the plankton bucket were transferred to a sample bottle and preserved with formalin. In the laboratory, subsamples were examined under a dissecting microscope (12X to 80X) and a compound scope was used for making identifications. The sample bottles were brought to 220 ml with tap water. The samples were thoroughly agitated and four 5 ml subsamples were withdrawn and placed in a square Petri dish with gridlines. Due to the high organic matter content, the samples were examined under a dissecting microscope so that organic matter could be moved to expose zooplankton for counting. All zooplankters in a square were counted at 40X magnification under a Zeiss dissecting microscope. For each sampling location all taxa from each square counted were summed and a percentage per taxon was calculated. Three squares were counted for the PSA and 5 squares were counted for NSA; numbers per liter were calculated for each sampling location. Several additional scans of each sample were made to compile a species list.

## Amphibians

Amphibian collections were conducted at station PSA and NSA. In addition, collections were made in shallow water pools adjacent to NSA. Collection were made using a long handled dip net with a 1000 micrometer mesh bag-net, an enamel pan used as a dipper, and by hand. Incidental amphibian collections were made during electro-fishing. All specimens were preserved in the field in 15% buffered formaldehyde solution. Final specimen storage is in 70% ethyl alcohol. Salientid (frogs and toads) larvae were identified using Altig (1970) and Blair et al. (1968). Adult salientids were identified using Martof et al. (1980).

## Macroinvertebrates

Macroinvertebrates were collected with 1000-micron mesh kick net. The collections were timed so that the sampling effort at each site was the same. Organisms were sorted from debris in the field, preseserved, and returned to the laboratory for identifcaiton.

## Fish

Fish were sampled for 30 minutes at each location using a backpack electrofisher. As many of the stunned fish as possible were collected with dip nets, preserved in 10% formalin, and returned to the lab for identification. All fish were identified to species, enumerated, and individually measured for total length (mm).

## RESULTS AND DISCUSSION

### Zooplankton

Zooplankton of temporary waters vary greatly in number of species and abundance (Galindo et al. 1994; Serrano et al. 1998). Serrano and Toja (1998) reported annual population densities ranging from 21 to 536 individuals per liter in 1991/1992 and 1 to 488 individuals per liter in 1992/1993. The population densities recorded from Bramlette fit into this range. The densities from the NSA location were very low because the net tows did not sample many of the zooplankters that are associated with the substrate. Zooplankton from the PSA and NSA locations were carrying eggs and the presence of immature forms indicated ongoing successful reproduction and survival. The extreme differences in total densities between the locations was due to habitat types. The PSA was more limnetic (due to the beaver dam) as evidenced by *Synchaeta*, *Bosmina*, and *Brachionus*; the NSA populations were dominated by benthic forms such as *Scapholebris* and *Simocephalus*. Based on the zooplankton sampling results, there was no obvious plume effect.

Table Z-1. Percent composition of zooplankton at two Bramlette sampling locations.

	Taxon	Numbers	Percentage	#/liter	
PSA					
	Rotifera	<i>Synchaeta</i> spp.	118	93.6%	55.3
	Copepoda	Nauplii	3	2.4%	1.4
	Cladocera	<i>Bosmina longirostris</i>	5	4.0%	2.3
NSA					
	Copepoda	<i>Cyclops vernalis</i>	1	50%	0.28
	Cladocera	<i>Simocephalus</i> (immature)	1	50%	0.28

Table Z-2. Species list of zooplankton found at two Bramlette sampling locations.

	PSA	NSA
Rotifera		
	<i>Synchaeta</i> spp.	X
	<i>Brachionus</i> sp.	X
Cladocera		
	<i>Bosmina longirostris</i>	X
	<i>Illyocryptus</i> sp.	X
	<i>Scapholebris kingi</i>	X
	<i>Simocephalus exspinosus</i>	X

Copepoda

Cyclopoida		
<i>Cyclops vernalis</i>	X	X
*Copepodites	X	X
*Nauplii	X	X
Harpacticoida	X	

\* Immature developmental stages.

## Amphibians

Bull frog larvae (*Rana catesbeiana*), of approximately the same size were collected at all three sampling stations. In our region this is the only species where larvae regularly over winter as tadpoles taking approximately one year to develop into adults (Martof et al., 1980).

Eleven salientid (frogs and toads) egg masses were observed in the marsh sampling area. These egg masses were in irregular balls indicating probable ranid parentage. The observed egg masses were much larger than would be expected from the tree frog species (all of which are small) expected to be found in the upper Piedmont of South Carolina.

Calls of the spring peeper, *Hyla crucifer*, were heard throughout the entire area during the sampling period. In addition, three distinct additional salientid calls were also noted, although adults associated with these calls were not observed. No salamander species were observed.

Larval and adult collections, observed egg masses, and adult calls in and around the sampling stations is indicative of successful salientid breeding within the sampled Bramlette wetland. Amphibian collections are summarized in Table A-1.

Table A-1. Amphibian species collected at three Bramlette sampling locations.  
L=larvae (tadpoles); A=adults.

Species	PSA	NSA	NSA- pool
<i>Rana catesbeiana</i> - L	X	X	X
<i>R. sphenoccephala</i> -A	X	-	-
<i>Hyla crucifer</i> - A	-	-	X
Egg masses	-	-	X

## Macroinvertebrates



A total of 34 taxa were collected at the Bramlette site, 26 within the area potentially affected by the plume, and 19 outside the plume area (Table M-1). The two locations had 11 taxa in common. The available habitats at the respective locations accounts for much of the differences in the macroinvertebrate communities. Although the PSA site is primarily lentic, and the NSA lotic, many of the insects found may inhabit either environment (Merritt and Cummins 1996). The PSA site had a greater variety of habitats available with the pool area of emergent vegetation, snags, silt, and leaf litter, and a smaller area of flowing water with some sand, silt, and leaf litter. At the NSA habitat types consisted primarily of snags, leaf litter, and silt.

The beaver dam at PSA was old, and the pond had been there for some time, and macroinvertebrates collected there had obviously established reproducing populations. It does not appear that coal tar has had an effect on the macroinvertebrate community.

Table M-1. Macroinvertebrates collected during the Bramlette site sampling on March 17, 1999. An "R" means that the organism was rare (1 or 2 collected), "C" = common (3-9), and "A" = abundant (10 or more).

TAXON	PSA	NSA
Annelida		
Oligochaeta		
Haplotaxida		
Naididae		
Pristina sima	R	.
Tubificidae	C	R
Limnodrilus claparedianus	C	.
Limnodrilus profundicola	R	.
Spirosperma ferox	A	A
Lumbriculida		
Lumbriculidae		
Eclipidrilus spp.	.	C
Lumbriculus	C	.
Arthropoda		
Crustacea		
Decapoda		
Cambaridae		
Procambarus troglodytes	A	A
Insecta		
Coleoptera		
Curculionidae		
Lixus spp.	R	.
Dytiscidae		
Agabus obtusatus	R	.
Agabus punctatus	.	R

Agabus stagninus	C	.
Hydroporus spp.	C	R
Hygrotus spp.	R	.
Neoporus lynceus	C	C
Hydrophilidae		
Tropisternus blachleyi blaclheyi	R	R
Diptera		
Ceratopogonidae		
Palpomyia-Bezzia complex	.	R
Chironomidae-Chironominae		
Chironomus spp.	A	C
Glyptotendipes spp.	C	.
Polypedilum spp.	R	.
Chironomidae-Orthoclaadiinae		
Orthocladus spp.	.	R
Psectrocladius spp.	.	R
Chironomidae-Tanypodinae		
Krenopelopia spp.	A	C
Meropelopia spp.	R	.
Procladius spp.	C	.
Simuliidae		
Simulium spp.	R	.
Stratiomyidae		
	R	.
Hemipterara		
Gerridae		
Neogerris hesione	.	C
Heteroptera		
Corixidae		
Trichocorixa spp	.	R
Odonata-Anisoptera		
Aeshnidae		
Aeshna umbrosa	.	R
Libellulidae		
Plathemis lydia	C	.
Trichoptera		
Limnephilidae		
Ironoquia spp.	A	R
Mollusca		
Gastropoda		
Basommatophora		
Physidae		
Physella spp.	C	R
Pelecypoda		
Heterodonta		

Sphaeriidae	A	A
TOTAL TAXA FOUND	26	19

## Fish

Only three species of fish were collected at the two sampling locations (Table F-1). Eastern mosquitofish (*Gambusia holbrooki*) were numerically dominant at each location and they were considerably more abundant at the station located within the coal tar plume (PSA) than below it (NSA). The mean length for eastern mosquitofish at the PSA station was 25 mm with a range in lengths of 11 to 40 mm. This indicates that this species of fish was reproducing at this location and that several year classes were present.

The station located outside of the coal tar plume (NSA) had greater species diversity, but lower fish densities (Table F-1). In addition to the eastern mosquitofish, green sunfish and bluegill were also collected at the NSA station. However, only 5 fish were collected at this station compared to 115 collected at the PSA station. With the low numbers of fish collected at the NSA station, it was difficult to determine if reproduction was occurring here or if these fish were migrants from upstream (eastern mosquitofish) or from the nearby Reedy River (green sunfish and bluegills) during flood periods.

Due to the uniqueness of the current study site, little comparable fishery data are available. However, Wegener et al. (1973) in vegetated aquatic areas associated with Florida's Lake Tohopekaliga and Carlson and Duever (1977) in a south Florida cypress strand reported that mosquitofish were one of the most abundant species to inhabit these areas. Therefore, their dominance at the Bramlette Road site is not unusual. It is also not unusual that they were more abundant at the PSA station where water levels were deeper and somewhat stabilized by the beaver dams than at the NSA station where water levels were shallow and more vulnerable to drought. The NSA station also lacked vegetation that might provided cover for the eastern mosquitofish from predation by green sunfish and bluegills at the PSA station. Predation by these fish may have resulted in the low density of eastern mosquitofish at this station.

## Summary

Sampling results from the Bramlette site indicated that species dependent on water for completing all or part of their life cycle were present at the plume and non-plume areas. Differences in taxonomic composition and species abundance between the sampling areas were great in some instances. This was largely due to the extreme differences in the habitat types: the plume sampling area was dominated by the beaver pond and the non-plume sampling area consisted almost entirely of the drainage ditch. Based on the sampling results of March 17 and 18, 1999, aquatic and semi-aquatic species were found in the plume and non-plume areas indicating that the animal populations were self sustaining.

## LITERATURE CITED

- Altig, R. 1970. A key to the tadpoles of the continental United States and Canada. *Herpetologica* 26:180-207.
- Blair, W.F., A.P. Blair, P. Brodkorb, F.R. Cagle, and G.A. Moore. 1968. *Vertebrates of the United States*, 2nd Ed. McGraw-Hill Book Co., New York, N.Y.
- Carlson, J. E. and M. J. Duever. 1977. Seasonal fish population fluctuations in south Florida swamp. *Proceedings of the Annual Conference of the Southeastern Association of Fish and Wildlife Agencies* 31:603-611.
- Galindo, M D., N. Mazuelos, J. A. Mata, and L. Serrano. 1994. Microcrustacean and rotifer diversity and richness relating to water temporality in different ponds in the Donana National Park. *Verh. Internat. Limnol.* 25:1350-1356.
- Martof, B.S., W.M. Palmer, J.R. Bailey, J.R. Harrison, III. 1980. *Amphibians and reptiles of the Carolinas and Virginia*. Univ. North Carolina Press, Chapel Hill, N.C.
- Merritt, R.W., and K.W. Cummins. 1996. *An Introduction to the Aquatic Insects of North America*. Kendall/Hyunt Publishing Company, Dubuque, IA.
- Serrano, L., and J. Toja. 1998. Interannual variability in the zooplankton community of a shallow temporary pond. *Verh. Internat. Limnol.* 24:1575-1581.
- Wegener, W., D. Holcomb, and V. Williams. 1973. Sampling shallow water fish populations using the Wegener ring. *Proceedings of the Annual Conference of the Southeastern Association of Game and Fish Commissioners* 27:663-673.

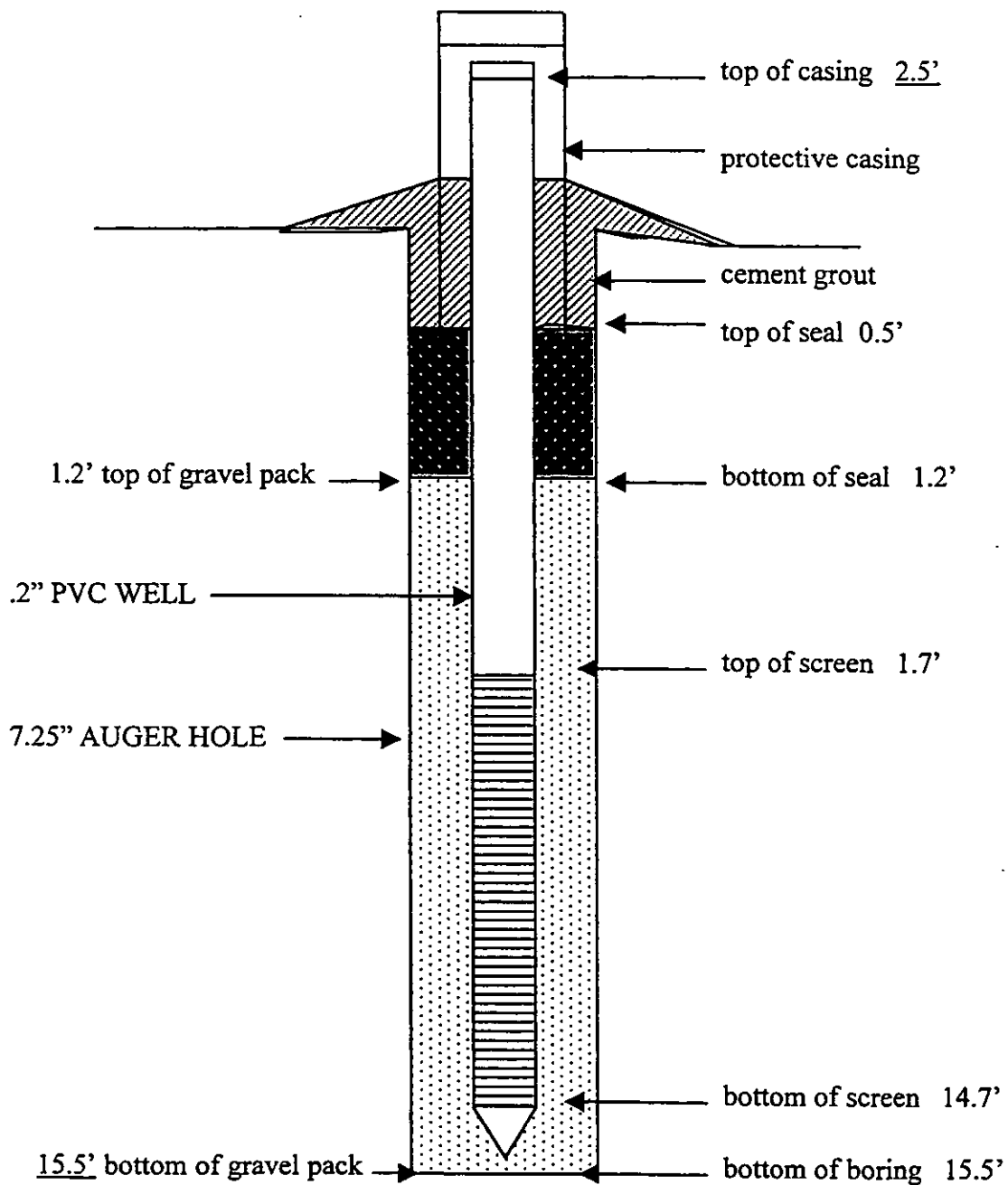


**APPENDIX  
F**

**Phase III  
Monitoring Well  
Construction Records**

# MONITORING WELL INSTALLATION RECORD

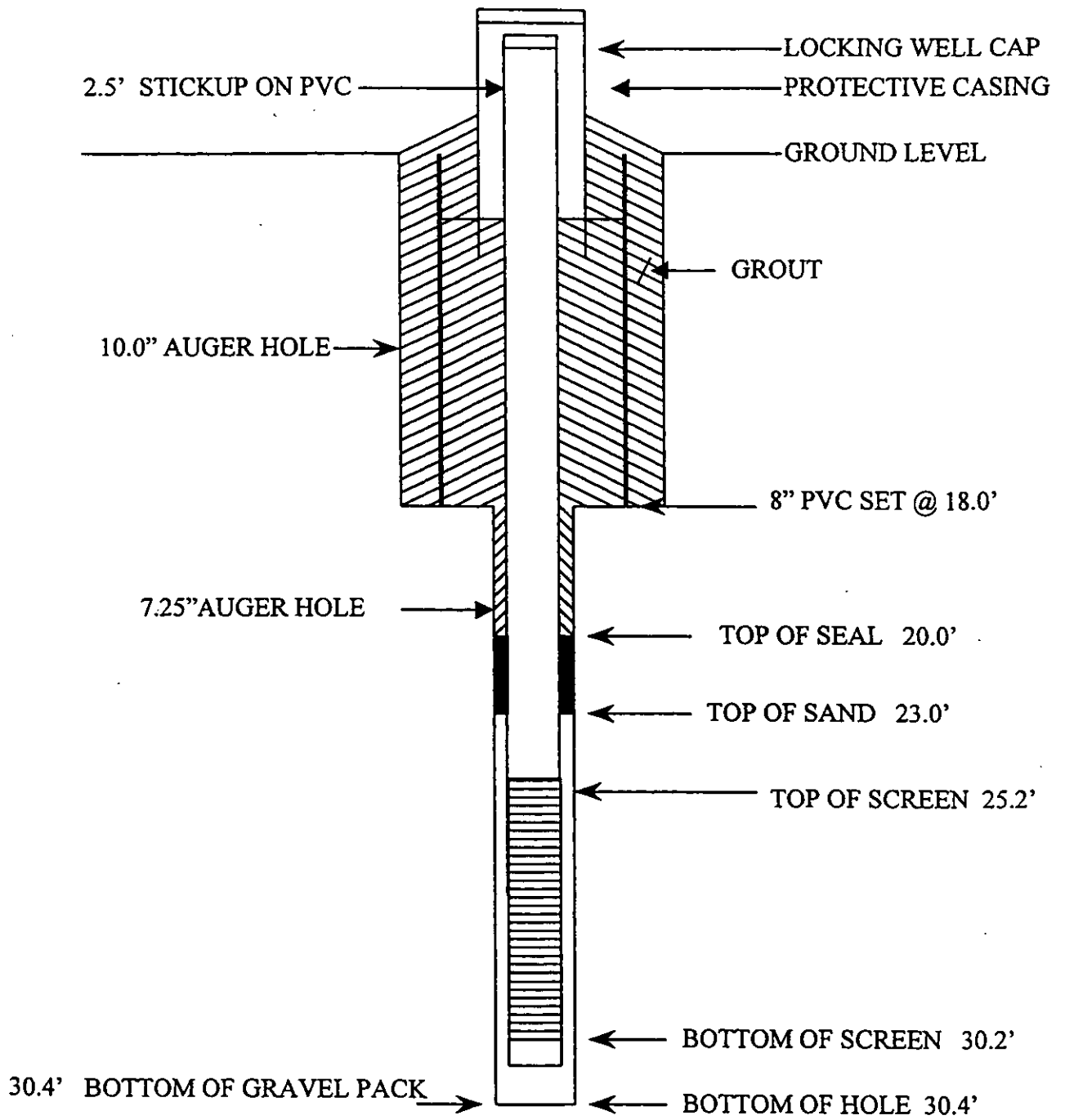
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-8-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-8

# MONITORING WELL INSTALLATION RECORD

JOB NAME: BRAMLETTE MGP SITE



DATE INSTALLED: 03-11-99

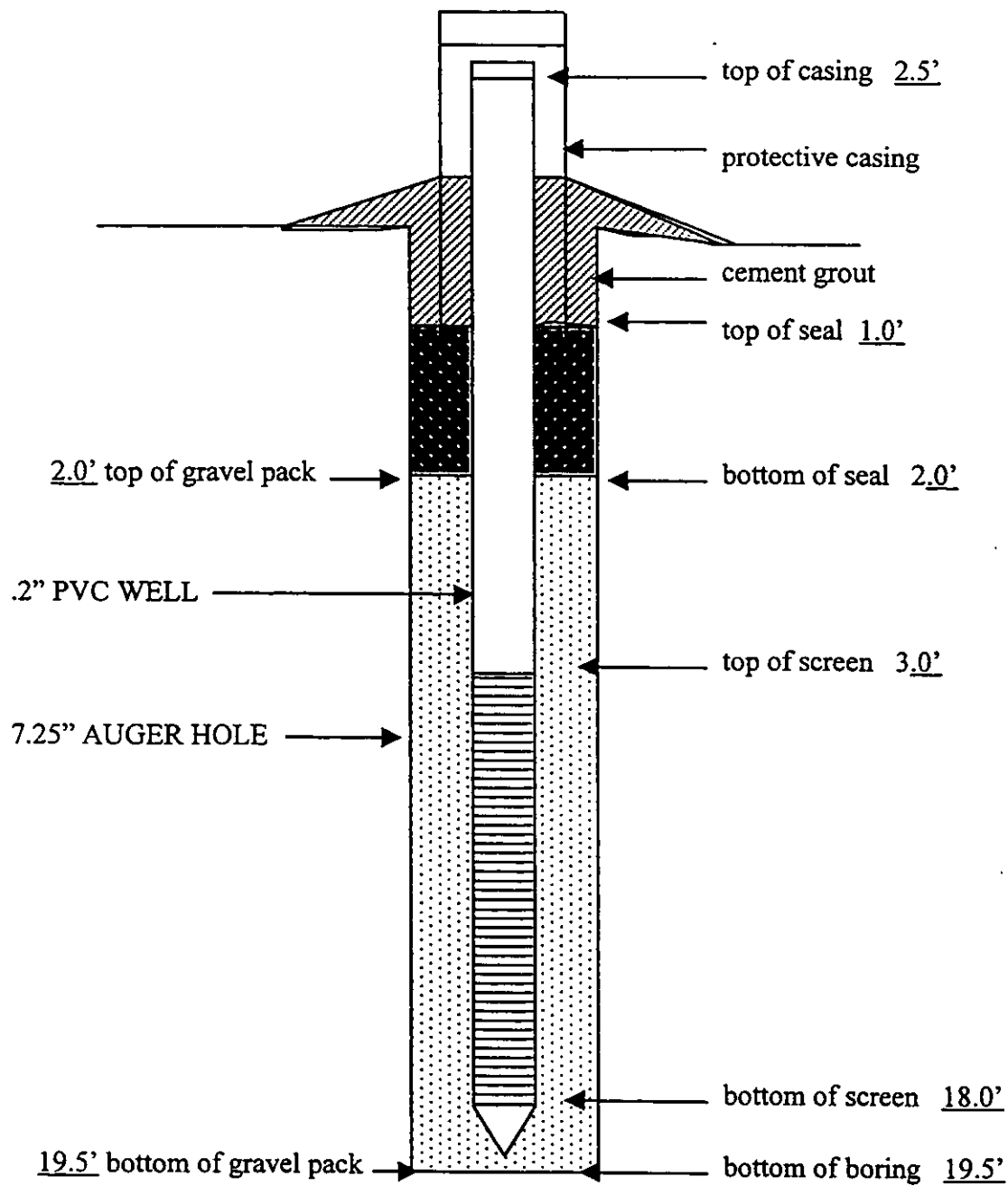
INSPECTOR: C.A. MEDLIN

MONITORING WELL: MW-9



# MONITORING WELL INSTALLATION RECORD

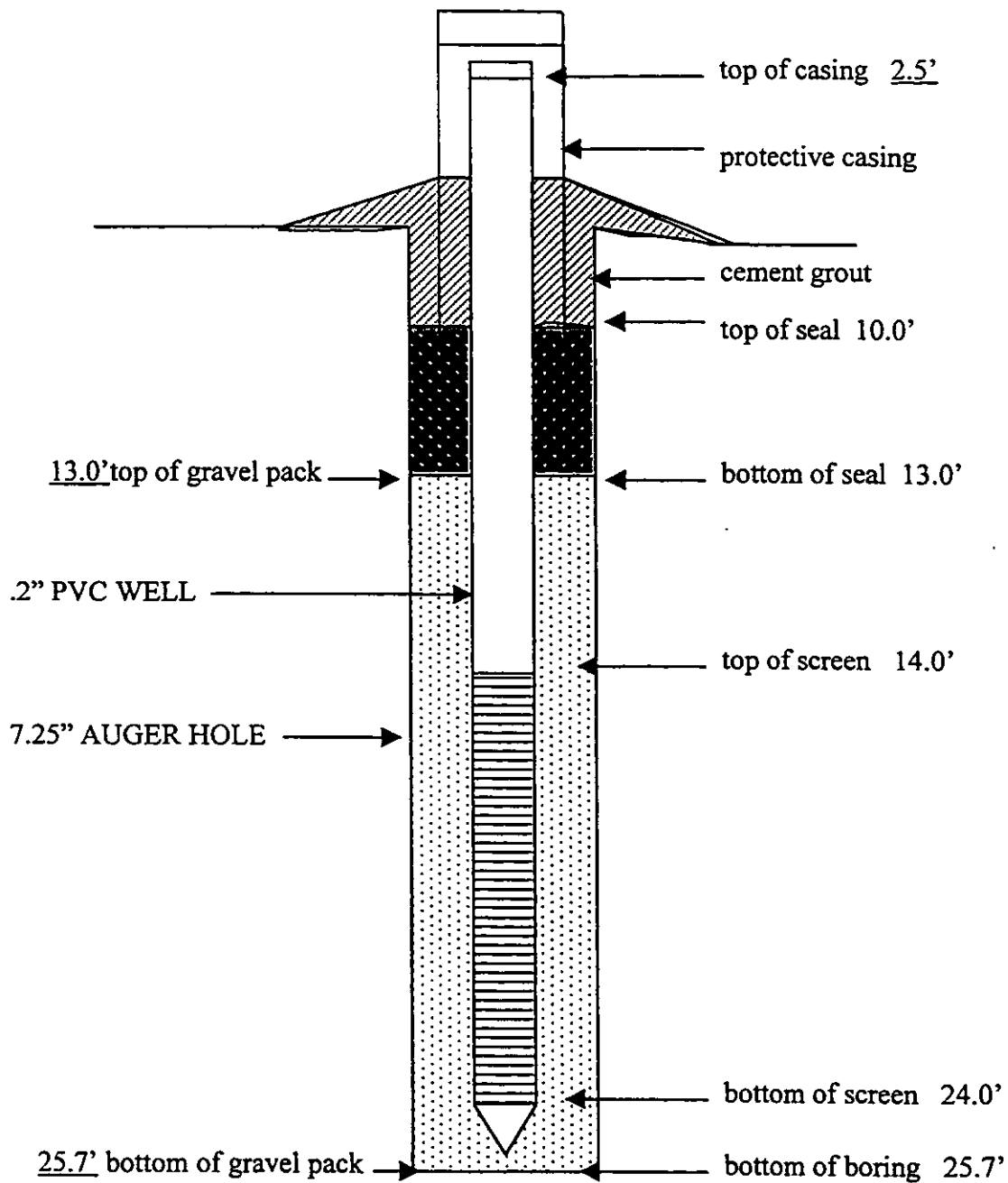
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 02-24-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-10

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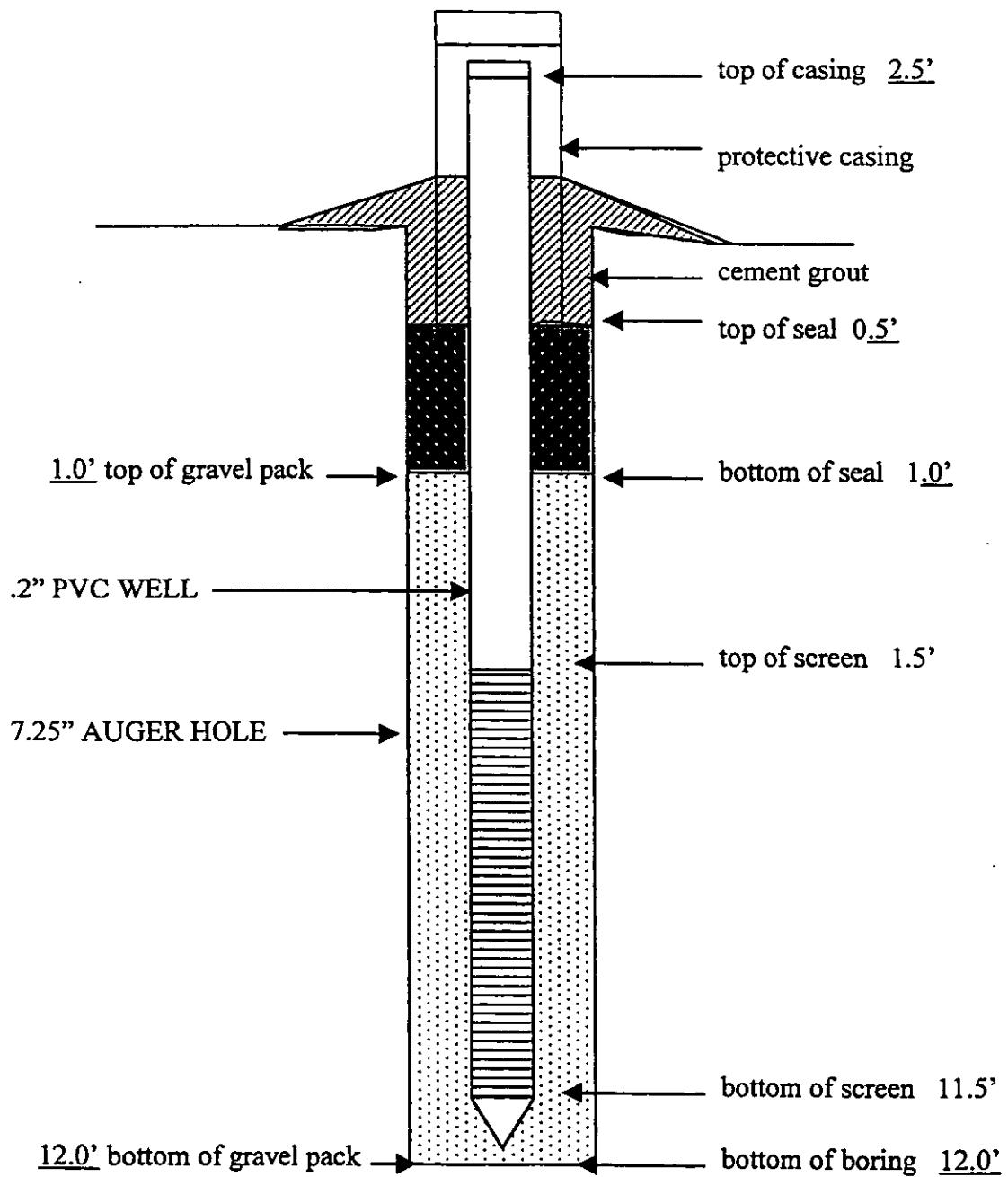
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 02-25-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-11

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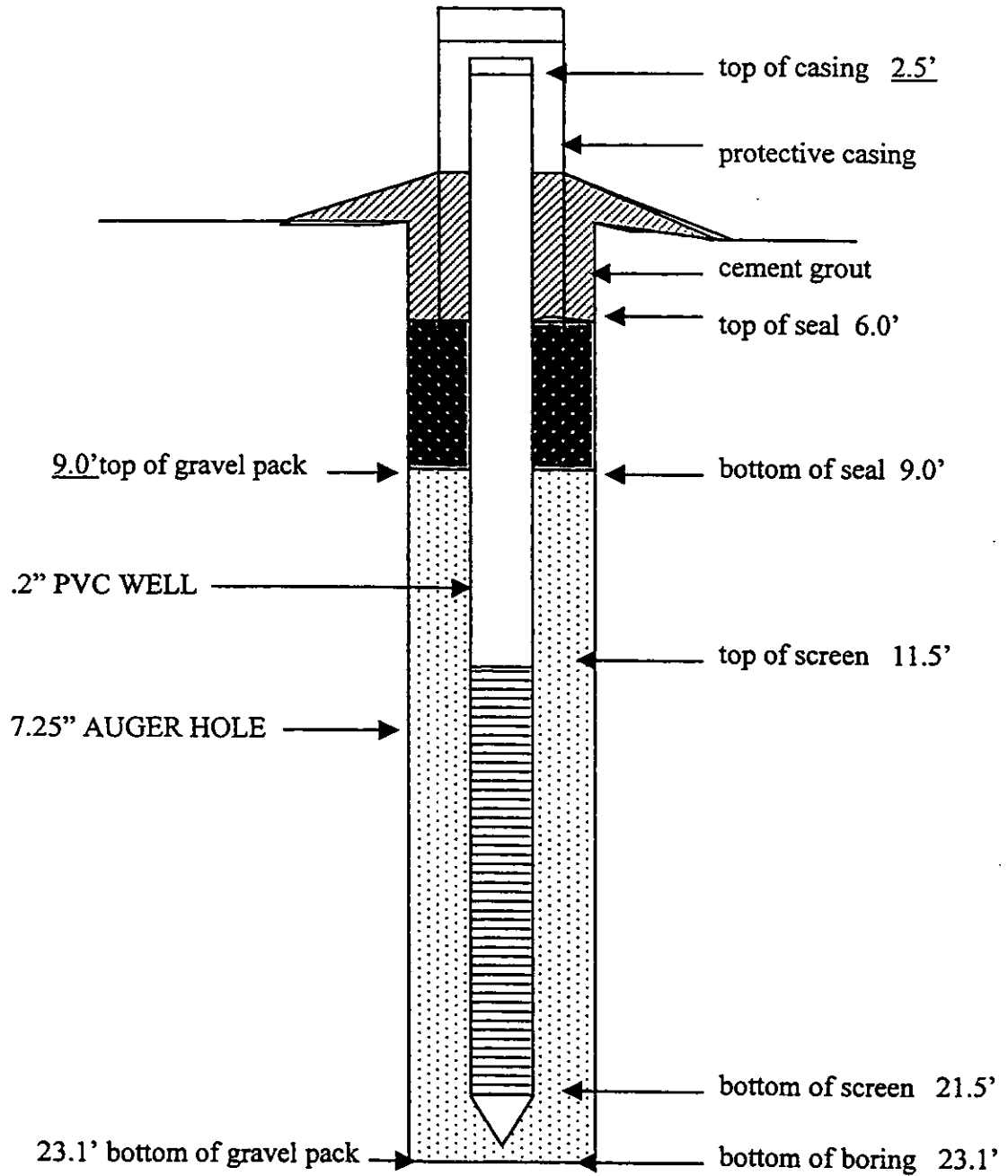
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 02-25-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-12

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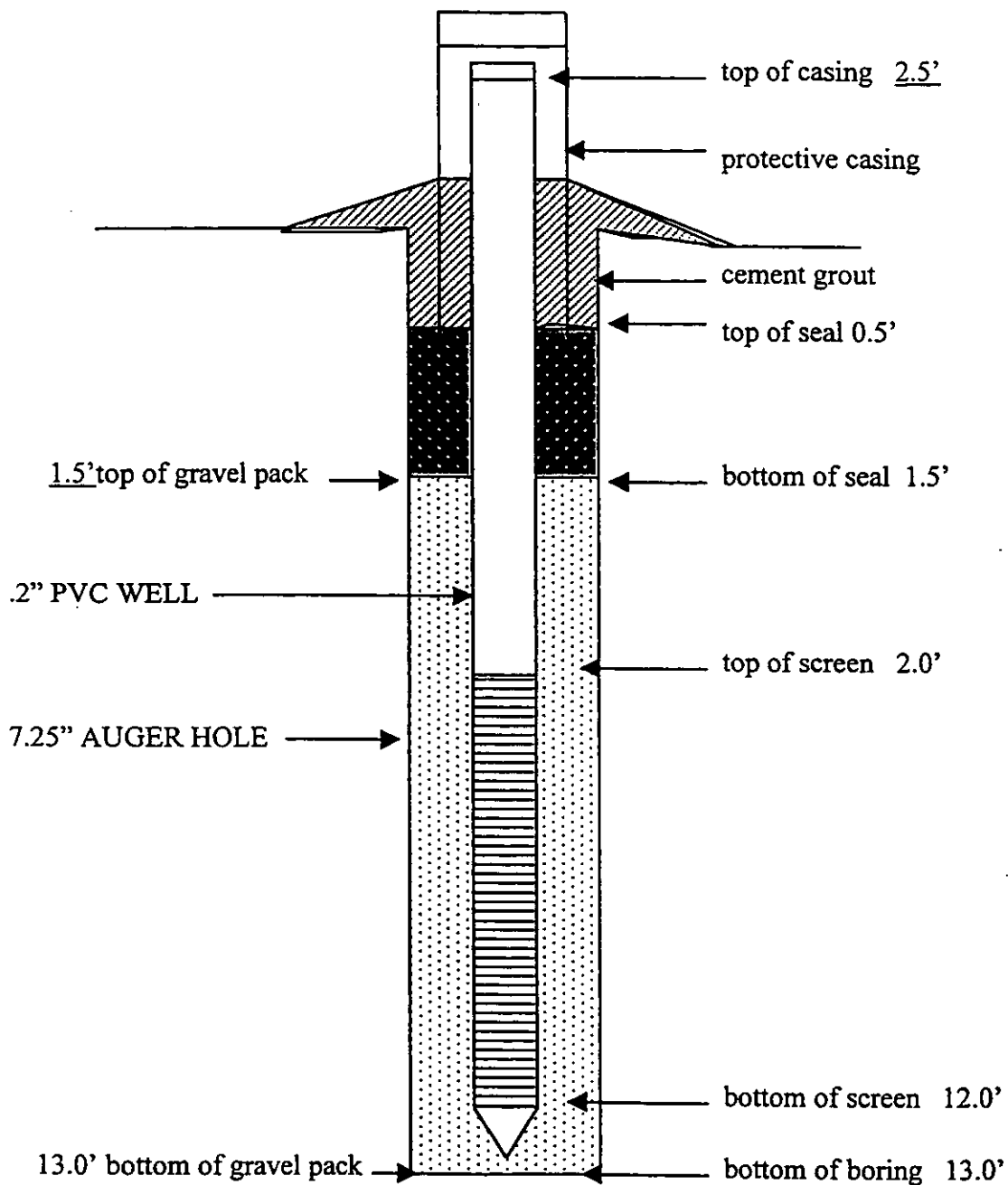
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-18-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-13

# MONITORING WELL INSTALLATION RECORD

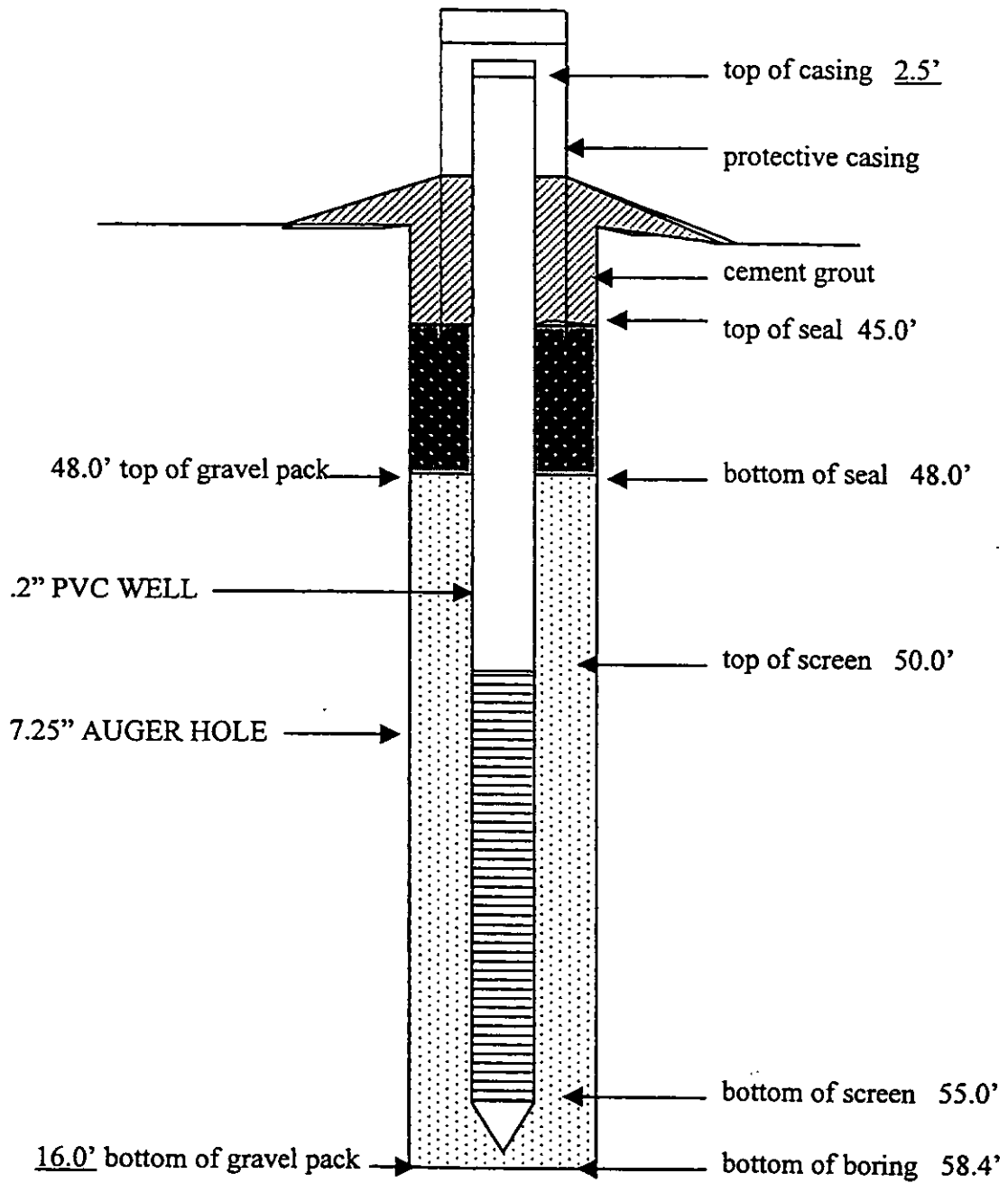
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-18-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-14

# MONITORING WELL INSTALLATION RECORD

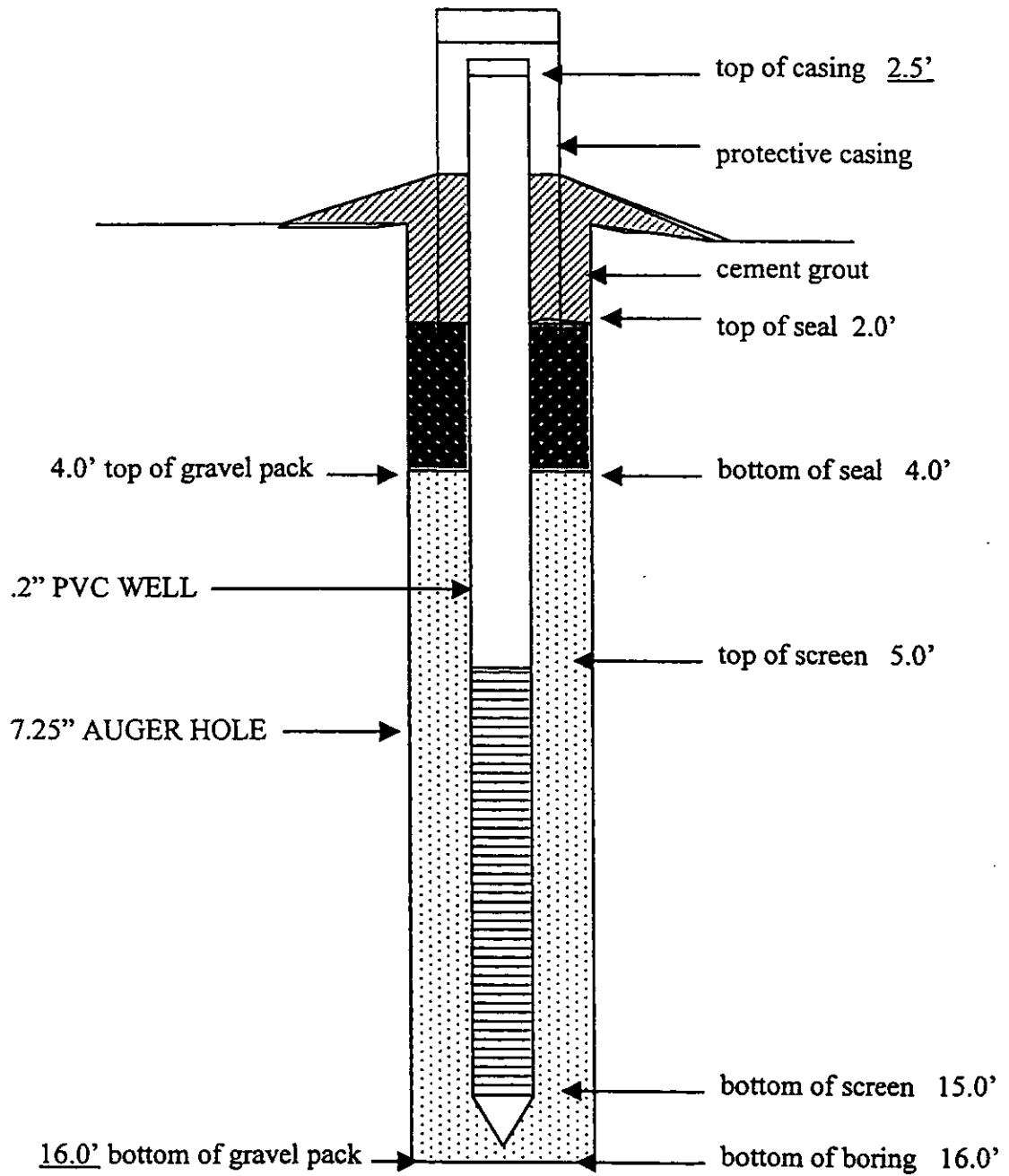
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-4-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-15

# MONITORING WELL INSTALLATION RECORD

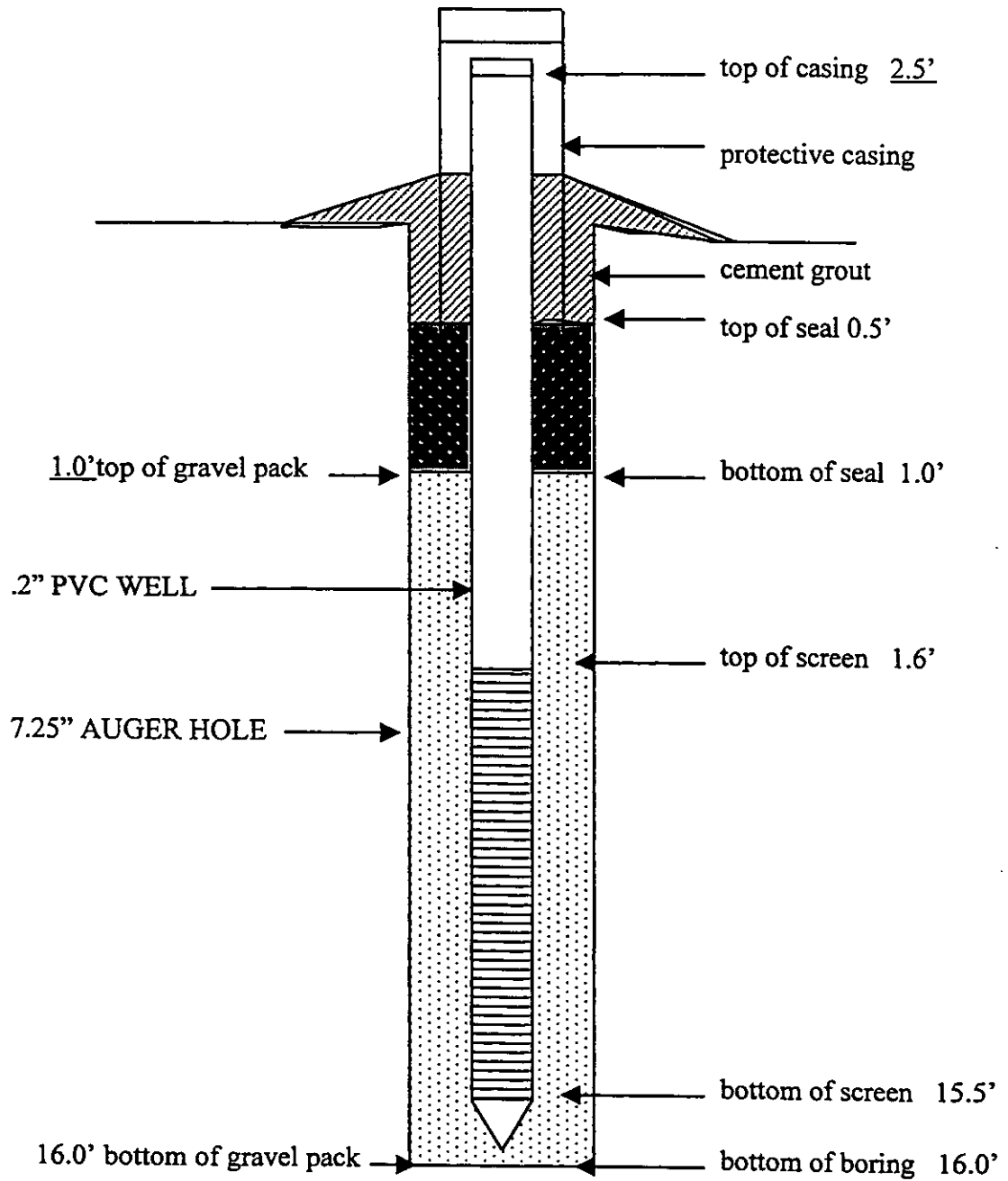
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-8-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-16

# MONITORING WELL INSTALLATION RECORD

JOB NAME: Bramlette MGP Site

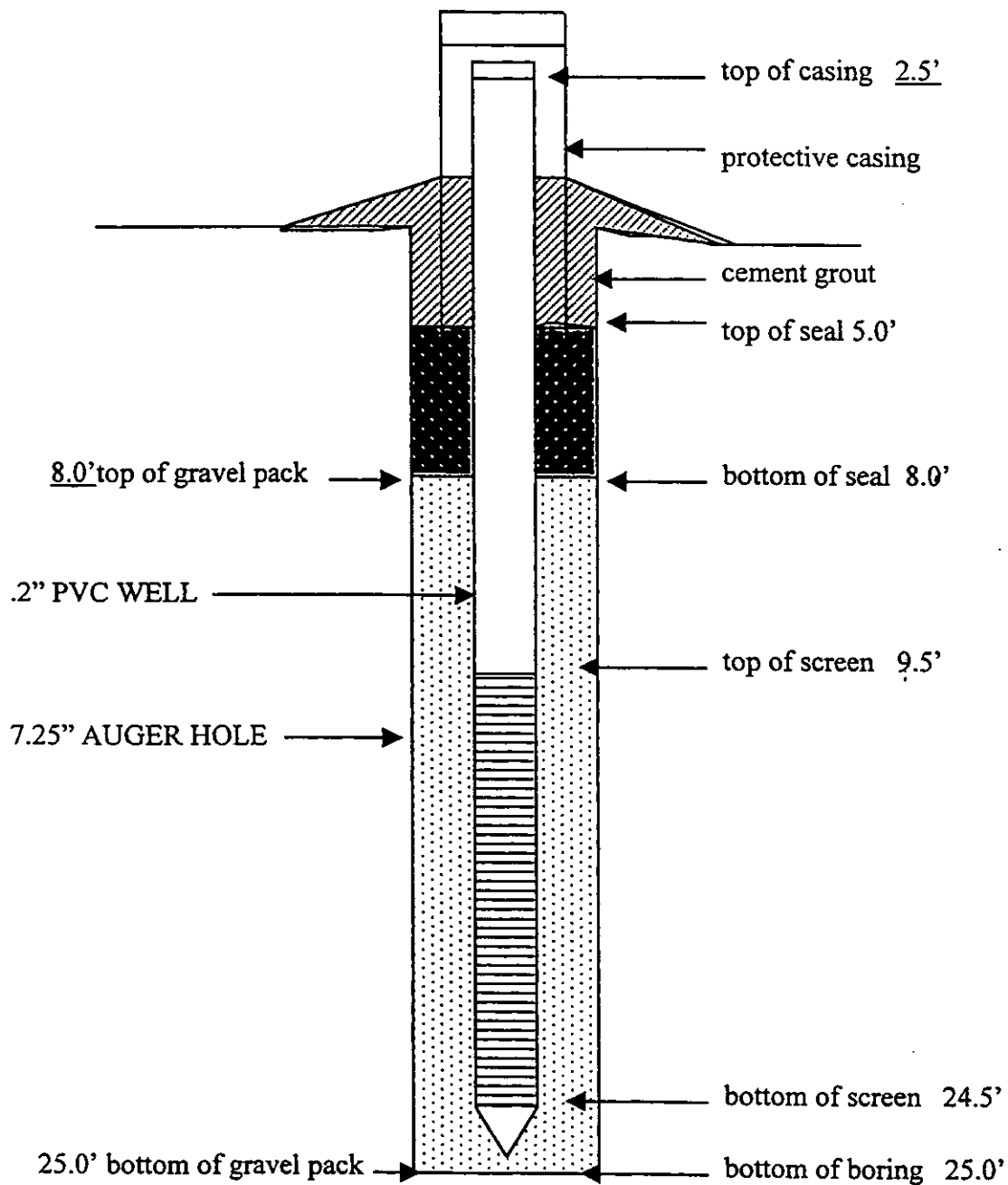


DATE INSTALLED: 03-17-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-17



# MONITORING WELL INSTALLATION RECORD

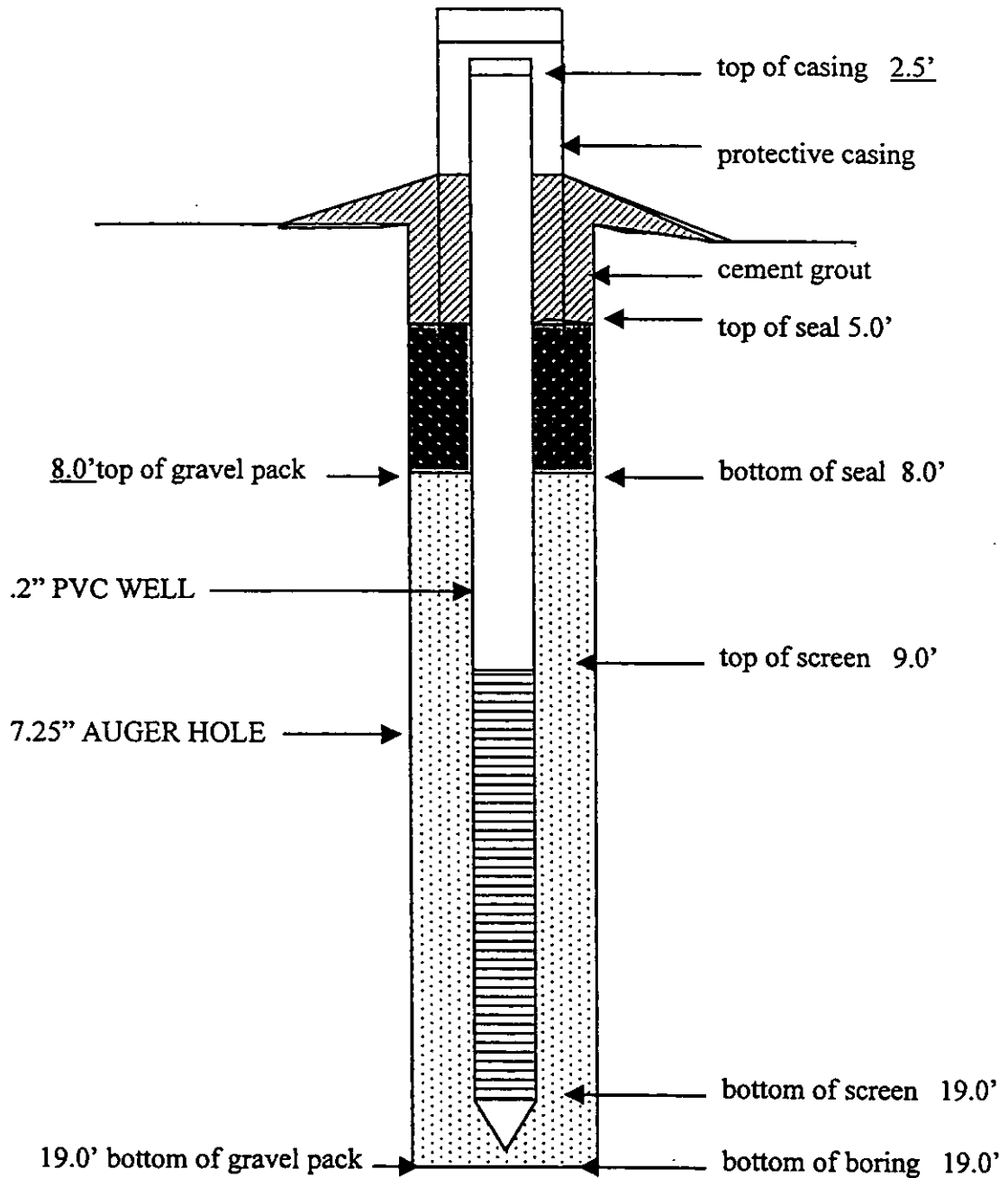
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-23-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-18

# MONITORING WELL INSTALLATION RECORD

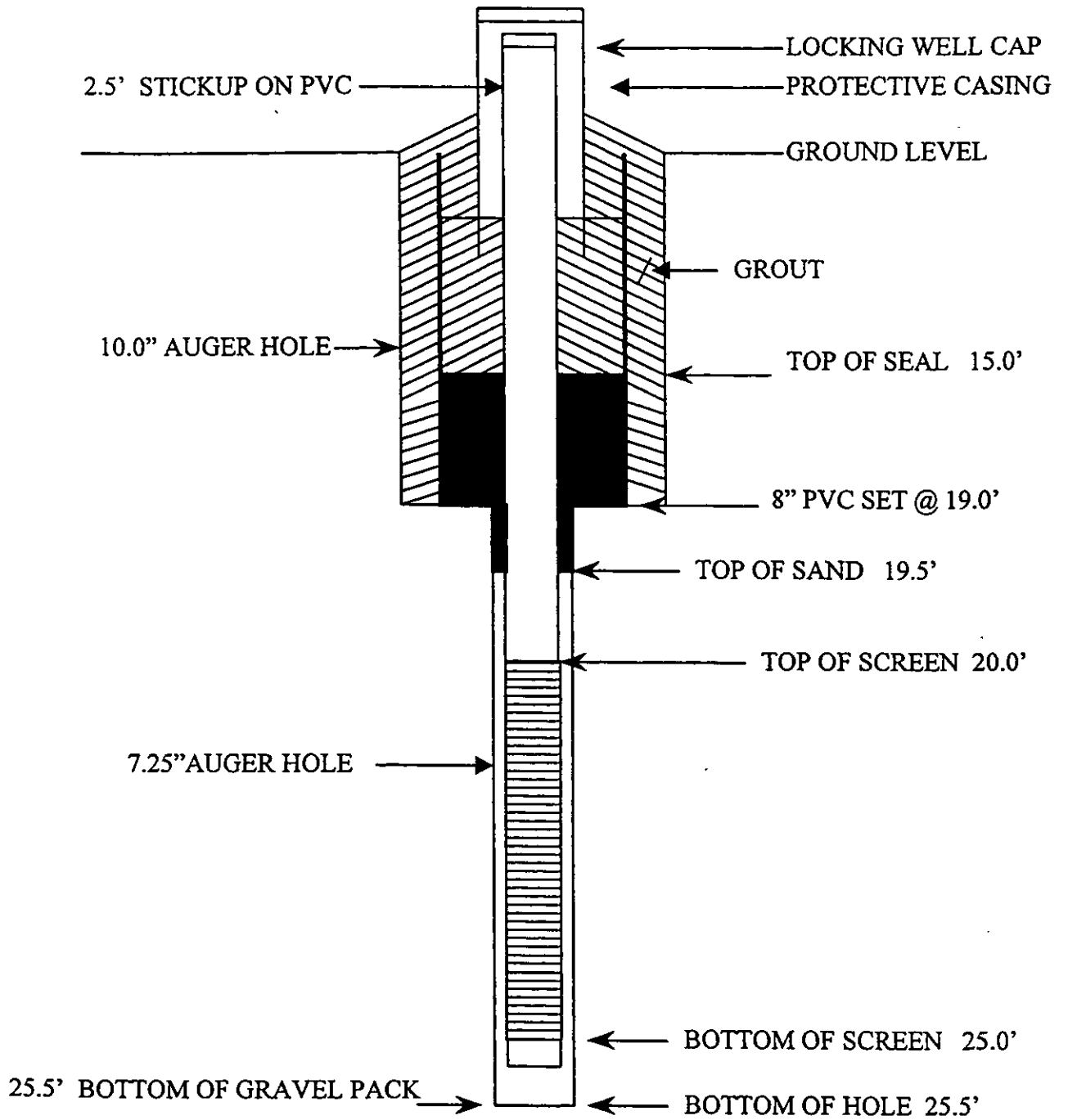
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-25-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-19

# MONITORING WELL INSTALLATION RECORD

JOB NAME: BRAMLETTE MGP SITE



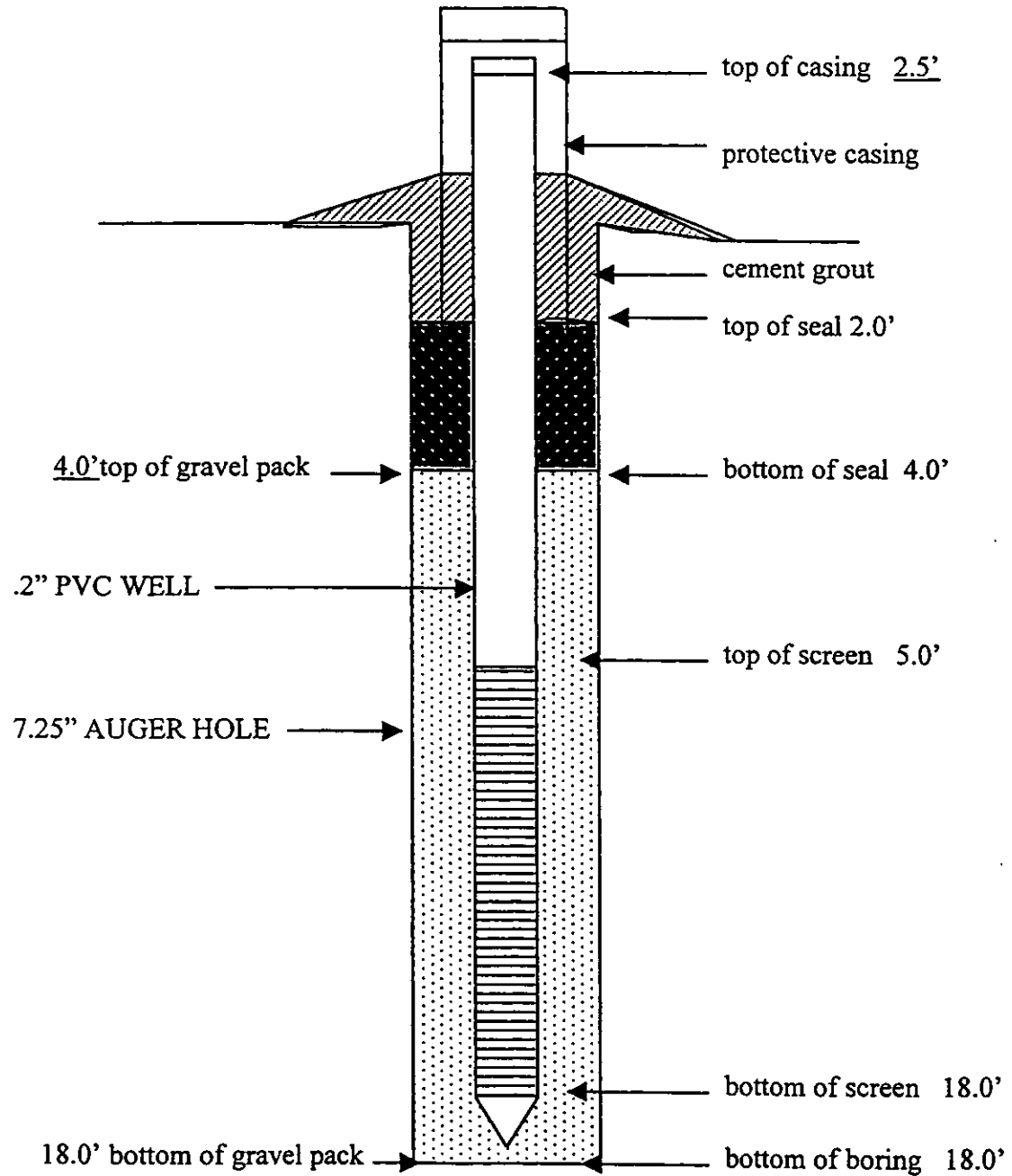
DATE INSTALLED: 04-01-99

INSPECTOR: C.A. MEDLIN

MONITORING WELL: MW-20

# MONITORING WELL INSTALLATION RECORD

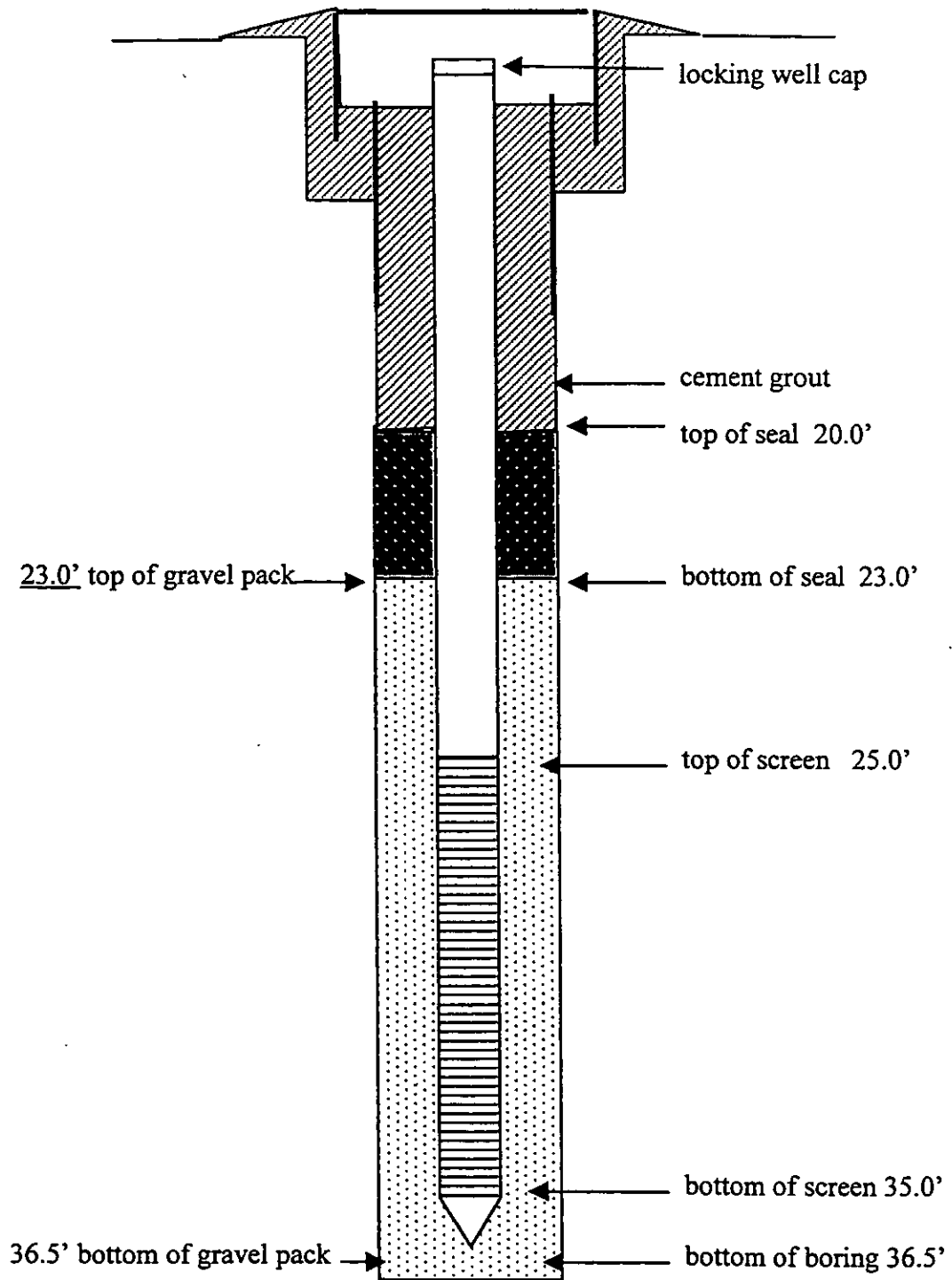
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 03-29-99  
INSPECTOR: C A Medlin  
MONITORING WELL: MW-21

# MONITORING WELL INSTALLATION RECORD

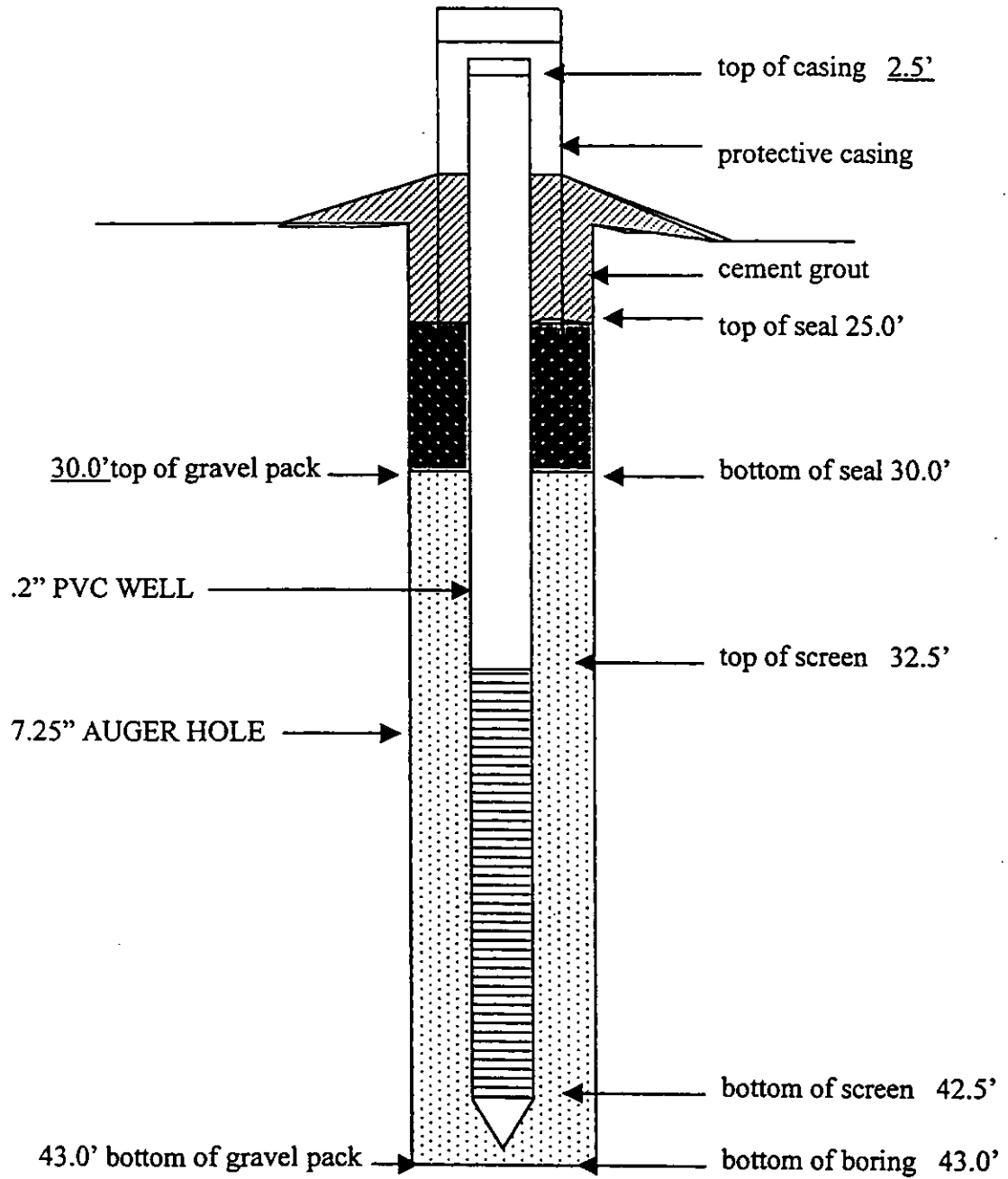
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 04-07-99  
INSPECTOR: C.A.MEDLIN  
MONITORING WELL: MW-22

# MONITORING WELL INSTALLATION RECORD

JOB NAME: Bramlette MGP Site



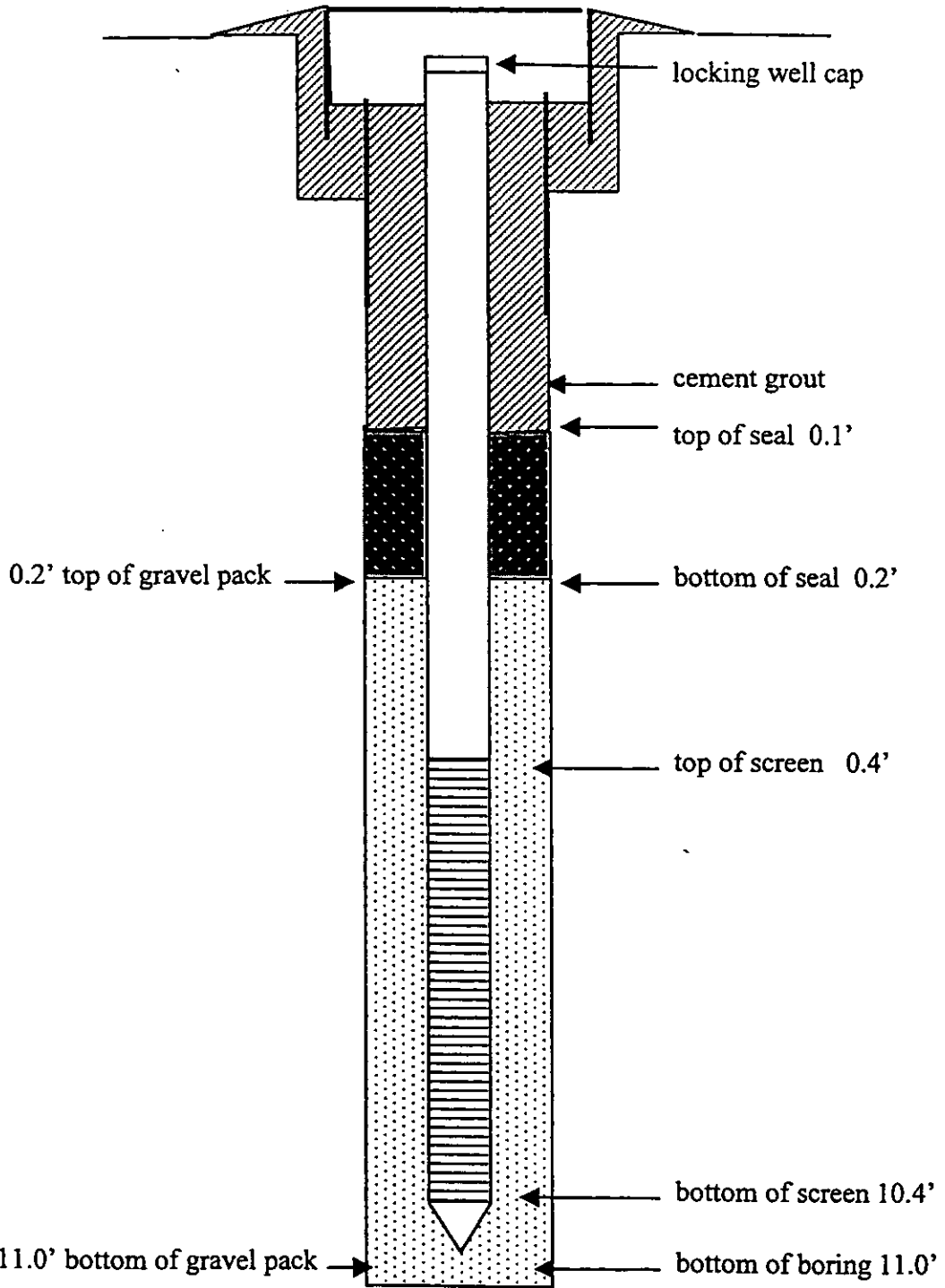
DATE INSTALLED: 05-03-99

INSPECTOR: C A Medlin

MONITORING WELL: MW-23

# MONITORING WELL INSTALLATION RECORD

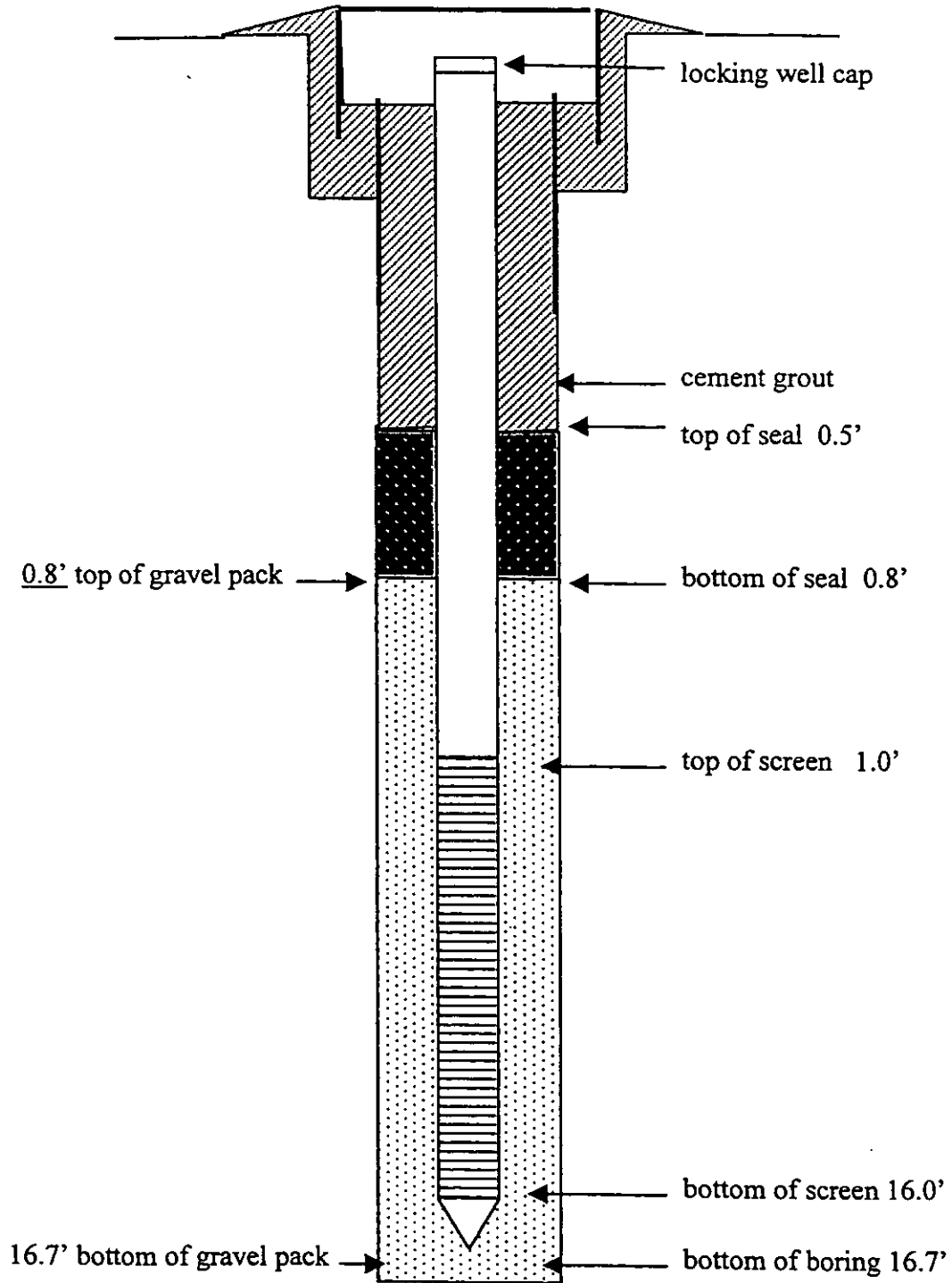
JOB NAME: Bramlette MGP Site



DATE INSTALLED: 05-03-99  
INSPECTOR: C.A.MEDLIN  
MONITORING WELL: MW-24

# MONITORING WELL INSTALLATION RECORD

JOB NAME: Bramlette MGP Site



DATE INSTALLED: 05-05-99  
INSPECTOR: C.A.MEDLIN  
MONITORING WELL: MW-25



DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-8

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Mid Depth and shallow well combined

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 3-8-99

WEATHER Clear

INSPECTOR/DRILLER

C.A. Medlin, Jim Baker

note:  
odor in  
all 10 spous

	SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"			
				0		
1	2.0'	7	6	10		note: had to go to 2.0' to get past brick and junk yellowish/BEN / Black slightly mica, silty, fine/coarse sand look like coal mixed in sample
	3.5'					
2	3.5'	5	2	1		Brownish Gray / Black slightly mica, silty, fine/med. sand
	5.0'					
3	5.0'	2	2	2	5	Dark Gray slightly mica, silty fine/med. sand. Last 6" of sample was yellowish gray silty clay (Pure clay)
	6.5'					
4	6.5'	2	2	3		Grayish BEN, slightly mica, silty fine sandy clay
	8.0'					
5	8.0'	2	1	1	10	Brownish Gray slightly mica, silty fine sand with silty clay seams in sample
	9.5'					
6	9.5'	2	3	4		yellowish BEN / Gray slightly mica, very silty fine sand
	11.0'					
7	11.0'	9	6	4		yellowish BEN, mica, very silty fine sand (Pure sand)
	12.5'					
8	12.5'	5	8	6	15	yellowish BEN, mica, very silty fine sand (Pure sand)
	14.0'					
9	14.0'	4	4	5		Gray mica, silty fine/coarse sand Looking like weathered rock
	15.5'					
10	15.5'	7	28	15	20	Gray mica, silty fine/coarse sand
	17.0'					
					25	Setting a 2" well with a 13.0' screen set from 1.7' to 14.7' with sand up to 1.2' and a Bentonite seal up to 0.5'
					30	
					35	
					40	

3-10-99

H<sub>2</sub>O @ 2.2'

BORING TERMINATED	<u>170'</u>
BORING REFUSAL	<u>N/A</u>
WATER TOB DEPTH	<u>2.2' over site - 3-10-99</u>
WATER 24 HR:DEPTH	<u>2.7' over site - 3-11-99</u>
WATER LOSSES	<u>None used</u>
CASING SIZE	<u>N/A</u> LENGTH <u>N/A</u>

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	<u>0.0' TO 170'</u>
HAND CHOP: W/MUD: W/WATER	<u>- TO -</u>
ROTARY DRILL: W/MUD: W/WATER	<u>- TO -</u>
DIAMOND CORE	<u>- TO -</u>

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE  
 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

(17)

DUKE POWER COMPANY

PROJECT Greenville Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-9

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Deep Well

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 3-10-99 WEATHER clear

INSPECTOR/DRILLER

CA. Medlin, Jim Barker  
Rooster Dickard

SCALE	UD	SAMPLING			SOIL CLASSIFICATION AND REMARKS
		1ST 6"	2ND 6"	3RD 6"	
0					
5					RAN 10" Auger down to 18.0' AND Grouted a 8" PVC Pipe Down to 16.4'; Drill Rig wouldn't Push Pipe ON down to 18.0'
10					
15					Samples From 0.0' - 18.0' taken From MW-8 approx. 6.0' AWAY
16.4'					
18.8'		3	3	4	Black / Gray, mica, silty Fine / coarse sand
20.3'					NO odor Looks like weathered <sup>rock</sup> <sub>material</sub>
21.8'		2	2	4	Whitish Gray, mica, silty Fine / coarse sand
23.3'					NO odor
24.8'		3	4	5	Whitish Gray / Yellowish Red, mica, silty Fine / coarse sand
26.3'					NO odor
27.8'		3	4	6	Yellowish Red, mica, silty Fine / coarse sand
29.3'					NO odor
30.8'		5	9	13	Yellowish Red, mica, silty Fine / coarse sand
32.3'					NO odor
33.8'		8	13	11	Gray / Yellowish Red, mica, silty Fine / coarse sand
35.3'					NO odor
36.8'		8	21	47	Yellowish Gray, mica, silty Fine / coarse sand
38.3'					
39.8'		26	50 = 3"		Yellowish Red / Gray mica, silty Fine / coarse sand
41.3'					7 1/4" Auger Refusal @ 30.4'
42.8'					
44.3'					Set 2" well with a 5.0' screen From 25.2' to 30.2'
45.8'					
47.3'					
48.8'					
50.3'					

16.4'

3-11-99

BORING TERMINATED	<u>30.4'</u>
BORING REFUSAL	<u>30.4' w/ 7 1/4" Auger</u>
WATER TOB DEPTH	<u>N/A</u>
WATER 24 HR. DEPTH	<u>2.5' 3-16-99</u>
WATER LOSSES	<u>None - used</u>
CASING SIZE	<u>N/A</u> LENGTH <u>N/A</u>

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0.0' TO 30.4'
HAND CHOP/W/MUD/W/WATER	- TO -
ROTARY DRILL W/MUD/W/WATER	- TO -
DIAMOND CORE	- TO -

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-10

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Mid Depth + shallow combined

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 2-23-99

WEATHER cloudy

INSPECTOR/DRILLER \_\_\_\_\_

CA. Medlin, Jim Barker  
Charles Ayers

DEPTH	SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"			
0				0		
1	1.0'	1	1	2		yellowish BRN, slightly mica, silty fine sand
2	2.5'	1	3	3		yellowish BRN, slightly mica, silty fine sand
3	4.0'	2	4	6	5	Lt Grayish Red, slightly mica, silty clayey fine sand
4	5.5'	5	6	7		yellowish BRN, slightly mica, slightly clayey silty fine sand
5	7.0'	1	2	2	0	Lt Gray / yellowish BRN, very mica, fine sandy silt
6	8.5'	1	1	2		yellow, mica, silty fine / med. sand
7	10.0'	1	1	1		yellow / Lt yellowish BRN, mica, silty, fine / med. sand
8	11.5'	1	2	4	5	Reddish BRN / yellowish BRN, mica, silty fine / med. sand
9	13.0'	1	3	5		yellowish BRN, mica, silty fine / med. sand
10	15.0'	2	3	6	0	olive BRN / dark olive BRN, mica, silty fine / med. sand
11	16.5'	3	8	11		BRN / dark olive BRN, mica, silty fine / med. sand
12	18.0'	4	7	8		BRN / dark olive BRN, mica, silty fine / med. sand
	19.5'				5	Hole terminated @ 19.5' and set 2" well with 15' screen from 3.0' to 18.0' seal from 1.0' to 2.0'
					0	
					5	
					0	

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED 19.5'  
 BORING REFUSAL N/A  
 WATER TOB DEPTH 4.3' @ 10.0' ON 2-24-99  
 WATER 24 HR. DEPTH 4.3'  
 WATER LOSSES NONE USED  
 CASING SIZE N/A LENGTH N/A

METHOD OF ADVANCING BORING  
 POWER AUGER  
 HAND CHOP W/MUD/W/WATER  
 ROTARY DRILL W/MUD/W/WATER  
 DIAMOND CORE

DEPTH  
 0.0' TO 19.5'  
 - TO -  
 - TO -  
 - TO -

DUKE POWER COMPANY

PROJECT Greenville-Bramlette Road  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-11

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME \_\_\_\_\_

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 2-24-99 WEATHER Cloudy

INSPECTOR/DRILLER

C.A. Medlin, Jim Barker,  
Charles Ayers,

SAMPLING	SCALE			UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"		
1 1.0' 2.5'	2	3	4	0	yellowish BRN, mica, silty Fine/Med. SAND
2 2.5' 4.0'	1	3	4		yellowish BRN, mica, silty Fine/Med. SAND with odor
3 4.0' 5.5'	1	1	1	5	yellowish BRN, mica, silty Fine/Med. SAND
4 5.5' 7.0'	5	5	1		white / BRN, yellow mica, silty Fine/coarse SAND
5 7.0' 8.5'	5	5	1		yellowish BRN, mica, Fine sandy silt
6 8.5' 10.0'	1	1	1	10	yellow BRN, mica, silty Fine/coarse SAND mica
7 10.0' 12.2'	1	1	1		yellowish BRN/gray a very Fine sandy silt note: spoon went 0.7' to much on last Blow
8 12.2' 13.7'	1	3	3	15	white / gray slightly mica, silty Fine/coarse SAND
9 13.7' 15.2'	3	1	2		yellowish BRN/white mica, silty Fine/coarse SAND
10 15.2' 16.7'	3	3	3		yellowish BRN/white mica, silty Fine/coarse SAND
X 16.7' 18.2'	1	1	1	20	NO RECOVERY IN SPOON @ 16.7' w/ sand catch
11 18.2' 19.7'	1	1	1		lt. BRN, mica, silty Fine/Med. SAND
12 19.7' 21.2'	2	2	4	25	yellowish orange mica, silty Fine/Med. SAND
13 21.2' 22.7'	1	4	6		yellowish BRN, mica, silty Fine/Med. SAND
14 22.7' 24.2'	3	7	9		yellowish BRN, mica, silty Fine/coarse SAND
15 24.2' 25.7'	7	6	12	30	yellowish BRN, mica, silty Fine/coarse SAND
					Hole terminated @ 25.7'
					set a 2" Pipe with a 10.0' screen @ 14.0' to 24.0' w/ seal from 10.0'-13.0'
				35	
				40	

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE  
 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED 25.7'  
 BORING REFUSAL N/A  
 WATER TOB DEPTH 2.6'  
 WATER 24 HR:DEPTH 2.6'  
 WATER LOSSES NONE used  
 CASING SIZE N/A LENGTH N/A

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0.0' TO 25.7'
HAND CHOP: W/AUD: W/WATER	— TO —
ROTARY DRILL: W/AUD: W/WATER	— TO —
DIAMOND CORE	— TO —

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-12 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME Shallow well HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 2-25-99 WEATHER P. Cloudy INSPECTOR/DRILLER C.A. Medlin, Tim Barker

SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
1ST 6"	2ND 6"	3RD 6"			
			0		NO samples taken, Boring is only 5.0' from MW-11
			5		Drilled down to 12.0', set a 2" well pipe with a 10.0' screen from 1.5' to 11.5' seal from 0.5' to 1.0'
			0		
			5		
			0		
			5		
			0		
			5		
			0		
			5		
			0		
			5		
			0		
			5		
			0		
			5		
			0		

BORING TERMINATED	<u>12.0'</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL	<u>N/A</u>	POWER AUGER	<u>0.0' TO 12.0'</u>
WATER TOB DEPTH	<u>2.6'</u>	HAND CHOP W/MUD W/WATER	- TO -
WATER 24 HR:DEPTH	<u>2.6'</u>	ROTARY DRILL W/MUD W/WATER	- TO -
WATER LOSSES	<u>NONE used</u>	DIAMOND CORE	- TO -
CASING SIZE	<u>N/A</u>	LENGTH	<u>N/A</u>

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-13

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Mid Depth

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 3-17-99 WEATHER Clear-Hot INSPECTOR/DRILLER \_\_\_\_\_

CA. Medlin, Jim Barker

	SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"			
				0		
1	1.0'	2	1	2=12"		yellowish BRN, slightly mica, silty Fine/Med sand
	3.0'					
2	3.0'	1	1	= 1.5'		yellowish BRN, slightly mica, fine sandy silt
	5.1'					
3	5.1'	1	3	3	5	Top 6" WAS BRN, mica, silty fine sand Last 1.0' WAS yellowish BRN, fine sandy clayey silt
	6.6'					
4	6.6'	2	2	3		yellowish BRN, olive, slightly mica, fine sandy, silty clay
	8.1'					
5	8.1'	1	2	3	10	olive gray slightly mica, fine sandy, silty clay
	9.6'					
6	9.6'	2	2	2		Bluish gray slightly mica, silty very fine sandy clay
	11.1'					
7	11.1'	0	0	0		Wrist of Hammer Pushed span 1.5'
	12.6'					
8	12.6'	0	0	1	15	Bluish gray slightly mica, clayey very fine sandy silt Bluish gray mica, clayey fine sandy silt
	14.1'					
9	14.1'	0	2	2		yellowish BRN, mica, very silty fine sand
	15.6'					
10	15.6'	2	1	1	20	Whitish gray mica, very silty fine sand
	17.1'					
11	17.1'	1	1	2		yellowish BRN, gray mica, very silty fine/med sand
	18.6'					
12	18.6'	0	1	1		BRN/gray mica, silty fine/coarse sand
	20.1'					
13	20.1'	2	3	3	25	gray mica, silty fine/coarse sand
	21.6'					
14	21.6'	4	8	9		gray mica, silty fine/coarse sand looks like weathered rock
	23.1'					
					30	Hole terminated @ 23.1'
						Note: we set a 2" well with a 10.0' screen set from 11.5' to 21.5'
					35	
					40	

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED <u>23.1'</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL <u>N/A</u>	POWER AUGER	0.0' TO 23.1'
WATER TOB DEPTH _____	HAND CHOP-W/MUD-W/WATER	— TO —
WATER 24 HR:DEPTH <u>3.5' 3-18-99</u>	ROTARY DRILL-W/MUD-W/WATER	— TO —
WATER LOSSES <u>None used</u>	DIAMOND CORE	— TO —
CASING SIZE <u>N/A</u> LENGTH <u>N/A</u>		

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-14 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME Shallow well HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 3-18-99 WEATHER Clear Hot INSPECTOR/DRILLER C.A. Medlin, Jim Barker  
Joyce Holcombe

SCALE	SAMPLING			UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"		
0					No soil samples recovered in this boring Got samples from MW-13 approx 6.0' away.
5					Drilled down to 13.0' and set a 2" well with a 10.0' screen set from 2.0' to 12.0'
0					
5					
0					
5					
0					
5					
0					

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE  
 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED <u>13.0'</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL <u>N/A</u>	POWER AUGER	0.0' TO 13.0'
WATER TOB DEPTH _____	HAND CHOP-W/MUD-W/WATER	— TO —
WATER 24 HR:DEPTH <u>3.6'</u>	ROTARY DRILL-W/MUD-W/WATER	— TO —
WATER LOSSES <u>NONE</u>	DIAMOND CORE	— TO —
CASING SIZE <u>N/A</u> LENGTH <u>N/A</u>		

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd,  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-15 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME Deep well HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 3-2-99 WEATHER clear warm INSPECTOR/DRILLER CA. Medlin, Jim Barker

SCALE	UD	SAMPLING			SOIL CLASSIFICATION AND REMARKS
		1ST 6"	2ND 6"	3RD 6"	
0					
		1 1.0'	3 4	7	Strong BRN. / Red. Slightly mica, silty fine sand w/ some BRICK particles in sample
		2 2.5'	2 1	3	Very little sample, Augering up brick
		3 4.0'	1 2	2	BRN. slightly mica, silty fine sand
		4 5.5'	2 4	4	BRN. slightly mica, silty fine sand with wood, BRICK AND cloth in sample, very little sample recovery
		5 7.0'	1 3	4	wood, BRICKS, AND some more cloth, NO sample
		6 8.5'	3 1	12"	* wood, cloth AND A nail very little soil with it
		7 10.0'	3 2	2	olive <del>gray</del> / strong BRN, slightly mica, fine sandy, very silty clay
		8 11.5'	4 2	2	lt. blue gray slightly mica, silty fine sandy clay
		9 13.0'	3 3	4	NO Recovery in spoon with sand catcher
		10 15.0'	1 1	12"	yellowish BRN., slightly mica, silty fine sand
		11 16.5'	0 =	1.7'	strong BRN, gray mica, fine sandy silty clay
		12 18.2'	2 3	7	weight of hammer pushed spoon 1.7' (NO BLOWS)
		13 19.7'	3 5	6	yellowish BRN., very mica, fine sandy silt
		14 21.2'	2 3	4	Rusty BRN, mica, silty fine / coarse sand
		15 22.7'	2 4	4	Note: Looks like an old creek bed.
		16 24.2'	1 3	4	BRN., very mica, very silty fine sand
		17 25.7'			yellowish BRN, mica, very silty fine / coarse sand
					yellowish BRN., mica, silty fine / coarse sand
					Note: Had some cloth in sample
					Note: soil coming back up in Auger
					Couldn't get another spoon so we drilled down to Refusal @ 58.4' AND set well down to 55.0' with a 5.0' screen
					Note: After we pulled Auger water came up TO 7.6'

very wet ->

120 @ 10.7 ON 3-2-99

H<sub>2</sub>O @ 15.6 ON 3-2-99

3-4-99

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED <u>58.4'</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL <u>58.4' w/ 7 1/4" Auger</u>	POWER AUGER	0.0' TO 58.4'
WATER TOB DEPTH <u>10.7' overite</u>	HAND CHOP: W/MUD: W/WATER	- TO -
WATER 24 HR. DEPTH <u>7.2' ON 3-8-99</u>	ROTARY DRILL: W/MUD: W/WATER	- TO -
WATER LOSSES <u>NONE used</u>	DIAMOND CORE	- TO -
CASING SIZE <u>N/A</u> LENGTH <u>N/A</u>		



DUKE POWER COMPANY

PROJECT Greenville - Branlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-16 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME Shallow HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 3-8-99 WEATHER Clear INSPECTOR/DRILLER C.A. Medlin, Jim Barker

SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
1ST 6"	2ND 6"	3RD 6"			
			0		NO Soil Samples Required due to well being located 5.0' from MW-15
			5		Drilled down to 16.0' and set a 2" well with a 10.0' screen set from 5.0' - 15.0' with a seal @ 2.0' to 4.0'
			10		Note: Cuttings has a strong odor
			15		
			20		
			25		
			30		
			35		
			40		

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE  
 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED <u>16.0'</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL <u>N/A</u>	POWER AUGER	<u>0.0'</u> TO <u>6.0'</u>
WATER TOB DEPTH <u>7.2'</u>	HAND CHOP: W/MUD: W/WATER	- TO -
WATER 24 HR: DEPTH <u>7.6'</u>	ROTARY DRILL: W/MUD: W/WATER	- TO -
WATER LOSSES <u>None used</u>	DIAMOND CORE	- TO -
CASING SIZE <u>N/A</u> LENGTH <u>N/A</u>		

DUKE POWER COMPANY

PROJECT Greenville-Branckite  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-17 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME Mid Depth and shallow combined HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 3-16-99 WEATHER Clean INSPECTOR/DRILLER C.A. McInin Jim Barker  
Joyce Halcomb

	DEPTH	SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
		1ST 6"	2ND 6"	3RD 6"			
	0						
1	1.0'	4	4	25		Black slightly mica, silty fine/coarse sand	
	2.5'					Looks like coal, very strong odor	
2	2.5'	9	6	3		Black Rubber like tar, no soil,	
	4.0'						
3	4.0'	0	0	0	5	weight of Hammer Pushed spore 1.5'	
	5.5'					yellowish BRN, slightly mica, fine sandy, silty clay	
4	5.5'	0	0	0		Black coal tar looking stuff	
	7.0'					yellowish BRN, slightly mica, fine sandy silt	
5	7.0'	0	0	0	10	weight of Hammer Pushed spore 1.5'	
	8.5'					Black / Dark Gray slightly mica, fine sandy silt	
6	8.5'	0	0	0		Black silty fine sand w/ coal tar all in sample	
	10.0'						
7	10.0'	0	2	3		yellowish BRN, mica, silty fine sand	
	11.5'				15	Note: #7 was pure sand w/ strong odor	
8	11.5'	10	19	23		BRN mica, silty fine sand w/ strong odor	
	13.0'						
9	13.0'	11	34	22		BRN, mica, silty fine sand w/ strong odor	
	14.5'						
10	14.5'	7	17	9	20	yellowish BRN, v. mica, fine sandy silt w/ odor	
	16.0'						
11	16.0'	6	9	14		yellowish BRN, mica, silty fine/medium sand	
	17.5'					* still has a strong odor	
					25	Note: Set a 2" well with a screen from 1.6' to 15.5'	
					30		
					35		
					40		

BORING TERMINATED 16.0'  
 BORING REFUSAL NA  
 WATER TOB DEPTH \_\_\_\_\_  
 WATER 24 HR:DEPTH 2.6' 3-17-99  
 WATER LOSSES None used  
 CASING SIZE N/A LENGTH N/A

METHOD OF ADVANCING BORING  
 POWER AUGER 0.0' TO 6.0'  
 HAND CHOP:WMUD:WATER - TO -  
 ROTARY DRILL:WMUD:WATER - TO -  
 DIAMOND CORE - TO -

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-18 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME Mid Depth & Shallow Combined HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 3-22-99 WEATHER Clear/ Nice INSPECTOR/DRILLER C.A. Medlin, Jim Barker  
Joyce Holcombe

	SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"			
				0		
1	1.0'	3	3	2		Red mica, Fine/Med. sandy clayey silt
	2.5'					
2	2.5'	2	3	2		yellowish red mica, Fine sandy clayey silt
	4.0'					
3	4.0'	1	3	2	5	yellowish red mica, Fine sandy silt
	5.5'					
4	5.5'	3	3	2		yellowish red mica, Fine sandy silt, with
	7.0'					last 4" of sample being dark brn. top soil
5	7.0'	1	1	1	10	strong brn, slightly mica, very fine sandy silt
	8.5'					looks like top soil, had some small roots with
6	8.5'	0	0	2		Weight of Hammer Pushed down 1.0'
	10.0'					olive gray mica, very fine sandy silty clay
7	10.0'	1	2	1		olive gray mica, very fine sandy silt
	11.5'					w/ some wood particles in sample
8	11.5'	0	1	2	15	top 6" = olive gray mica, very fine sandy silt
	13.0'					last 10" = dark gray mica, silty fine sand
9	13.0'	1	1	1		gray mica, silty fine sand (fine sand)
	14.5'					
10	14.5'	2	3	1	20	gray mica, silty fine sand (fine sand)
	16.0'					
11	16.0'	2	5	6		gray mica, silty fine sand (fine sand)
	17.5'					
12	17.5'	4	6	4		gray mica, silty fine/med. sand
	19.0'					
13	19.0'	5	5	4	25	gray mica, silty fine/coarse sand
	20.5'					
14	20.5'	5	5	4		gray mica, silty fine/coarse sand
	22.0'					last 4" was dark gray very mica, very fine sandy silt
15	22.0'	3	4	3	30	gray mica, silty fine/coarse sand
	23.5'					last 6" was dark gray very mica, very fine sandy silt
16	23.5'	2	3	5		dark gray very mica, very fine sandy silt
	25.0'					
17	25.0'	8	12	19		dark gray very mica, very fine sandy silt
	26.5'				35	looks like weathered rock in parts of sample
						set a 2" wall with a 15.0' screen set
						from 9.5' to 24.5'
					40	note: checked water on 3-25-99 H <sub>2</sub> O @ 10.4'

Note: Samples 5-17 has  
 a sewer like odor (no coal tar odor)

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE  
 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED	<u>25.0'</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL	<u>N/A</u>	POWER AUGER	<u>0.0' TO 25.0'</u>
WATER TOB DEPTH	<u>N/A</u>	HAND CHOP: W/MUD: W/WATER	<u>- TO -</u>
WATER 24 HR. DEPTH	<u>13.0' 3-23-99</u>	ROTARY DRILL: W/MUD: W/WATER	<u>- TO -</u>
WATER LOSSES	<u>None Used</u>	DIAMOND CORE	<u>- TO -</u>
CASING SIZE	<u>N/A</u>	LENGTH	<u>N/A</u>

DUKE POWER COMPANY

PROJECT Greenville Bramlette Rd.  
SOIL TEST BORING FIELD REPORT

BORING NO. MW-19 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME Mid Depth well HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 3-23-99 WEATHER Clear warm INSPECTOR/DRILLER C.A. Medlin, Jim Barker  
Joyce Holcombe

SAMPLING	SCALE			UD	SOIL CLASSIFICATION AND REMARKS
	1ST F'	2ND F'	3RD F'		
				0	
1	1.0'	2	2	3	Yellowish Red, mica, silty fine/med. sand
	2.5'				
2	2.5'	1	8	8	Yellowish Red, mica, silty fine/med. sand w/ some wood particles in sample
	4.0'				
3	4.0'	7	2	1	BRN, mica, silty fine sand w/ trash in sample, wood, concrete, plastic particles
	5.5'				
4	5.5'	2	2	1	DARK BRN, Black shaly mica, silty fine/coarse sand, looks like topsoil from swamp.
	7.0'				
* 5	7.0'	1	1	1	olive, slightly mica, fine sandy clayey silt
	8.5'				
6	8.5'	0	0	0	CAN see coal tar in sample
	10.0'				
					weight of hammer pushed spoon 1.5'
7	10.0'	0	2	3	olive, slightly mica, fine sandy clayey silt
	11.5'				
8	11.5'	2	3	3	olive, slightly mica, fine sandy clayey silt
	13.0'				
9	13.0'	0	0	0	weight of hammer pushed pushed spoon 1.5'
	14.5'				
10	14.5'	3	4	5	BRN, mica, silty fine sand, loaded w/ coal tar
	16.0'				
X	16.0'				BRN, mica, silty fine/medium sand, w/ coal tar
				25	Note: we couldn't get spoon to go down to bottom of auger because of sand coming back up in auger. so we ran auger down to 19.0' using 5,000 LBS of down pressure (PSI)
				30	set 2" well w/ 10.0' screen set from 9.0' to 19.0'
				35	Note: this boring is one of the worst we've did @ Bramlette
				40	

Strong odor coal tar  
3-25-99

Loaded w/ coal tar

BORING TERMINATED	19.0'	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL	N/A	POWER AUGER	0.0' TO 19.0'
WATER TOB DEPTH	6.5' ON 3-25-99	HAND CHOP W/MUD W/WATER	- TO -
WATER 24 HR. DEPTH	6.5'	ROTARY DRILL W/MUD W/WATER	- TO -
WATER LOSSES	None used	DIAMOND CORE	- TO -
CASING SIZE	N/A	LENGTH	N/A

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-20

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Deep well

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 3-30-99 WEATHER Clear-Hot INSPECTOR/DRILLER

CA. Medlin, Jimm Barker  
Roaster Dickard

SCALE	SAMPLING			UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"		
0					
1	4.0'	4	6	5	Bricks and concrete, not much of a sample
5	5.5'	3	6	6	Reddish BRN, mica, silty fine/med. sand w/ some brick and wood particles in sample
	7.0'	6	4	3	Reddish BRN, mica, silty fine/coarse sand w/ tin, wood, concrete in sample
10	8.5'	8	12	7	NO soil, just wood in spoon
	10.0'				
	10.0'	6	2	3	NO Recovery in spoon w/ sand catcher
	11.5'				
15	11.5'	4	3	4	olive mica, fine sandy silty clay
	13.0'				
	13.0'	5	5	2	End of spoon had Gray very mica, v. fine sandy silt, also wood particles
	14.5'				
	14.5'	4	7	9	some wood particles, and Gray, mica, silty fine/med. sand
	16.0'				
20	16.0'	2	4	3	w/ COAL TAR all in sample (Pure sand)
	17.5'				
	17.5'	10	11	13	Gray mica, silty fine/med. sand (Pure sand)
	19.0'				
	19.0'	10	17	20	Loaded w/ COAL TAR
	20.5'				
25	20.5'	21	5D=2"		Gray mica, silty fine sandy unweathered Rock
	21.1'				
					* Note: set 8" pipe down to 19.0' and cracked it
					Auger. Cutting hard, we was able to run it down to 25.5' where it refused.
					NO Recovery in spoon w/ sand catcher
					We set a 2" well w/ a 5.0' screen set from 20.0' to 25.0'
30					
35					
40					

Signs of coal tar  
 Coal tar all in sample

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED 25.5'  
 BORING REFUSAL 25.5' - 7" Auger  
 WATER TOB DEPTH N/A  
 WATER 24 HR:DEPTH 8.1'  
 WATER LOSSES none used  
 CASING SIZE N/A LENGTH N/A

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0.0' TO 25.5'
HAND CHOP W/MUD:W/WATER	- TO -
ROTARY DRILL W/MUD:W/WATER	- TO -
DIAMOND CORE	- TO -

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-21

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Mid Depth & Shallow combined

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 3-29-99 WEATHER cloudy w/ INSPECTOR/DRILLER \_\_\_\_\_

C.A. Medlin, Jim Barker  
Rooster Dickard

SCALE	UD	SAMPLING			SOIL CLASSIFICATION AND REMARKS	
		1ST 6"	2ND 6"	3RD 6"		
0					Note: Hitting trash concrete, Bricks down to 3.0'	
1		3.0'	2	2	1	Reddish BRN, mica, silty fine/med. sand w/ some concrete particles in sample
2		4.5'	1	2	6	Reddish BRN, mica, silty fine sand w/ wood and concrete and pavement in samples
3		6.0'	2	3	6	Very little soil had plywood bag in spoon shoe
4		7.5'	8	14	3	sheet rock and rags, not much soil
5		9.0'	2	21	4	strong BRN, mica, silty fine sand w/ some more sheet rock not much soil
6		10.5'	2	3	2	1 - small rock in spoon
7		12.0'	1	1	1	strong BRN, mica, fine sandy silt
8		13.5'	2	4	2	strong BRN, very mica, fine sandy silt has odor, not real strong
9		15.0'	2	8	15	grayish BRN, mica, silty fine/coarse sand weathered rock in end of spoon
10		16.5'	7	18	50-3	grayish BRN, mica, silty fine/coarse sand weathered rock in end of spoon - down pressure = 900 PSI
120		17.7'				Augered on down to Refusal @ 18.0' and set a 2" well w/ a 13.0' screen set from 5.0' to 18.0'
25						Note: Auger had coal tar on them when pulled and odor was strong.
30						
35						
40						
45						
50						
55						
60						
65						
70						
75						
80						
85						
90						

has an odor coal tar →

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED	<u>18.0'</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL	<u>18.0' w/ 7 1/4" Auger</u>	POWER AUGER	<u>0.0' TO 0.0'</u>
WATER TOB DEPTH	<u>8.2' 3-29-99</u>	HAND CHOP W/MUD/W/WATER	— TO —
WATER 24 HR:DEPTH	<u>9.6' 3-30-99</u>	ROTARY DRILL W/MUD/W/WATER	— TO —
WATER LOSSES	<u>NONE used</u>	DIAMOND CORE	— TO —
CASING SIZE	<u>N/A</u> LENGTH <u>N/A</u>		

DUKE POWER COMPANY

PROJECT Greenville - Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-22

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Mid Depth well

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 4-6-99 WEATHER cloudy

INSPECTOR/DRILLER C.A. Madlin, Jim Barker

DEPTH	SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
	1ST F'	2ND F'	3RD F'			
1	1.0'	3	4	5	0	Reddish BRN, mica, Fine/Medi. sandy silt
2	2.5'	4	6	7		Reddish Red, mica, Fine sandy silt
3	4.0'	3	2	3	5	BRNish Red, mica, Fine sandy silt
4	5.5'	1	2	1		Red, Very mica, Very Fine sandy silt
5	7.0'	0	1	2	10	Red, mica, Fine sandy silt ↳ Weigh of Hammer Pushed spoon 6" ↳ Last 2" was Dark Swamp soil (topsoil)
6	8.5'	2	2	2		strong Gray, mica, Very Fine sandy silt
7	10.0'	0	0	2		Dark Gray, Very mica, Very Fine sandy silt w/ small roots ↳ Weigh of Hammer Pushed spoon 1.0' ↳ Last 2" was Fine creek sand (Fine)
8	11.5'	2	2	1	15	Gray, mica, Very silty, Fine sand w/ roots All in sample
9	13.0'	1	2	3		Dark Gray, mica, Very silty, Fine sand w/ trash All in sample Leaves, roots etc.
10	14.5'	2	3	3	20	Dark Gray, mica, Very silty, Fine sand
11	16.0'	1	2	3		NO Recovery in spoon w/ sand catcher
12	17.5'	3	3	3		Light Gray, mica, silty, Fine sand
13	19.0'	1	1	2	25	Dark Gray, mica, silty, Fine sand ↳ Last 6" was yellowish BRN, mica, Fine sandy silt
14	20.5'	3	6	6		Yellowish BRN, mica, Fine sandy silt
15	22.0'	4	6	6	30	Yellowish BRN, mica, Fine sandy silt
16	23.5'	2	3	3		Yellowish BRN, mica, Fine sandy silt
17	25.0'	4	5	6		Yellowish BRN, mica, Fine sandy silt
18	27.5'	2	4	4	35	Yellowish BRN, v. mica, Fine sandy silt
19	29.0'	3	4	5		Yellowish BRN, v. mica, Very silty, Fine sand
20	30.5'	2	4	6	40	Yellowish BRN, v. mica, Very silty - Fine sand
21	32.0'					

4-7-99

BORING TERMINATED	<u>36.5'</u>
BORING REFUSAL	<u>N/A</u>
WATER TOB DEPTH	<u>16.2'</u>
WATER 24 HR:DEPTH	<u>10.1'</u>
WATER LOSSES	<u>None used</u>
CASING SIZE	<u>N/A</u> LENGTH <u>N/A</u>

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0.0' TO 36.5'
HAND CHOP-W/MUD-W/WATER	- TO -
ROTARY-DRILL-W/MUD-W/WATER	- TO -
DIAMOND CORE	- TO -

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE  
 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

DUKE POWER COMPANY

PROJECT Greenville Braunkette Rd.  
SOIL TEST BORING FIELD REPORT

BORING NO. MW-22

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Mid Depth well

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 4-7-99

WEATHER Clear Hot

INSPECTOR/DRILLER \_\_\_\_\_

C.A. Mullins, Jim Barker

	SAMPLING			NOT TO SCALE	UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"			
20	32.0'	4	6	6	40	yellowish BRN, mica, very silty fine/coarse sand
	33.5'					
21	33.5'	3	4	6		yellowish BRN, mica, very silty fine sand
	35.0'					
22	35.0'	12	16	19	5	DARK BRN, mica, silty fine/coarse sand, weathered rock
	36.5'					
					0	set a 2" well with 10' screen set from 25.0' to 35.0'
					5	
					0	
					5	
					0	
					5	
					0	
					5	
					0	

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED 36.5'

BORING REFUSAL N/A

WATER TOB DEPTH 16.2'

WATER 24 HR:DEPTH \_\_\_\_\_

WATER LOSSES None used

CASING SIZE N/A LENGTH N/A

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0.0' TO 36.5'
HAND CROP W/MUD/W/WATER	— TO —
ROTARY DRILL W/MUD/W/WATER	— TO —
DIAMOND CORE	— TO —



DUKE POWER COMPANY

PROJECT Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-23

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Middepth well

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 4-27-99

WEATHER Cloudy/wet

INSPECTOR/DRILLER

CA Mallin, Jim Barker  
Joyce Holcomb

SAMPLING	SAMPLING			UD	SOIL CLASSIFICATION AND REMARKS	
	1ST 6"	2ND 6"	3RD 6"			
1	1.0'	2	1	2	0	strong BRN, slightly mica, fine sandy silt
	2.5'					clayey silt
2	2.5'	1 = 12"		1		Dark Grayish BRN slightly mica, very fine sandy clayey silt
	4.0'					
3	4.0'	1	1 = 12"		5	Dark Gray very mica, <sup>very</sup> fine sandy silt
	5.5'					
4	5.5'	1	1	1		Dark Gray very mica, very fine sandy silt
	7.0'					
5	7.0'	2	5	7		1st 12" was dark gray, very mica, very fine sandy silt
	8.5'					last 6" was yellow, mica, silty fine/med. sand
6	8.5'	1	2	3	0	yellow, mica, silty fine/med. sand
	10.0'					
7	10.0'	3	1	1		yellowish BRN, mica, silty fine/med. sand
	11.5'					
8	11.5'	1	1	2	5	1st 12" was yellowish BRN, mica, silty fine/med. sand
	13.0'					last 6" was yellow very mica, very fine sandy silt
9	13.0'	1	1	2		yellowish BRN, very mica, very silty fine/med. sand
	14.5'					
10	14.5'	1	2	4		yellowish BRN, very mica, very fine sandy silt
	16.0'					
11	16.0'	2	2	2	0	yellowish BRN, very mica, silty fine/med. sand
	17.5'					
12	17.5'	3	4	3		yellowish BRN, very mica, very silty fine/coarse sand
	19.0'					
13	19.0'	2	2	3	5	lt. BRN, very mica, very silty fine/coarse sand
	20.5'					
14	20.5'	1	2	2		yellowish BRN, very mica, very silty fine sand
	22.0'					
15	22.0'	1	2	4		yellowish BRN, very mica, very silty fine sand
	23.5'					
16	23.5'	1	2	3	0	yellowish BRN, very mica, very silty fine sand
	25.0'					
17	25.0'	2	3	8		yellowish BRN, very mica, very silty fine sand
	26.5'					
18	26.5'	2	2	4	5	yellowish BRN, very mica, very silty fine sand
	28.0'					
19	28.0'	2	3	5		yellowish BRN, very mica, very silty fine sand
	29.5'					
20	29.5'	2	3	6		yellowish BRN, very mica, very silty fine sand
	31.0'					

4-28-99

BORING TERMINATED	<u>43.0'</u>
BORING REFUSAL	<u>N/A</u>
WATER TOB DEPTH	<u>0.7'</u>
WATER 24 HR:DEPTH	<u>0.7'</u>
WATER LOSSES	<u>NONE USED</u>
CASING SIZE	<u>N/A</u> LENGTH <u>N/A</u>

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0.0' TO 43.0'
HAND CHOP:W/MUD:W/WATER	- TO -
ROTARY DRILL:W/MUD:W/WATER	- TO -
DIAMOND CORE	- TO -

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

DUKE POWER COMPANY

PROJECT Bramlette Rd.  
SOIL TEST BORING FIELD REPORT

BORING NO. MW-23

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Middepth Well

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 4-28-99 WEATHER Cloudy Cold

INSPECTOR/DRILLER

C.A. Medlin, Jim Barker  
Joyce Holcombe

DEPTH	SAMPLING			NOT TO SCALE	UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"			
21	31.0'	3	3	6	0	BRN, Very mica, Very Fine sandy silt
	32.5'					
22	32.5'	2	4	6		BRN, Very mica, Very Fine sandy silt
	34.0'					
23	34.0'	3	3	5	5	BRN, Very mica, Very Fine sandy silt
	35.5'					
24	35.5'	2	3	5		BRN, Very mica, Very Fine sandy silt
	37.0'					
25	37.0'	2	4	5		BRN, Very mica, Very Fine sandy silt
	38.5'					
26	38.5'	2	3	4	0	BRN, Very mica, Very Fine sandy silt
	40.0'					
27	40.0'	3	5	8		BRN, Very mica, Very Fine sandy silt
	41.5'					
28	41.5'	3	5	8	5	BRN, Very mica, Very Fine sandy silt
	43.0'					
29	43.0'	4	6	9		BRN, Very mica, Very Fine sandy silt
	44.5'					
					0	Set A 2" well with a 10.0' screen set from 32.5' to 42.5'
					5	Note: This Boring is clean of AT least no odor notice.

5-3-99

BORING TERMINATED 43.0'  
 BORING REFUSAL N/A  
 WATER TOB DEPTH 0.7'  
 WATER 24 HR:DEPTH 0.7'  
 WATER LOSSES None used  
 CASING SIZE N/A LENGTH N/A

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	20' TO 30'
HAND CHOP W/ WATER	- TO -
ROTARY DRILL W/ WATER	- TO -
DIAMOND CORE	- TO -

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

DUKE POWER COMPANY

PROJECT Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-24

STARTING TIME \_\_\_\_\_

JOB NO. \_\_\_\_\_

GROUND SURFACE ELEV. \_\_\_\_\_

JOB NAME Shallow well

HRS. DRILLING \_\_\_\_\_

HRS. MOVING \_\_\_\_\_

DATE 5-3-99 WEATHER Clear nice INSPECTOR/DRILLER \_\_\_\_\_

CA. Madlin, Jim Barker

SAMPLING			SCALE	UD	SOIL CLASSIFICATION AND REMARKS
1ST 6"	2ND 6"	3RD 6"			
			0		NO soil samples taken from this Boring, All samples taken in MW-23 approx. 5.0' away
			5		Drilled down to 11.0' and set a 2" well with a 10.0' screen
			10		
			15		
			20		
			25		
			30		
			35		
			40		

+ STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED	<u>11.0'</u>
BORING REFUSAL	<u>N/A</u>
WATER TOB DEPTH	<u>0.7'</u>
WATER 24 HR. DEPTH	<u>0.9'</u>
WATER LOSSES	<u>NONE used</u>
CASING SIZE	<u>N/A</u> LENGTH <u>N/A</u>

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0.0' TO 11.0'
HAND CHOP. W/MUD. W/WATER	— TO —
ROTARY DRILL. W/MUD. W/WATER	— TO —
DIAMOND CORE	— TO —

DUKE POWER COMPANY

PROJECT Bramlette Rd.  
**SOIL TEST BORING FIELD REPORT**

BORING NO. MW-25 STARTING TIME \_\_\_\_\_  
 JOB NO. \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
 JOB NAME \_\_\_\_\_ HRS. DRILLING \_\_\_\_\_ HRS. MOVING \_\_\_\_\_  
 DATE 5-4-99 WEATHER Clear Hot INSPECTOR/DRILLER CA. Medlin, Jim Barker

DEPTH	SAMPLING			UD	SOIL CLASSIFICATION AND REMARKS
	1ST 6"	2ND 6"	3RD 6"		
0					VERY SOFT
1	1.0'	1	1	1=1.9'	1.0' Yellowish BRN, mica, silty fine/med. sand Last 1.9' = DARK GRAY mica, very fine sandy silt
2	3.9'	0			Weight of Hammer pushed approx 1.5'
3	5.4'	0		5	DARK GRAY mica, very fine sandy clayey silt Weight of Hammer pushed approx 1.5'
4	6.9'	0=1.0'	2		DARK GRAY mica, very fine sandy silty clay DARK GRAY mica, very fine sandy silty clay
5	8.4'	1	2	1	
6	9.9'	2	2	3	
7	11.4'	3	3	4	
8	12.9'	5	8	6	
9	14.4'	6	6	8	
10	15.9'	12	50=4"		
	16.7'			0	
					Set A 2" well with a 15.0' screen set from 1.0' to 16.0'
				5	
				0	
				5	
				0	

\* STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE  
 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES

BORING TERMINATED <u>16.7</u>	METHOD OF ADVANCING BORING	DEPTH
BORING REFUSAL <u>N/A</u>	<u>POWER AUGER</u>	<u>0.0' TO 6.7'</u>
WATER TOB DEPTH <u>1.5' overnight - 5-5-99</u>	HAND CHOP W/MUD/W/WATER	— TO —
WATER 24 HR:DEPTH <u>1.5'</u>	ROTARY DRILL W/MUD/W/WATER	— TO —
WATER LOSSES <u>NONE USED</u>	DIAMOND CORE	— TO —
CASING SIZE <u>N/A</u> LENGTH <u>N/A</u>		



Water Well Record
Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Oconee System Name: Bramlette MBP site

Latitude: Longitude:

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

2. CUTTING SAMPLES: Yes No

Geophysical Logs: Yes (please enclose) No

Table with 3 columns: Formation Description, Thickness of Stratum, Depth to Bottom of Stratum. Includes handwritten note: 'see Attached soil Test Boring field Report for MW-25'

\*Indicate Water Bearing Zones

(Use a 2nd sheet if needed)

3. REMARKS:

There is a Bentonite Seal From 0.5' to 0.8'

4. OWNER OF WELL: Duke Power Co. Address: 422 south church st. Charlotte, N.C. 28242

Telephone No.: Engineer: Mark McGary Address: Telephone No.: 704-373-7898

5. WELL DEPTH (completed) Date Started: 5-4-99 Date Completed: 5-5-99

6. Mud Rotary Jettied Bored Dug Air Rotary Driven Cable tool Other Auger

7. USE: Domestic Public Supply-Permit No. Industry Irrigation Air Conditioning Commercial Test Well Monitor Well

8. CASING: Threaded Welded Diam.: 2" Height: Above/Below Surface 0.0' ft. Weight 54.40 lb./ft. Drive Shoe? Yes No

9. SCREEN Type: P.V.C. Diam.: 2" Slot/Gauge: .010 Length: 15.0' Set Between: 1.0' ft. and 16.0' ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET

10. STATIC WATER LEVEL 1.5' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface. N/A ft. after N/A hrs. Pumping N/A G.P.M. Pumping Test: Yes (please enclose) No Yield: N/A

12. WATER QUALITY Chemical Analysis Yes No Bacterial Analysis Yes No Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) Yes No Installed from 0.8' ft. to 16.7' ft. Effective size .018 Uniformity Coefficient 1.56

14. WELL GROUTED? Yes No Neat Cement Sand Cement Concrete Other Depth: From 0.0' ft. to 0.5' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A ft. N/A direction N/A Type well disinfected Yes Type: N/A upon completion No Amount: N/A

16. PUMP: Date installed: N/A Not installed Mr. Name: N/A Model No.: N/A H.P. N/A Volts N/A Length of drop pipe ft. Capacity gpm TYPE: Submersible Jet (shallow) Turbine Jet (deep) Reciprocating Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief. Registered Business Name: Duke Engineering & Ser Date: 5/10/99 Address: Box 219, Seneca SC 29679 Signed: Charles A. Mullins Cert. No.: 775

# SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Ground Water Protection Division

2600 Bull Street

Columbia, S.C. 29201

(803) 774-5331

Water Well Record

### 1. LOCATION OF WELL

County: Oconee System Name: Bramlette MGP Site  
 Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Distance And Direction from Road Intersections: \_\_\_\_\_  
 Street address & City of Well Location: \_\_\_\_\_  
 Sketch Map: (See example on back)

4. OWNER OF WELL: Duke Power Co.  
 Address: 422 South Church St. Charlotte, N.C. 28242  
 Telephone No.: \_\_\_\_\_  
 Engineer: Mark McGary  
 Address: \_\_\_\_\_  
 Telephone No.: 704-373-7898  
 5. WELL DEPTH (Completed) 11.0' Date Started: 5-03-99  
 Date Completed: 5-03-99  
 6.  Mud Rotary  Jetted  Bored  Dug  
 Air Rotary  Driven  Cable tool  Other Augering  
 7. USE:  Domestic  Public Supply-Permit No. \_\_\_\_\_  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well  Monitoring Well  
 8. CASING:  Threaded  Welded  
 Diam. 2" Height: Above/Below  
 Type:  PVC  Galvanized Surface: 0.0' ft.  
 Steel  Other Weight: sch 40 lbs./ft.  
0.0' in. to 0.4' ft. depth Drive Shoe?  Yes  No  
 \_\_\_\_\_ in. to \_\_\_\_\_ ft. depth

2. CUTTING SAMPLES  Yes  No  
 Geophysical Logs  Yes (Please enclose)  No

9. SCREEN:  
 Type: PVC Diam. 2"  
 Slot/Gauze: .010 Length: 10.0'  
 Set Between 0.4' ft. and 10.4' ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET  
 \_\_\_\_\_ ft. and \_\_\_\_\_ ft.  
 Sieve Analysis  Yes (Please enclose)  No

FORMATION DESCRIPTION	THICKNESS OF STRATA	DEPTH TO BOTTOM OF STRATA
See Attached Soil Test Boring field Report for MW-24		

10. STATIC WATER LEVEL  
0.9' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface  
N/A ft. after N/A hrs. pumping N/A G.P.M.  
 Pumping Test:  Yes (Please enclose)  No  
 Yield N/A

12. WATER QUALITY  
 Chemical Analysis  Yes  No Bacterial Analysis  Yes  No  
 Please Enclose Lab Results.

13. ARTIFICIAL FILTER (Gravel Pack)  Yes  No  
 Installed from 0.2' ft. to 11.0' ft.  
 Effective size .018 uniformity coefficient 1.56

14. WELL GROUTED?  Yes  No  
 Neat Cement  Sand Cement  Concrete  Other   
 Depth From N/A ft. to N/A ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A Feet N/A Direction  
N/A Type Well disinfected  Yes  No Type N/A  
 upon completion  No Amount N/A

16. PUMP: Date Installed N/A not installed   
 Mfr. name N/A model no. N/A  
 H.P. N/A volts N/A length of drop pipe N/A ft. capacity N/A gpm  
 TYPE:  Submersible  Jet (shallow)  Turbine  
 Jet (deep)  Reciprocating  Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION  
 and this report is true to the best of my knowledge and belief.  
 REGISTERED BUSINESS NAME: Charles A. Miller  
 Signed: Charles A. Miller  
 AUTHORIZED REPRESENTATIVE

\* Indicate water bearing zones (use a 2nd sheet if needed)  
There's a Bentonite seal from 0.1' to 0.2'



# Water Well Record

## Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

**1. LOCATION OF WELL:**

County: Greenville System Name: Bramlette MGP site

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Distance and Direction from Road Intersections: \_\_\_\_\_

Street Address & City of Well Location: \_\_\_\_\_

Sketch Map: \_\_\_\_\_

**2. CUTTING SAMPLES:**  Yes  No

Geophysical Logs:  Yes (please enclose)  No

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
See Attached Soil Test Boring field Report for MW-23		

**3. REMARKS:**  
There is a Bentonite seal from 25.0' to 30.0'

**4. OWNER OF WELL:** Duke Power Co.  
Address: 422 South church st. Charlotte, NC. 28242  
Telephone No.: \_\_\_\_\_

Engineer: Mark McGary  
Address: \_\_\_\_\_  
Telephone No.: 704-373-7898

**5. WELL DEPTH (completed)** \_\_\_\_\_ ft. Date Started: 4-27-99  
Date Completed: 5-03-99

**6.**  Mud Rotary  Jetted  Bored  Dug  
 Air Rotary  Driven  Cable tool  Other Auger

**7. USE:**  
 Domestic  Public Supply-Permit No. \_\_\_\_\_  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well  Monitor Well  \_\_\_\_\_

**8. CASING:**  Threaded  Welded  
Diam.: 2" Height: Above/Below Surface 2.5' ft.  
Type:  PVC  Galvanized  Steel  Other  
0 in. to 32.5 ft. depth Weight Sch. 40 lb./ft.  
   in. to    ft. depth Drive Shoe?  Yes  No

**9. SCREEN**  
Type: PVC Diam.: 2"  
Slot/Gauge: .010 Length: 10.0'  
Set Between: 32.5' ft. and 42.5' ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET  
Sieve Analysis  Yes (please enclose)  No

**10. STATIC WATER LEVEL** \_\_\_\_\_ ft. below land surface after 24 hours

**11. PUMPING LEVEL Below Land Surface.**  
N/A ft. after N/A hrs. Pumping N/A G.P.M.  
Pumping Test:  Yes (please enclose)  No  
Yield: N/A

**12. WATER QUALITY**  
Chemical Analysis  Yes  No Bacterial Analysis  Yes  No  
Please enclose lab results.

**13. ARTIFICIAL FILTER (gravel pack)**  Yes  No  
Installed from 30.0' ft. to 43.0' ft.  
Effective size .018 Uniformity Coefficient 1.56

**14. WELL GROUTED?**  Yes  No  
 Neat Cement  Sand Cement  Concrete  Other \_\_\_\_\_  
Depth: From 0.0' ft. to 25.0' ft.

**15. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** N/A ft. N/A direction  
N/A Type well disinfected  Yes Type: N/A  
upon completion  No Amount: N/A

**16. PUMP:** Date installed: N/A Not installed   
Mfr. Name: N/A Model No.: N/A  
H.P. N/A Volts N/A Length of drop pipe N/A ft. Capacity N/A gpm  
TYPE:  Submersible  Jet (shallow)  Turbine  
 Jet (deep)  Reciprocating  Centrifugal

**17. WATER WELL CONTRACTOR'S CERTIFICATION:** This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Registered Business Name: Duke Engineering & Ser. Date 5/10/99  
Address: BOX 219, SENECA, SC, 29679  
Signed: Charles A. Madala Cert. No.: 775  
Authorized Representative



# Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

### 1. LOCATION OF WELL:

County: Greenville System Name: Bramlette MGP site

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Distance and Direction from Road Intersections: \_\_\_\_\_

Street Address & City of Well Location: \_\_\_\_\_

Sketch Map: \_\_\_\_\_

2. CUTTING SAMPLES:  Yes  No

Geophysical Logs:  Yes (please enclose)  No

4. OWNER OF WELL: Duke Power Co.  
Address: 422 South Church St.  
Charlotte, N.C. 28242

Telephone No.: \_\_\_\_\_  
Engineer: Mark McGary  
Address: \_\_\_\_\_

Telephone No.: 704-373-7898

5. WELL DEPTH (completed) Date Started: 4-6-99

36.5' ft. Date Completed: 4-7-99

6.  Mud Rotary  Jettied  Bored  Dug  
 Air Rotary  Driven  Cable tool  Other Auger

7. USE:  
 Domestic  Public Supply-Permit No. \_\_\_\_\_  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well  Monitor Well

8. CASING:  Threaded  Welded  
Diam.: 2"  
Type:  PVC  Galvanized  
 Steel  Other  
0.0' in. to 25.0' ft. depth  
\_\_\_\_\_ in. to \_\_\_\_\_ ft. depth  
Height: Above/Below  
Surface 0.0' ft.  
Weight N/A Sch 40 lb./ft.  
Drive Shoe?  Yes  No

9. SCREEN  
Type: PVC Diam.: 2"  
Slot/Gauge: .010 Length: 10.0'  
Set Between: 25.0' ft. and 35.0' ft. NOTE: MULTIPLE SCREENS  
USE SECOND SHEET  
Sieve Analysis  Yes (please enclose)  No

10. STATIC WATER LEVEL  
10.1' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.  
N/A ft. after N/A hrs. Pumping N/A G.P.M.  
Pumping Test:  Yes (please enclose)  No  
Yield: N/A

12. WATER QUALITY  
Chemical Analysis  Yes  No Bacterial Analysis  Yes  No  
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack)  Yes  No  
Installed from 23.0' ft. to 36.5' ft.  
Effective size .018 Uniformity Coefficient 1.56

14. WELL GROUTED?  Yes  No  
 Neat Cement  Sand Cement  Concrete  Other \_\_\_\_\_  
Depth: From 0.0' ft. to 20.0' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A ft. N/A direction  
N/A Type well disinfected  Yes Type: N/A  
upon completion  No Amount: N/A

16. PUMP: Date installed: N/A Not installed   
Mfr. Name: N/A Model No.: N/A  
H.P. N/A Volts N/A Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ gpm  
TYPE:  Submersible  Jet (shallow)  Turbine  
 Jet (deep)  Reciprocating  Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under  
my direction and this report is true to the best of my knowledge and belief.  
Registered Business Name: Duke Engineering & Ser. Date: 5/10/99  
Address: Box 219, Seneca, S.C. 29679  
Signed: Charles A. Medlin Cert. No.: 775  
Authorized Representative

\*Indicate Water Bearing Zones

(Use a 2nd sheet if needed)

### 3. REMARKS:

Note: There is a Bentonite seal  
From 20.0' TO 23.0'





Water Well Record
Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Greenville System Name: Bramlette MGP site

Latitude: Longitude:

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

2. CUTTING SAMPLES: [X] Yes [ ] No

Geophysical Logs: [ ] Yes (please enclose) [X] No

Table with 3 columns: Formation Description, Thickness of Stratum, Depth to Bottom of Stratum. Handwritten entry: 'See Attached Soil Test Boring field Report for MW-21'.

\*Indicate Water Bearing Zones

(Use a 2nd sheet if needed)

3. REMARKS:

A Bentonite Seal is in place from 2.0' to 4.0'

4. OWNER OF WELL: Duke Power Co. Address: 422 south church st. Charlotte, N.C. 28242

Telephone No.: Engineer: Mark McGary Address:

Telephone No.: 704-373-7898

5. WELL DEPTH (completed) 18.0' ft. Date Started: 3-29-99 Date Completed: 3-29-99

6. [ ] Mud Rotary [ ] Jetted [ ] Bored [ ] Dug [ ] Air Rotary [ ] Driven [ ] Cable tool [X] Other Auger

7. USE: [ ] Domestic [ ] Public Supply-Permit No. [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [ ] Test Well [X] Monitor Well

8. CASING: [X] Threaded [ ] Welded Diam.: 2" Height: Above/Below Surface 2.5' ft. Type: [X] PVC [ ] Galvanized Weight N/A Sch 40 lb./ft. [ ] Steel [ ] Other Drive Shoe? [ ] Yes [X] No [ ] 0.0' in. to 5.0' ft. depth [ ] in. to ft. depth

9. SCREEN Type: PVC Diam.: 2" Slot/Gauge: .010 Length: 13.0' Set Between: 5.0' ft. and 18.0' ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET Sieve Analysis [ ] Yes (please enclose) [X] No

10. STATIC WATER LEVEL 9.6' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface. N/A ft. after N/A hrs. Pumping N/A G.P.M. Pumping Test: [ ] Yes (please enclose) [X] No Yield: N/A

12. WATER QUALITY Chemical Analysis [ ] Yes [X] No Bacterial Analysis [ ] Yes [X] No Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) [X] Yes [ ] No Installed from 4.0' ft. to 18.0' ft. Effective size .018 Uniformity Coefficient 1.56

14. WELL GROUTED? [X] Yes [ ] No [ ] Neat Cement [ ] Sand Cement [ ] Concrete [ ] Other Depth: From 0.0' ft. to 2.0' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A ft. N/A direction N/A Type well disinfected [ ] Yes Type: N/A upon completion [X] No Amount: N/A

16. PUMP: Date installed: N/A Not installed [X] Mfr. Name: N/A Model No.: N/A H.P. N/A volts N/A Length of drop pipe ft. Capacity gpm TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine [ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief. Registered Business Name: Duke Engineers Inc Date: 5/10/99 Address: Box 219, Seneca, SC, 29679 Signed: Charles A. Medlin Cert. No.: 275



### Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

<b>1. LOCATION OF WELL:</b> County: <u>Greenville</u> System Name: <u>Bramlette MGP site</u> Latitude: _____ Longitude: _____ Distance and Direction from Road Intersections: _____ Street Address & City of Well Location: _____ Sketch Map: _____			<b>4. OWNER OF WELL:</b> <u>Duke Power Co.</u> Address: <u>422 South Church St.</u> <u>Charlotte, NC, 28242</u> Telephone No.: _____ Engineer: <u>Mark McGary</u> Address: _____ Telephone No.: <u>704-373-7898</u>																																																					
<b>2. CUTTING SAMPLES:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Geophysical Logs: <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No			<b>5. WELL DEPTH (completed)</b> _____ ft. Date Started: <u>3-30-99</u> <b>6.</b> <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/> Dug <input type="checkbox"/> Air Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Cable tool <input checked="" type="checkbox"/> Other <u>Auger</u> <b>7. USE:</b> <input type="checkbox"/> Domestic <input type="checkbox"/> Public Supply-Permit No. _____ <input type="checkbox"/> Industry <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Commercial <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Monitor Well																																																					
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<b>9. SCREEN</b> Type: <u>PVC</u> Diam.: <u>2"</u> Slot/Gauge: <u>.010</u> Length: <u>5.0'</u> Set Between: <u>20.0'</u> ft. and <u>25.0'</u> ft. <b>NOTE: MULTIPLE SCREENS USE SECOND SHEET</b> Sieve Analysis <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No			<b>10. STATIC WATER LEVEL</b> _____ ft. below land surface after 24 hours <u>8.1'</u>																																																					
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<b>13. ARTIFICIAL FILTER (gravel pack)</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Installed from <u>19.5'</u> ft. to <u>25.5'</u> ft. Effective size <u>.018</u> Uniformity Coefficient <u>1.56</u>			<b>14. WELL GROUTED?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Sand Cement <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____ Depth: From <u>0.0'</u> ft. to <u>15.0'</u> ft.																																																					
<b>15. NEAREST SOURCE OF POSSIBLE CONTAMINATION:</b> <u>N/A</u> ft. <u>N/A</u> direction <u>N/A</u> Type well disinfected <input type="checkbox"/> Yes Type: <u>N/A</u> upon completion <input type="checkbox"/> No Amount: <u>N/A</u>			<b>16. PUMP:</b> Date installed: <u>N/A</u> Not installed <input checked="" type="checkbox"/> Mfr. Name: <u>N/A</u> Model No.: <u>N/A</u> H.P. <u>N/A</u> Volts <u>N/A</u> Length of drop pipe _____ ft. Capacity _____ gpm TYPE: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet (shallow) <input type="checkbox"/> Turbine <input type="checkbox"/> Jet (deep) <input type="checkbox"/> Reciprocating <input type="checkbox"/> Centrifugal																																																					
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<b>3. REMARKS:</b> <u>A Bentonite seal is in place</u> <u>From 15.0' to 19.5'</u>																																																								



Water Well Record
Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Greenville System Name: Bramlette MGP Site

Latitude: Longitude:

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

2. CUTTING SAMPLES: [X] Yes [ ] No

Geophysical Logs: [ ] Yes (please enclose) [X] No

4. OWNER OF WELL: Duke Power Co.
Address: 422 South Church St. Charlotte, NC 28242
Telephone No.:

Engineer: MARK McGary
Address:

Telephone No.: 704-373-7898

5. WELL DEPTH (completed) Date Started: 3-23-99
19.0' ft. Date Completed: 3-25-99

6. [ ] Mud Rotary [ ] Jetted [ ] Bored [ ] Dug
[ ] Air Rotary [ ] Driven [ ] Cable tool [X] Other Auger

7. USE:
[ ] Domestic [ ] Public Supply-Permit No. [ ] Industry
[ ] Irrigation [ ] Air Conditioning [ ] Commercial
[ ] Test Well [X] Monitor Well [ ]

8. CASING: [X] Threaded [ ] Welded
Diam.: 2" Height: Above/Below
Type: [X] PVC [ ] Galvanized Surface: 2.5' ft.
[ ] Steel [ ] Other Weight: N/A Sch. 40 lb./ft.
0.0' in. to 9.0' ft. depth Drive Shoe? [ ] Yes [X] No
in. to ft. depth

9. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10.0'
Set Between: 9.0' ft. and 19.0' ft. NOTE: MULTIPLE SCREENS
USE SECOND SHEET
Sieve Analysis [ ] Yes (please enclose) [X] No

10. STATIC WATER LEVEL
6.5' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
N/A ft. after N/A hrs. Pumping N/A G.P.M.
Pumping Test: [ ] Yes (please enclose) [X] No
Yield: N/A

12. WATER QUALITY
Chemical Analysis [ ] Yes [X] No Bacterial Analysis [ ] Yes [X] No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) [X] Yes [ ] No
Installed from 8.0' ft. to 19.0' ft.
Effective size .018 Uniformity Coefficient 1.56

14. WELL GROUTED? [X] Yes [ ] No
[X] Neat Cement [ ] Sand Cement [ ] Concrete [ ] Other
Depth: From 0.0' ft. to 5.0' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A ft. N/A direction
N/A Type well disinfected [ ] Yes Type: N/A
upon completion [X] No Amount: N/A

16. PUMP: Date installed: N/A Not installed [X]
Mfr. Name: N/A Model No.: N/A
H.P. N/A Volts N/A Length of drop pipe ft. Capacity gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under
my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duke Engineering & Serv. Date: 5/10/99
Address: Box 219, Seneca, SC, 28242
Signed: Charles A. Medlin Cert. No.: 775
Authorized Representative

Table with 3 columns: Formation Description, Thickness of Stratum, Depth to Bottom of Stratum. Handwritten entry: See Attached Soil Test Boring field Report for MW-19

3. REMARKS:
A Bentonite seal is in place
from 5.0' to 8.0'



**Water Well Record  
Bureau of Water**

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

<b>1. LOCATION OF WELL:</b> County: <u>Greenville</u> System Name: <u>Bramlette MGP site</u> Latitude: _____ Longitude: _____ Distance and Direction from Road Intersections:  Street Address & City of Well Location: Sketch Map:			<b>4. OWNER OF WELL:</b> <u>Duke Power Co</u> Address: <u>422 South Church St.</u> <u>Charlotte, N.C. 28242</u> Telephone No.: _____ Engineer: <u>Mark McGary</u> Address: _____ Telephone No.: <u>704-373-7898</u>																																																																																																														
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REMARKS:</b> <u>A Bentonite seal is in place</u> <u>From 5.0' to 8.0'</u></td><td colspan="3" style="vertical-align: top;"><b>7. USE:</b> <input type="checkbox"/> Domestic <input type="checkbox"/> Public Supply—Permit No. _____ <input type="checkbox"/> Industry <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Commercial <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Monitor Well</td></tr><tr><td colspan="3" rowspan="2"></td><td colspan="3" style="vertical-align: top;"><b>8. CASING:</b> <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Welded Diam.: <u>2"</u> Height: <u>Above/Below</u> Type: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Galvanized Surface <u>2.5'</u> ft. <input type="checkbox"/> Steel <input type="checkbox"/> Other Weight <u>N/A</u> <u>Sch 40</u> lb./ft. <u>0.0'</u> in. to <u>2.5'</u> ft. depth Drive Shoe? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>_____</u> in. to <u>_____</u> ft. depth</td></tr><tr><td colspan="3" style="vertical-align: top;"><b>9. SCREEN</b> Type: <u>PVC</u> Diam.: <u>2"</u> Slot/Gauge: <u>.010</u> Length: <u>15.0'</u> Set Between: <u>9.5'</u> ft. and <u>24.5'</u> ft. NOTE: MULTIPLE SCREENS <u>_____</u> ft. and <u>_____</u> ft. USE SECOND SHEET Sieve Analysis <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No</td></tr><tr><td colspan="3"></td><td colspan="3" style="vertical-align: top;"><b>10. STATIC WATER LEVEL</b> <u>13.0'</u> ft. below land surface after 24 hours</td></tr><tr><td colspan="3"></td><td colspan="3" style="vertical-align: top;"><b>11. PUMPING LEVEL Below Land Surface.</b> <u>N/A</u> ft. after <u>N/A</u> hrs. Pumping <u>N/A</u> G.P.M. Pumping Test: <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No Yield: <u>N/A</u></td></tr><tr><td colspan="3"></td><td colspan="3" style="vertical-align: top;"><b>12. WATER QUALITY</b> Chemical Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Bacterial Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please enclose lab results.</td></tr><tr><td colspan="3"></td><td colspan="3" style="vertical-align: top;"><b>13. ARTIFICIAL FILTER (gravel pack)</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Installed from <u>8.0'</u> ft. to <u>25.0'</u> ft. Effective size <u>.018</u> Uniformity Coefficient <u>1.56</u></td></tr><tr><td colspan="3"></td><td colspan="3" style="vertical-align: top;"><b>14. WELL GROUTED?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Sand Cement <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____ Depth: From <u>0.0'</u> ft. to <u>5.0'</u> ft.</td></tr><tr><td colspan="3"></td><td colspan="3" style="vertical-align: top;"><b>15. NEAREST SOURCE OF POSSIBLE CONTAMINATION:</b> <u>N/A</u> ft. <u>N/A</u> direction <u>N/A</u> Type well disinfected <input type="checkbox"/> Yes Type: <u>N/A</u> upon completion <input type="checkbox"/> No Amount: <u>N/A</u></td></tr><tr><td colspan="3"></td><td colspan="3" style="vertical-align: top;"><b>16. PUMP:</b> Date installed: <u>N/A</u> Not installed <input checked="" type="checkbox"/> Mfr. 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USE:</b> <input type="checkbox"/> Domestic <input type="checkbox"/> Public Supply—Permit No. _____ <input type="checkbox"/> Industry <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Commercial <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Monitor Well						<b>8. CASING:</b> <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Welded Diam.: <u>2"</u> Height: <u>Above/Below</u> Type: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Galvanized Surface <u>2.5'</u> ft. <input type="checkbox"/> Steel <input type="checkbox"/> Other Weight <u>N/A</u> <u>Sch 40</u> lb./ft. <u>0.0'</u> in. to <u>2.5'</u> ft. depth Drive Shoe? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>_____</u> in. to <u>_____</u> ft. depth			<b>9. SCREEN</b> Type: <u>PVC</u> Diam.: <u>2"</u> Slot/Gauge: <u>.010</u> Length: <u>15.0'</u> Set Between: <u>9.5'</u> ft. and <u>24.5'</u> ft. NOTE: MULTIPLE SCREENS <u>_____</u> ft. and <u>_____</u> ft. USE SECOND SHEET Sieve Analysis <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No						<b>10. STATIC WATER LEVEL</b> <u>13.0'</u> ft. below land surface after 24 hours						<b>11. PUMPING LEVEL Below Land Surface.</b> <u>N/A</u> ft. after <u>N/A</u> hrs. Pumping <u>N/A</u> G.P.M. Pumping Test: <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No Yield: <u>N/A</u>						<b>12. WATER QUALITY</b> Chemical Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Bacterial Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please enclose lab results.						<b>13. ARTIFICIAL FILTER (gravel pack)</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Installed from <u>8.0'</u> ft. to <u>25.0'</u> ft. Effective size <u>.018</u> Uniformity Coefficient <u>1.56</u>						<b>14. 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*Indicate Water Bearing Zones (Use a 2nd sheet if needed)			<b>6.</b> <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/> Dug <input type="checkbox"/> Air Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Cable tool <input checked="" type="checkbox"/> Other <u>Auger</u>																																																																																																														
<b>3. REMARKS:</b> <u>A Bentonite seal is in place</u> <u>From 5.0' to 8.0'</u>			<b>7. USE:</b> <input type="checkbox"/> Domestic <input type="checkbox"/> Public Supply—Permit No. _____ <input type="checkbox"/> Industry <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Commercial <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Monitor Well																																																																																																														
			<b>8. CASING:</b> <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Welded Diam.: <u>2"</u> Height: <u>Above/Below</u> Type: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Galvanized Surface <u>2.5'</u> ft. <input type="checkbox"/> Steel <input type="checkbox"/> Other Weight <u>N/A</u> <u>Sch 40</u> lb./ft. <u>0.0'</u> in. to <u>2.5'</u> ft. depth Drive Shoe? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>_____</u> in. to <u>_____</u> ft. depth																																																																																																														
			<b>9. SCREEN</b> Type: <u>PVC</u> Diam.: <u>2"</u> Slot/Gauge: <u>.010</u> Length: <u>15.0'</u> Set Between: <u>9.5'</u> ft. and <u>24.5'</u> ft. NOTE: MULTIPLE SCREENS <u>_____</u> ft. and <u>_____</u> ft. USE SECOND SHEET Sieve Analysis <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No																																																																																																														
			<b>10. STATIC WATER LEVEL</b> <u>13.0'</u> ft. below land surface after 24 hours																																																																																																														
			<b>11. PUMPING LEVEL Below Land Surface.</b> <u>N/A</u> ft. after <u>N/A</u> hrs. Pumping <u>N/A</u> G.P.M. Pumping Test: <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No Yield: <u>N/A</u>																																																																																																														
			<b>12. WATER QUALITY</b> Chemical Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Bacterial Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please enclose lab results.																																																																																																														
			<b>13. ARTIFICIAL FILTER (gravel pack)</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Installed from <u>8.0'</u> ft. to <u>25.0'</u> ft. Effective size <u>.018</u> Uniformity Coefficient <u>1.56</u>																																																																																																														
			<b>14. WELL GROUTED?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Sand Cement <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____ Depth: From <u>0.0'</u> ft. to <u>5.0'</u> ft.																																																																																																														
			<b>15. NEAREST SOURCE OF POSSIBLE CONTAMINATION:</b> <u>N/A</u> ft. <u>N/A</u> direction <u>N/A</u> Type well disinfected <input type="checkbox"/> Yes Type: <u>N/A</u> upon completion <input type="checkbox"/> No Amount: <u>N/A</u>																																																																																																														
			<b>16. PUMP:</b> Date installed: <u>N/A</u> Not installed <input checked="" type="checkbox"/> Mfr. Name: <u>N/A</u> Model No.: <u>N/A</u> H.P. <u>N/A</u> Volts <u>N/A</u> Length of drop pipe _____ ft. Capacity _____ gpm TYPE: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet (shallow) <input type="checkbox"/> Turbine <input type="checkbox"/> Jet (deep) <input type="checkbox"/> Reciprocating <input type="checkbox"/> Centrifugal																																																																																																														
			<b>17. WATER WELL CONTRACTOR'S CERTIFICATION:</b> This well was drilled under my direction and this report is true to the best of my knowledge and belief. Registered Business Name: <u>Duke Engineering &amp; Ser.</u> Date: <u>5/10/99</u> Address: <u>Box 219, Seneca S.C. 29679</u> Signed: <u>Charles A. Madlar</u> Cert. No.: <u>775</u> <small>Authorized Representative</small>																																																																																																														



Water Well Record
Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:

County: Greenville System Name: Bramlette MGP site

Latitude: Longitude:

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

2. CUTTING SAMPLES: Yes No

Geophysical Logs: Yes (please enclose) No

4. OWNER OF WELL: Duke Power Co.
Address: 422 South Church St.
Charlotte, N.C. 28242

Telephone No.:
Engineer: MARK McGary
Address:

Telephone No.: 704-373-7898

5. WELL DEPTH (completed) Date Started: 3-16-99
16.0' ft. Date Completed: 3-17-99

6. Mud Rotary Jettied Bored Dug
Air Rotary Driven Cable tool Other Auger

7. USE: Domestic Public Supply-Permit No. Industry
Irrigation Air Conditioning Commercial
Test Well Monitor Well

8. CASING: Threaded Welded
Diam.: 2"
Type: PVC Galvanized
Steel Other
0.0' in. to 1.6' ft. depth
in. to ft. depth
Height: Above/Below
Surface 2.5' ft.
Weight N/A sch. 40 lb./ft.
Drive Shoe? Yes No

9. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 13.9'
Set Between: 1.6' ft. and 15.5' ft.
NOTE: MULTIPLE SCREENS
USE SECOND SHEET
Sieve Analysis Yes (please enclose) No

10. STATIC WATER LEVEL
2.6' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
N/A ft. after N/A hrs. Pumping N/A G.P.M.
Pumping Test: Yes (please enclose) No
Yield: N/A

12. WATER QUALITY
Chemical Analysis Yes No Bacterial Analysis Yes No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) Yes No
Installed from 1.0' ft. to 16.0' ft.
Effective size .018 Uniformity Coefficient 1.56

14. WELL GROUTED? Yes No
Neat Cement Sand Cement Concrete Other
Depth: From 0.0' ft. to 0.5' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A ft. N/A direction
N/A Type well disinfected Yes Type: N/A
upon completion No Amount: N/A

16. PUMP: Date installed: N/A Not installed
Mfr. Name: N/A Model No.: N/A
H.P. N/A Volts N/A Length of drop pipe ft. Capacity gpm
TYPE: Submersible Jet (shallow) Turbine
Jet (deep) Reciprocating Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under
my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duke Engineering & Survey Date: 5/10/99
Address: Box 219, Seneca, S.C. 29679
Signed: Charles A. Madala Cert. No.: 775
Authorized Representative

Table with 3 columns: Formation Description, Thickness of Stratum, Depth to Bottom of Stratum. Handwritten entry: See attached soil Test Boring field Report for MW-17

3. REMARKS: A Bentonite seal is in place
From 0.5' TO 1.0'



# Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

### 1. LOCATION OF WELL:

County: Greenville System Name: Bramlette MGP site

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

2. CUTTING SAMPLES:  Yes  No

Geophysical Logs:  Yes (please enclose)  No

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
-----------------------	----------------------	----------------------------

See Attached Boring Log for Well # MW-16


\*Indicate Water Bearing Zones

(Use a 2nd sheet if needed)

3. REMARKS:  
A Bentonite seal is in place from 2.0' to 4.0'

4. OWNER OF WELL: Duke Power Co.  
Address: 422 5th Church St. Charlotte, N.C. 28242  
Telephone No.: \_\_\_\_\_

Engineer: MARK MEGARY  
Address: \_\_\_\_\_  
Telephone No.: 704-373-7898

5. WELL DEPTH (completed) \_\_\_\_\_ ft. Date Started: 3-8-99  
Date Completed: 3-8-99

6.  Mud Rotary  Jetted  Bored  Dug  
 Air Rotary  Driven  Cable tool  Other augered

7. USE:  
 Domestic  Public Supply-Permit No. \_\_\_\_\_  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well  Monitor Well  \_\_\_\_\_

8. CASING:  Threaded  Welded  
Diam.: 2"  
Type:  PVC  Galvanized  
 Steel  Other  
0.0' in. to 5.0' ft. depth  
\_\_\_\_\_ in. to \_\_\_\_\_ ft. depth  
Height: Above/Below  
Surface 2.5' ft.  
Weight N/A Sch. 40 lb./ft.  
Drive Shoe?  Yes  No

9. SCREEN  
Type: PVC Diam.: 2"  
Slot/Gauge: .010 Length: 10.0'  
Set Between: 5.0' ft. and 15.0' ft. **NOTE: MULTIPLE SCREENS USE SECOND SHEET**  
\_\_\_\_\_ ft. and \_\_\_\_\_ ft.  
Sieve Analysis  Yes (please enclose)  No

10. STATIC WATER LEVEL  
7.6' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.  
N/A ft. after N/A hrs. Pumping N/A G.P.M.  
Pumping Test:  Yes (please enclose)  No  
Yield: N/A

12. WATER QUALITY  
Chemical Analysis  Yes  No Bacterial Analysis  Yes  No  
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack)  Yes  No  
Installed from 4.0' ft. to 16.0' ft.  
Effective size .018 Uniformity Coefficient 1.56

14. WELL GROUTED?  Yes  No  
 Neat Cement  Sand Cement  Concrete  Other \_\_\_\_\_  
Depth: From 0.0' ft. to 2.0' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A ft. \_\_\_\_\_ direction  
N/A Type well disinfected  Yes Type: N/A  
upon completion  No Amount: N/A

16. PUMP: Date installed: N/A Not installed   
Mfr. Name: N/A Model No.: N/A  
H.P. N/A Volts N/A Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ gpm  
TYPE:  Submersible  Jet (shallow)  Turbine  
 Jet (deep)  Reciprocating  Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.  
Registered Business Name: Duke Engineering Service Date: 5/10/99  
Address: P.O. Box 219, Seneca, S.C. 29679  
Signed: Charles A. Mallard Cert. No.: 775  
Authorized Representative



Water Well Record
Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL:
County: Greenville
System Name: Bramlette MGP site
Latitude:
Longitude:
Distance and Direction from Road Intersections:
Street Address & City of Well Location:
Sketch Map:

2. CUTTING SAMPLES: [X] Yes [ ] No
Geophysical Logs: [ ] Yes (please enclose) [ ] No

Table with 3 columns: Formation Description, Thickness of Stratum, Depth to Bottom of Stratum. Handwritten entry: 'see Attached Boring Log for Well # 15'

3. REMARKS:
A Bentonite seal is in place
From 45.0' TO 48.0'

4. OWNER OF WELL: Duke Power Co.
Address: 422 South Church St. Charlotte, N.C. 28242
Telephone No.:
Engineer: MARK MEGARY
Address:
Telephone No.: 704-373-7898

5. WELL DEPTH (completed) Date Started: 3-2-99
Date Completed: 3-4-99
58.4' ft.

6. [ ] Mud Rotary [ ] Jetted [ ] Bored [ ] Dug
[ ] Air Rotary [ ] Driven [ ] Cable tool [X] Other Augered

7. USE:
[ ] Domestic [ ] Public Supply-Permit No. [ ] Industry
[ ] Irrigation [ ] Air Conditioning [ ] Commercial
[ ] Test Well [X] Monitor Well [ ]

8. CASING: [X] Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized [ ] Steel [ ] Other
0.0' in. to 50.0' ft. depth
in. to ft. depth
Height: Above/Below Surface 2.5' ft.
Weight N/A 54.40 lb./ft.
Drive Shoe? [ ] Yes [X] No

9. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 5.0'
Set Between: 50.0' ft. and 55.0' ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis [ ] Yes (please enclose) [X] No

10. STATIC WATER LEVEL
7.2' ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
N/A ft. after N/A hrs. Pumping N/A G.P.M.
Pumping Test: [ ] Yes (please enclose) [X] No
Yield:

12. WATER QUALITY
Chemical Analysis [ ] Yes [X] No Bacterial Analysis [ ] Yes [X] No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) [X] Yes [ ] No
Installed from 48.0' ft. to 58.4' ft.
Effective size .018 Uniformity Coefficient 1.56

14. WELL GROUTED? [X] Yes [ ] No
[X] Neat Cement [ ] Sand Cement [ ] Concrete [ ] Other
Depth: From 0.0' ft. to 45.0' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: N/A ft. N/A direction
N/A Type well disinfected [ ] Yes Type: N/A
upon completion [X] No Amount: N/A

16. PUMP: Date installed: N/A Not installed [X]
Mfr. Name: N/A Model No.: N/A
H.P. N/A Volts N/A Length of drop pipe ft. Capacity N/A gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

17. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Registered Business Name: Duke Engineering & Services Date: 5/10/99
Address: PO BOX 219, SENECA, S.C. 29679
Signed: Charles A. McLean Cert. No.: 725
Authorized Representative



## Water Well Record Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

**1. LOCATION OF WELL:**

County: Greenville System Name: Bramlette MGP site

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Distance and Direction from Road Intersections: \_\_\_\_\_

Street Address & City of Well Location: \_\_\_\_\_

Sketch Map: \_\_\_\_\_

2. CUTTING SAMPLES:  Yes  No

Geophysical Logs:  Yes (please enclose)  No

**4. OWNER OF WELL:** Duke Power Co.  
Address: 422 South Church St.  
Charlotte, N.C. 28242  
Telephone No.: \_\_\_\_\_  
Engineer: Mark McGary  
Address: \_\_\_\_\_  
Telephone No.: 704-373-7898

**5. WELL DEPTH (completed)** \_\_\_\_\_ ft. Date Started: 3-18-99  
Date Completed: 3-18-99

6.  Mud Rotary  Jetted  Bored  Dug  
 Air Rotary  Driven  Cable tool  Other Auger

**7. USE:**  
 Domestic  Public Supply—Permit No. \_\_\_\_\_  Industry  
 Irrigation  Air Conditioning  Commercial  
 Test Well  Monitor Well  \_\_\_\_\_

**8. CASING:**  Threaded  Welded  
Diam.: 2" Height: Above/Below  
Type:  PVC  Galvanized Surface: 2.5' ft.  
 Steel  Other Weight: N/A sch. 40 lb./ft.  
0.0' in. to 2.0' ft. depth Drive Shoe?  Yes  No  
\_\_\_\_\_ in. to \_\_\_\_\_ ft. depth

**9. SCREEN**  
Type: PVC Diam.: 2"  
Slot/Gauge: .010 Length: 10.0'  
Set Between: 2.0' ft. and 12.0' ft. NOTE: MULTIPLE SCREENS  
\_\_\_\_\_ ft. and \_\_\_\_\_ ft. USE SECOND SHEET  
Sieve Analysis  Yes (please enclose)  No

**10. STATIC WATER LEVEL**  
3.6' ft. below land surface after 24 hours

**11. PUMPING LEVEL** Below Land Surface.  
N/A ft. after N/A hrs. Pumping N/A G.P.M.  
Pumping Test:  Yes (please enclose)  No  
Yield: N/A

**12. WATER QUALITY**  
Chemical Analysis  Yes  No Bacterial Analysis  Yes  No  
Please enclose lab results.

**13. ARTIFICIAL FILTER (gravel pack)**  Yes  No  
Installed from 1.5' ft. to 13.0' ft.  
Effective size 018 Uniformity Coefficient 1.56

**14. WELL GROUTED?**  Yes  No  
 Neat Cement  Sand Cement  Concrete  Other \_\_\_\_\_  
Depth: From 0.0' ft. to 0.5' ft.

**15. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** N/A ft. N/A direction  
N/A Type well disinfected  Yes  No Type: N/A  
upon completion  No Amount: N/A

**16. PUMP:** Date installed: N/A Not installed   
Mfr. Name: N/A Model No.: N/A  
H.P. N/A Volts N/A Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ gpm  
TYPE:  Submersible  Jet (shallow)  Turbine  
 Jet (deep)  Reciprocating  Centrifugal

**17. WATER WELL CONTRACTOR'S CERTIFICATION:** This well was drilled under  
my direction and this report is true to the best of my knowledge and belief.

Registered Business Name: Duke Engineering & Ser. Date: 5/10/99  
Address: Box 219 Seneca SC 29679  
Signed: Charles A. Madlin Cert. No.: 775  
Authorized Representative

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
See Attached		
Soil Test Boring		
Field Report For		
MW-14		

\*Indicate Water Bearing Zones  
(Use a 2nd sheet if needed)

**3. REMARKS:** A Bentonite seal is in place from 0.5' to 1.5'

















**APPENDIX  
G**

**Phase III  
Chain of Custody Records  
and  
Analytical Data**



# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Substitute Form 89862 (9-97)  
Previously Form 35228

Duke Power's Analytical Laboratory  
 MNS Bldg. # 7405 MGO3A2  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078  
 Phone: (704) 875-5209/875-5245  
 Fax: (704) 875-5038

CLIENT: 0702MGPGLBRMST Report to/Ph: GLF/4844  
 Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
 Business Unit: 20018 Resp. Center To: 0897  
 Project ID: MGPBRAM  
 Activity ID: ALLACTV  
 Process:

LAB USE		
LIMS # <u>99-JUN-0042</u>	Sample Class <u>MGP</u>	Vencored Samples
Logged By (ini.) _____	Date _____	Vendor _____
Time _____	Analysis _____	P.O. # _____

Container Type: ( ) Glass ( ) Plastic

Preservative Added		TOTAL MICROBIAL COUNT	TOTAL PHOSPHATE	TOTAL # OF CONTAINERS
HN03	H2SO4			
Ice	Other			
None	Analysis Required			

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		GRAB	COMP
			Date	Time		
99014009	MW-1		6/16/99	1420	AK Connolly	
4010	MW-2		6/16/99	1110	R.P. Labella	
4011	MW-3		6/15/99	1520	Richard Connolly	
4012	MW-4		6/17/99	0849	LD Campbell	
4013	MW-5		6/14/99	1535	R.P. Labella	
4014	MW-6	MW7 WAC	6/15/99	0935	Richard Connolly	
4015	MW-7	MW6 LOC	6/16/99	0915	R.A. Labella	
4016	MW-8		6/15/99	0945	RK Davis	
4017	MW-9		6/15/99	1135	AK Connolly	
4018	MW-10		6/15/99	1515	AK Connolly	
4019	MW-11		6/15/99	1130	AK Connolly	
4020	MW-12		6/15/99	1105	LD Campbell	
4021	MW-13		6/15/99	0940	LD Campbell	
4022	MW-14		6/15/99	0935	AK Connolly	
4023	MW-15		6/16/99	1410	R.K. Davis	
4024	MW-16		6/16/99	0928	AK Connolly	

Relinquished by: <u>Walter Adams</u>	Date/Time: <u>0740 6/18/99</u>	Accepted By: <u>Walter Adams</u>	Date/Time: <u>0940 6/18/99</u>
Relinquished by:	Date/Time:	Accepted By:	Date/Time:
Sealed/Locked by:	Date/Time:	Seal/Lock Opened By:	Date/Time:

Turnaround Requested

Routine (2 weeks)

Rush (1 week)

Emergency Rush (24-48 Hrs.)\*

Date Results Requested: \_\_\_\_\_

\* Additional Charges Will Apply

Sample Matrix <input type="checkbox"/> NC <input type="checkbox"/> SC <input type="checkbox"/> TEMP:	Comments:
Ground Water <input type="checkbox"/> NPDES <input type="checkbox"/>	
Drinking Water <input type="checkbox"/> UST <input type="checkbox"/>	
RCRA Waste <input type="checkbox"/> Other <input type="checkbox"/>	

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Sub Form 89862 (9-97)  
Previously Form 35228

Duke Power's Analytical Laboratory  
MNS Bldg. # 7405 MGO3A2  
13339 Hagers Ferry Road  
Huntersville, NC 28078  
Phone: (704) 875-5209/875-5245  
Fax: (704) 875-5038

CLIENT: 0702MGPGLBRMST Report to/Ph: GLF/4844  
Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
Business Unit: 20018 Resp. Center To: 0897  
Project ID: MGPBRAM  
Activity ID: ALLACTV  
Process:

LAB USE	
LIMS # <u>99-JUN-0042</u>	Sample Class <u>MGP</u>
Logged By (ini.) _____	Date _____
Venclored Samples	
Vendor _____	Analysis _____
Vendor _____	P.O.# _____

Container Type: ( ) Glass ( ) Plastic

Preservative Added		Analysis Required	EPA 8260	EPA 8270	CL, NH3	ALK, SO4, ACIDITY	TOC	TSS	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	OIL & GREASE	CYANIDE	HG	TOTAL # OF CONTAINERS
HNO3	H2SO4												
Ice													
Other													
None													

Sample #	Lab PROFS #	Sample Description or ID	Collection Information	
			Date	Signature
99014025		MW-17	6-15-99 10:50	RH Connolly
4026		MW-18	6-16-99 14:00	R.H. Connolly
4027		MW-19	6-16-99 14:00	R.H. Connolly
4028		MW-20	6-15-99 14:50	R.H. Connolly
4035		MW-21	6-16-99 09:30	R.H. Connolly
4036		MW-22	6-16-99 16:40	R.H. Connolly
4037		MW-20-24	6-14-99 15:35	R.H. Connolly
4038		MW-24-23	6-14-99 16:45	R.H. Connolly
4039		MW-25	6-15-99 15:25	R.H. Connolly
4040		SW-1	6-17-99 09:00	R.H. Connolly
4041		SW-2	6-17-99 09:10	R.H. Connolly
4042		SW-3	6-17-99 10:38	R.H. Connolly
4043		SW-4	6-17-99 10:45	R.H. Connolly
4044		SW-5	6-17-99 11:00	R.H. Connolly
4045		SW-6	6-17-99 12:10	R.H. Connolly
4047		SW-7	6-17-99 12:10	R.H. Connolly

Relinquished by: <u>R.H. Connolly</u>	Date/Time: <u>07/10/98</u>	Accepted By: <u>R.H. Connolly</u>	Date/Time: <u>07/10/98</u>
Relinquished by: _____	Date/Time: _____	Accepted By: _____	Date/Time: _____
Sealed/Locked by: _____	Date/Time: _____	Seal/Lock Opened By: _____	Date/Time: _____

Turnaround Requested

Routine (2 weeks)

Rush (1 week)

Emergency Rush (24-48 Hrs.)\*

Date Results Requested: \_\_\_\_\_

\* Additional Charges Will Apply

Sample Matrix NC  SC  TEMP: \_\_\_\_\_

Ground Water  NPDES

Drinking Water  UST

RCRA Waste  Other

Comments: \* OUT OF SEQUENCE

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Substitute Form 89962 (9-97)  
Previously Form 35228

Duke Power's Analytical Laboratory  
MNS Bldg. # 7405 MGO3A2  
13339 Hagers Ferry Road  
Huntersville, NC 28078  
Phone: (704) 875-5209/875-5245  
Fax: (704) 875-5038

CLIENT: 0702MGPGVLBRMST Report to/Ph. GLF/4844  
Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
Business Unit: 20018 Resp. Center To: 0897  
Project ID: MGPBRAM  
Activity ID: ALLACTV  
Process:

Container Type: ( ) Glass ( ) Plastic  
Preservative Added

Analysis Required	GRAB	COMP	EPA 8260	EPA 8270	CL, NH3	ALK, SO4, ACIDITY	TOC	TSS	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	OIL & GREASE	CYANIDE	Hg	TOTAL # OF CONTAINERS
HN03													
H2SO4													
Ice													
Other													
None													

LAB USE

LIMS # 99-JUN-0042 Logged By (Ini.)                      Time                      Date                     

Sample Class MEP Venclored Samples

Vendor                      Analysis                     

Vendor                      P.O. #                     

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		Signature
			Date	Time	
<u>4048</u>	<u>SW-8</u>	<u>                    </u>	<u>6-12-99</u>	<u>1245</u>	<u>R.H. Connelly</u>
<u>4049</u>	<u>SW-9</u>	<u>                    </u>	<u>6-12-99</u>	<u>1135</u>	<u>LD Campbell</u>
<u>4050</u>	<u>SW-10</u>	<u>                    </u>	<u>6-17-99</u>	<u>1235</u>	<u>LD Campbell</u>
<u>4051</u>	<u>TRIP BLANK</u>	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
<u>4052</u>	<u>FIELD BLANK</u>	<u>                    </u>	<u>6-12-99</u>	<u>1515</u>	<u>DP Dennis</u>
<u>4057</u>	<u>MW-18 QC SAMPLE</u>	<u>                    </u>	<u>6-16-99</u>	<u>1400</u>	<u>K.D. Cahill</u>
<u>5516</u>	<u>MW-3D</u>	<u>                    </u>	<u>6-15-99</u>	<u>1445</u>	<u>Yob. Hernandez</u>
		<u>Resample</u>	<u>6-12-99</u>	<u>0955</u>	<u>LD Campbell</u>

Relinquished by:                      Date/Time 0740 6/18/99 Accepted By:                      Date/Time 0740 6/18/99

Relinquished by:                      Date/Time                      Accepted By:                      Date/Time                     

Sealed/Locked by:                      Date/Time                      Seal/Lock Opened By:                      Date/Time                     

Tumaround Requested

Routine (2 weeks)

Rush (1 week)

Emergency Rush (24-48 Hrs.)\*

Date Results Requested:                     

\* Additional Charges Will Apply

Sample Matrix  NC  SC  TEMP:                     

Ground Water  NPDES

Drinking Water  UST

RCRA Waste  Other

Comments:

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Sub Form 89962 (9-97)  
Previously Form 35228

Duke Power's Analytical Laboratory  
MNS Bldg. # 7405 MGO3A2  
13339 Hagers Ferry Road  
Huntersville, NC 28078  
Phone: (704) 875-5209/875-5245  
Fax: (704) 875-5038

CLIENT: 0702MGPGVLRBMSJ Report to/Ph. GLF14844  
Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
Business Unit: 20018 Resp. Center To: 0897  
Project ID: MGPBRAM  
Activity ID: ALLACTV  
Process:

LAB USE	
LIMS # <u>99-JUN-0042</u>	Sample Class <u>MGP</u>
Logged By (Ini.) _____	Date _____
Vencored Samples	
Vendor _____	Analysis _____
Vendor _____	P.O. # _____

Container Type: ( ) Glass ( ) Plastic

Preservative Added	Analysis Requested										TOTAL # OF CONTAINERS									
	HN03	H2SO4	Ice	Other	None	Analysis	GRAB	COMP	EPA 8260	EPA 8270		CL, NH3	ALK, SO4, ACIDITY	TOC	TSS	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	OIL & GREASE	CYANIDE	HG	
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12
									3	1	1	1	1	1	1	1	1	1	1	12

Sample #	Lab PROFS #	Sample Description or ID	Collection Information	
			Date	Time
9901 2009	MW-1		6-16-99	1420
4010	MW-2		6-16-99	1110
4011	MW-3 ✓		6-15-99	1520
4012	MW-4		6-17-99	0849
4013	MW-5		6-14-99	1535
4014	MW-6 - XW 7		6-15-99	0935
4015	MW-7 - MW 6		6-16-99	0915
4016	MW-8		6-15-99	0945
4017	MW-9		6-15-99	1125
4018	MW-10		6-15-99	1515
4019	MW-11 ✓		6-15-99	1130
4020	MW-12		6-15-99	1105
4021	MW-13		6-15-99	0940
4022	MW-14		6-15-99	0935
4023	MW-15		6-16-99	1410
4024	MW-16		6-16-99	0928

Relinquished by: W. H. Davis Date/Time: 0740 6/18/99 Accepted By: W. H. Davis Date/Time: 0740 6/18/99

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Accepted By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Sealed/Locked by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Seal/Lock Opened By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Tumaround Requested

Routine (2 weeks)

Rush (1 week)

Emergency Rush (24-48 Hrs.)\*

Date Results Requested: \_\_\_\_\_

\* Additional Charges Will Apply

Sample Matrix:  NC  SC  TEMP:

Ground Water  NPDES

Drinking Water  UST

RCRA Waste  Other

Comments: \_\_\_\_\_

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Substitute Form 89962 (9-97)  
Previously Form 35226

Duke Power's Analytical Laboratory  
MNS Bldg. # 7405 MGO3A2  
13339 Hagers Ferry Road  
Huntersville, NC 28078  
Phone: (704) 875-5209/875-5245  
Fax: (704) 875-5038

CLIENT: 0702MGPVGBRMSI Report to/Ph: GLF/4844  
Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
Business Unit: 20018 Resp. Center To: 0897  
Project ID: MGPBRAM  
Activity ID: ALLACTV  
Process:

Container Type: ( ) Glass ( ) Plastic

LAB USE	
LIMS # <u>99-JUN-0042</u>	Sample Class <u>MSP</u>
Logged By (Ini.) _____	Date _____
Time _____	Vendor _____
Analysis _____	Vendor _____
P.O. # _____	Vendor _____

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		Analysis Required	Preservative Added	TOTAL MICROBIAL COUNT	TOTAL PHOSPHATE	TOTAL # OF CONTAINERS
			Date	Time					
<u>4014025</u>	MW-17		<u>6-15-99</u>	<u>1050</u>	<u>DH Davis</u>		1	1	2
<u>4026</u>	MW-18		<u>6/16/99</u>	<u>1400</u>	<u>D.A. Cabell</u>		1	1	2
<u>4027</u>	MW-19		<u>6/16/99</u>	<u>1400</u>	<u>DH Davis</u>		1	1	2
<u>4028</u>	MW-20		<u>6/15/99</u>	<u>1450</u>	<u>L. Franklin</u>		1	1	2
<u>4035</u>	MW-21		<u>6/16/99</u>	<u>0920</u>	<u>L. Franklin</u>		1	1	2
<u>4036</u>	MW-22		<u>6/14/99</u>	<u>1640</u>	<u>Tim Howard</u>		1	1	2
<u>4037</u>	MW- <del>23</del> 24		<u>6-14-99</u>	<u>1535</u>	<u>RH Connolly</u>		1	1	2
<u>4038</u>	MW- <del>24</del> 23		<u>6-14-99</u>	<u>1645</u>	<u>RH Connolly</u>		1	1	2
<u>4039</u>	MW-25		<u>6/15/99</u>	<u>1525</u>	<u>DH Davis</u>		1	1	2
<u>4040</u>	SW-1		<u>6-17-99</u>	<u>0900</u>	<u>RH Connolly</u>		1	1	2
<u>4041</u>	SW-2		<u>6/17/99</u>	<u>0910</u>	<u>RH Connolly</u>		1	1	2
<u>4042</u>	SW-3		<u>6/17/99</u>	<u>1038</u>	<u>RH Connolly</u>		1	1	2
<u>4043</u>	SW-4		<u>6/17/99</u>	<u>1045</u>	<u>RH Connolly</u>		1	1	2
<u>4046</u>	SW-5		<u>6/17/99</u>	<u>1100</u>	<u>RH Connolly</u>		1	1	2
<u>4045</u>	SW-6 (No SPL)	<u>Dry</u>	<u>6/17/99</u>	<u>NOT Sampled</u>			1	1	2
<u>4047</u>	SW-7		<u>6/17/99</u>	<u>1210</u>	<u>DH Davis</u>		1	1	2

Turnaround Requested  
 Routine (2 weeks)  
 Rush (1 week)  
 Emergency Rush (24-48 Hrs.)\*  
 Date Results Requested: \_\_\_\_\_  
 \* Additional Charges Will Apply

Relinquished by: <u>DH Davis</u>	Date/Time: <u>6-18-99</u>	Accepted By: <u>Robert Bowen</u>	Date/Time: <u>6/18/99 0740</u>
Relinquished by:	Date/Time:	Accepted By:	Date/Time:
Sealed/Locked by:	Date/Time:	Seal/Lock Opened By:	Date/Time:

Sample Matrix NC  SC  TEMP: \_\_\_\_\_  
 Ground Water  NPDES   
 Drinking Water  UST   
 RCRA Waste  Other

Comments: \* out of sequence

\*

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Duke Power's Analytical Laboratory  
MNS Bldg. # 7405 MGO3A2  
13339 Hagers Ferry Road  
Huntersville, NC 28078  
Phone: (704) 875-5209/875-5245  
Fax: (704) 875-5038

CLIENT: 0702MGPVLRBMST Report to/Ph: GLF/4844  
Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
Business Unit: 20018 Resp. Center To: 0897  
# MIMS Project ID: MGPBRAM  
Activity ID: ALLACTV  
Process:

Container Type: ( ) Glass ( ) Plastic

Preservative Added		TOTAL MICROBIAL COUNT	TOTAL PHOSPHATE	TOTAL # OF CONTAINERS
HN03	H2SO4			
Ice				
Other				
None				
Analysis Required				

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		GRAB	COMP
			Date	Time		
9901 A048		SW-8	6/17/99	1245		
A049		SW-9	6/17/99	1335		
A050		SW-10	6/17/99	1335		
A051		TRIP BLANK				
A052		FIELD BLANK	6/22/99	1515		
		MW-18 QC SAMPLE	6/16/99	1400		
4057		MW-3D	6/15/99	1445		

Signature: RA Cornelle  
L.D. Campbell  
DK Davis  
DK Davis  
L.D. Campbell  
Ken Behaumen

Relinquished by: [Signature] Date/Time: 0740 6/18/99 Accepted By: [Signature] Date/Time: 6/18/99 0740

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Accepted By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Sealed/Locked by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Seal/Lock Opened By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Turnaround Requested:  
 Routine (2 weeks)  
 Rush (1 week)  
 Emergency Rush (24-48 Hrs.)\*  
Date Results Requested: \_\_\_\_\_  
\* Additional Charges Will Apply

Sample Matrix:  NC  SC  TEMP:  
Ground Water  NPDES   
Drinking Water  UST   
RCRA Waste  Other

Comments: \_\_\_\_\_

Duke Power's Analytical Laboratory  
 MNS Bldg. # 7405 MGO3A2  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078  
 Phone: (704) 875-5209/875-5245  
 Fax: (704) 875-5038

revisuany 7/2/11 35

Container Type: ( ) Glass ( ) Plastic

**LAB USE**

LIMS # 99-JUN-0042 Sample Class MGP

Logged By (Ini.) \_\_\_\_\_ Date \_\_\_\_\_

Vendor \_\_\_\_\_ Analysis \_\_\_\_\_

Vendor \_\_\_\_\_ P.O. # \_\_\_\_\_

CLIENT: 0702MGPGVLRMSI Report to/Ph\_GLF/4844

Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3

Business Unit: 20018 Resp. Center To: 0897

Project ID: MGPBRAM

Activity ID: ALLACTV

Process: \_\_\_\_\_

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		Analysis Required	PRESERVATIVE ADDED	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	TSS	TOC	ALK, SO4, ACIDITY	CL, NH3	EPA 8270	EPA 8260	CYANIDE	HG
			Date	Time											
4009	MW-1		6-16-99	1420	R.H. Connolly										
4010	MW-2		6-16-99	1110	L.D. Campbell										
4011	MW-3 ✓		6-15-99	1520	T. Humes										
4012	MW-4		6-17-99	0849	L.D. Campbell										
4013	MW-5		6-14-99	1535	D.P. Franks										
4014	MW-6	MW 7	6-15-99	0935	R.H. Connolly										
4015	MW-7	MW 6	6-16-99	0915	L.D. Campbell										
4016	MW-8		6-15-99	0945	R.H. Connolly										
4017	MW-9		6-15-99	1125	R.H. Connolly										
4018	MW-10		6-15-99	1515	R.H. Connolly										
4019	MW-11 ✓		6-15-99	1130	D.P. Franks										
4020	MW-12		6-15-99	1105	T. Humes										
4021	MW-13		6-15-99	0945	T. Humes										
4022	MW-14		6-15-99	0935	T. Humes										
4023	MW-15		6-16-99	1410	D.P. Franks										
4024	MW-16		6-16-99	0928	R.H. Connolly										

Turnaround Requested

Routine (2 weeks)  
 Rush (1 week)  
 Emergency Rush (24-48 Hrs.)  
 Date Results Requested: \_\_\_\_\_  
 \* Additional Charges Will Apply

Relinquished by: W.A. Davis Date/Time 0740 6/18/99 Accepted By: W.A. Davis Date/Time 0740 6/18/99

Relinquished by: W.A. Davis Date/Time 6/18/99 1505 Accepted By: W.A. Davis Date/Time 6/18/99 1505

Sealed/Locked by: \_\_\_\_\_ Date/Time \_\_\_\_\_ Seal/Lock Opened By: \_\_\_\_\_ Date/Time \_\_\_\_\_

Comments: \_\_\_\_\_

Sample Matrix  NC  SC  TEMP: \_\_\_\_\_

Ground Water  NPDES

Drinking Water  UST

RCRA Waste  Other

Duke University's Analytical Laboratory  
 MNS Bldg. # 7405 MGO3A2  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078  
 Phone: (704) 875-5209/875-5245  
 Fax: (704) 875-5038

CLIENT: 0702MGPGVLRBMST Report to/Ph: GLF/4844  
 Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
 Business Unit: 20018  
 Project ID: MGPBRAM  
 Activity ID: ALLACTV  
 Process:

LIMS # 99-UN-0042  
 Logged By (In.): Time Date  
 Vendor Analysis  
 Vendor P.O.#

Sample #	Lab PROFS #	Sample Description or ID	Collection Information	
			Date	Signature
9901423		MW-17	6-15-99 1050	RH Connolly
4026		MW-18	6-15-99 1400	RH Connolly
4027		MW-19	6-16-99 1400	RH Connolly
4028		MW-20	6-15-99 1450	RH Connolly
4035		MW-21	6-14-99 0930	RH Connolly
4036		MW-22	6-14-99 1630	RH Connolly
4037		MW-23	6-14-99 1535	RH Connolly
4038		MW-24	6-14-99 1645	RH Connolly
4039		MW-25	6-15-99 1525	RH Connolly
4040		SW-1	6-12-99 0900	RH Connolly
4041		SW-2	6-12-99 0910	RH Connolly
4042		SW-3	6-12-99 1035	RH Connolly
4043		SW-4	6-12-99 1045	RH Connolly
4044		SW-5	6-12-99 1100	RH Connolly
4045		SW-6	NOT Sampled	
4047		SW-7	6-12-99 1210	RH Connolly

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		Analysis Required	GRAB COMP	Preservative Added	Container Type: ( ) Glass ( ) Plastic	TOTAL # OF CONTAINERS
			Date	Signature					
9901423		MW-17	6-15-99 1050	RH Connolly					
4026		MW-18	6-15-99 1400	RH Connolly					
4027		MW-19	6-16-99 1400	RH Connolly					
4028		MW-20	6-15-99 1450	RH Connolly					
4035		MW-21	6-14-99 0930	RH Connolly					
4036		MW-22	6-14-99 1630	RH Connolly					
4037		MW-23	6-14-99 1535	RH Connolly					
4038		MW-24	6-14-99 1645	RH Connolly					
4039		MW-25	6-15-99 1525	RH Connolly					
4040		SW-1	6-12-99 0900	RH Connolly					
4041		SW-2	6-12-99 0910	RH Connolly					
4042		SW-3	6-12-99 1035	RH Connolly					
4043		SW-4	6-12-99 1045	RH Connolly					
4044		SW-5	6-12-99 1100	RH Connolly					
4045		SW-6	NOT Sampled						
4047		SW-7	6-12-99 1210	RH Connolly					

Relinquished by: W.H. Davis Date/Time: 0290 6/18/98 Accepted By: Mark Baker Date/Time: 6/18/99 0740  
 Relinquished by: Doug Whisman Date/Time: 6/18/99 1505 Accepted By: Shirley Pace Date/Time: 6/18/99 0705  
 Sealed/Locked by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Seal/Lock Opened By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Sample Matrix  NC  SC  TEMP:  
 Ground Water  NPDES   
 Drinking Water  UST   
 RCRA Waste  Other

Comments: \* OUT OF SEQUENCE

Original - AL Files Copy 1- AL Files Copy 2 - Client Copy

Turnaround Requested  
 Routine (2 weeks)  
 Rush (1 week)  
 Emergency Rush (24-48 Hrs.)\*  
 Date Results Requested: \_\_\_\_\_  
 \* Additional Charges Will Apply



LAB USE

LIMS # 99-JUN-0042 Sample Class MSR  
 Logged By (Inl.) \_\_\_\_\_ Date \_\_\_\_\_  
 Vendor \_\_\_\_\_  
 Vendor \_\_\_\_\_ P.O. # \_\_\_\_\_

CLIENT: 0702MGPGVLRMST Report to/Ph: GLF/4844  
 Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
 Business Unit: 20018 Resp. Center To: 0897  
 Project ID: MGPBRAM  
 Activity ID: ALLACTV  
 Process: \_\_\_\_\_

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		GRAB	COMP	EPA 8260	EPA 8270	CL, NH3	ALK, SO4, ACIDITY	TOC	TSS	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	OIL & GREASE	CYANIDE	HG	TOTAL # OF CONTAINERS
			Date	Time													
4048		SW-8	6-12-99	12:45	RF Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4049		SW-9	6-12-99	11:35	LD Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4050		SW-10	6-12-99	12:35	LD Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4051		TRIP BLANK				3											
4052		FIELD BLANK	6-12-99	15:15	RF Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4053		MW-18 QC SAMPLE	6-16-99	14:00	K.D. Connolly	1											
4054		MW-3D	6-15-99	14:45	Yodi Connolly												
5516		MW 3-2 Re Sample	6-12-99	09:55	LD Connolly	1											

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		GRAB	COMP	EPA 8260	EPA 8270	CL, NH3	ALK, SO4, ACIDITY	TOC	TSS	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	OIL & GREASE	CYANIDE	HG	TOTAL # OF CONTAINERS
			Date	Time													
4048		SW-8	6-12-99	12:45	RF Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4049		SW-9	6-12-99	11:35	LD Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4050		SW-10	6-12-99	12:35	LD Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4051		TRIP BLANK				3											
4052		FIELD BLANK	6-12-99	15:15	RF Connolly	3	1	1	1	1	1	1	1	1	1	1	1
4053		MW-18 QC SAMPLE	6-16-99	14:00	K.D. Connolly	1											
4054		MW-3D	6-15-99	14:45	Yodi Connolly												
5516		MW 3-2 Re Sample	6-12-99	09:55	LD Connolly	1											

Relinquished by: Yodi Connolly Date/Time 6/18/99 Accepted By: Yodi Connolly Date/Time 6/18/99 0740  
 Relinquished by: Yodi Connolly Date/Time 6/18/99 Accepted By: Yodi Connolly Date/Time 6/18/99 0740  
 Sealed/Leaked by: Yodi Connolly Date/Time 6/18/99 15:00 Seal/Lock Opened By: Yodi Connolly Date/Time 6/18/99 15:00

Sample Matrix  NC  SC  TEMP: \_\_\_\_\_  
 Ground Water  NPDES   
 Drinking Water  UST   
 RCRA Waste  Other   
 Comments: \_\_\_\_\_



# Semi-Volatile Organics Case Narrative

*(This document must accompany release of analytical results)*

**99-JUN-0042**

- » *Samples were analyzed using USEPA Method SW846-8270.*
- » *Sample 99014028 had an internal standard failure. Compounds Di-n-octylphthalate through Benzo(g,h,i)perylene should be considered as estimates for this sample.*
- » *Sample 99014046 had a 1:5 dilution due to matrix interference.*

*Rodney G. Wike*



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014009

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-1

Collection Date: 6/16/99

Location: MW-1

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 1000 ug/L	1000 ug/L	0
n-Nitrosodimethylamine	< 1000 ug/L	1000 ug/L	0
Aniline	< 1000 ug/L	1000 ug/L	0
Phenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethyl)ether	< 1000 ug/L	1000 ug/L	0
2-Chlorophenol	< 1000 ug/L	1000 ug/L	0
1,3-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
1,4-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
Benzyl alcohol	< 1000 ug/L	1000 ug/L	0
1,2-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
2-Methylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroisopropyl)ether	< 1000 ug/L	1000 ug/L	0
4-Methylphenol	< 1000 ug/L	1000 ug/L	0
Hexachloroethane	< 1000 ug/L	1000 ug/L	0
n-Nitrosodi-n-propylamine	< 1000 ug/L	1000 ug/L	0
Nitrobenzene	< 1000 ug/L	1000 ug/L	0
Isophorone	< 1000 ug/L	1000 ug/L	0
2-Nitrophenol	< 1000 ug/L	1000 ug/L	0
2,4-Dimethylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethoxy)methane	< 1000 ug/L	1000 ug/L	0
2,4-Dichlorophenol	< 1000 ug/L	1000 ug/L	0
Benzoic acid	< 1000 ug/L	1000 ug/L	0
1,2,4-Trichlorobenzene	< 1000 ug/L	1000 ug/L	0
Naphthalene	4600 ug/L	1000 ug/L	0
4-Chloroaniline	< 1000 ug/L	1000 ug/L	0
Hexachlorobutadiene	< 1000 ug/L	1000 ug/L	0
4-Chloro-3-methylphenol	< 1000 ug/L	1000 ug/L	0
2-Methylnaphthalene	1300 ug/L	1000 ug/L	0
Hexachlorocyclopentadiene	< 1000 ug/L	1000 ug/L	0
2,4,6-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2,4,5-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2-Chloronaphthalene	< 1000 ug/L	1000 ug/L	0
2-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Dimethylphthalate	< 1000 ug/L	1000 ug/L	0
Acenaphthylene	< 1000 ug/L	1000 ug/L	0
2,6-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
3-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Acenaphthene	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrophenol	< 1000 ug/L	1000 ug/L	0
4-Nitrophenol	< 1000 ug/L	1000 ug/L	0
Dibenzofuran	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
Diethylphthalate	< 1000 ug/L	1000 ug/L	0
Fluorene	< 1000 ug/L	1000 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014009</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-1</b>		
Collection Date: <b>6/16/99</b>	Location: <b>MW-1</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 1000 ug/L	1000 ug/L	0
4-Nitroaniline	< 1000 ug/L	1000 ug/L	0
2-Methyl-4,6-dinitrophenol	< 1000 ug/L	1000 ug/L	0
n-Nitrosodiphenylamine	< 1000 ug/L	1000 ug/L	0
1,2-Diphenylhydrazine	< 1000 ug/L	1000 ug/L	0
4-Bromophenylphenylether	< 1000 ug/L	1000 ug/L	0
Hexachlorobenzene	< 1000 ug/L	1000 ug/L	0
Pentachlorophenol	< 1000 ug/L	1000 ug/L	0
Phenanthrene	< 1000 ug/L	1000 ug/L	0
Anthracene	< 1000 ug/L	1000 ug/L	0
di-n-Butylphthalate	< 1000 ug/L	1000 ug/L	0
Fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzdine	< 5000 ug/L	5000 ug/L	0
Pyrene	< 1000 ug/L	1000 ug/L	0
Butylbenzylphthalate	< 1000 ug/L	1000 ug/L	0
3,3-Dichlorobenzidine	< 1000 ug/L	1000 ug/L	0
Benzo(a)anthracene	< 1000 ug/L	1000 ug/L	0
Chrysene	< 1000 ug/L	1000 ug/L	0
bis(2-Ethylhexyl)phthalate	< 1000 ug/L	1000 ug/L	0
di-n-Octylphthalate	< 1000 ug/L	1000 ug/L	0
Benzo(b)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(k)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(a)pyrene	< 1000 ug/L	1000 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 1000 ug/L	1000 ug/L	0
Dibenzo(a,h)anthracene	< 1000 ug/L	1000 ug/L	0
Benzo(g,h,i)perylene	< 1000 ug/L	1000 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Wiseman* 7/16/99  
 Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.70	2-Fluorophenol	0.8%	Nitrobenzene-D5	0.7%
Naphthalene-D8	15.62	Phenol	0.7%	2-Fluorobiphenyl	0.8%
Acenaphthene-D10	21.24	2,4,6-Tribromophenol	0.0%	Terphenyl-D14	0.8%
Phenanthrene-D10	25.92				
Chrysene-D12	34.42				
Perylene-D12	39.18				



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014010

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-2

Collection Date: 6/16/99

Location: MW-2

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	80 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	130 ug/L	10 ug/L	2
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	100 ug/L	10 ug/L	2
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	14 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014010

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-2

Collection Date: 6/16/99

Location: MW-2

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
SUBSTITUTED INDENE		73	64%	12.35	X			1172

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	86.2%	Nitrobenzene-D5	81.5%
Naphthalene-D8	15.62	Phenol	76.0%	2-Fluorobiphenyl	73.3%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	85.9%	Terphenyl-D14	79.0%
Phenanthrene-D10	25.93				
Chrysene-D12	34.43				
Perylene-D12	39.19				

**USEPA--8270 G.C. Conditions**  
 25m x 0.2mm x 0.33um Ultra Two  
 Crosslinked 5% Methyl Silicon Column  
 He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
 300°C (8.0°C/min), hold 300° for 21 min.





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014011

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-3

Collection Date: 6/15/99

Location: MW-3

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	750 ug/L	100 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	160 ug/L	100 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	140 ug/L	100 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	34 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014011

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-3

Collection Date: 6/15/99

Location: MW-3

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	29 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	160 ug/L	100 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only
- 6 - Holding Time or Analytical Time exceeded (See Case Narrative for additional information)

*Troy Whisenant* 7/20/99  
Date Verified and Approved By, Date

# Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.31	2-Fluorophenol	8.8%	Nitrobenzene-D5	8.5%
Naphthalene-D8	16.33	Phenol	0.0%	2-Fluorobiphenyl	10.1%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	10.0%	Terphenyl-D14	8.9%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.79				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID # : <b>99014012</b>	Job # : <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-4</b>		
Collection Date: <b>6/17/99</b>	Location : <b>MW-4</b>	Type of Sample : <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014012</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-4</b>		
Collection Date: <b>6/17/99</b>	Location: <b>MW-4</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant 7/16/99*  
Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.28	2-Fluorophenol	101.5%	Nitrobenzene-D5	79.7%
Naphthalene-D8	16.29	Phenol	76.0%	2-Fluorobiphenyl	64.9%
Acenaphthene-D10	21.93	2,4,6-Tribromophenol	71.4%	Terphenyl-D14	58.2%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.72				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
 Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
 to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014013

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-5

Collection Date: 6/14/99

Location: MW-5

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014013

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-5

Collection Date: 6/14/99

Location: MW-5

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Droy Whisenand 7/16/99*  
Data Verified and Approved By, Date



### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.32	2-Fluorophenol	59.3%	Nitrobenzene-D5	66.1%
Naphthalene-D8	16.32	Phenol	0.0%	2-Fluorobiphenyl	71.6%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	77.9%	Terphenyl-D14	70.4%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.80				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014015</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-6</b>		
Collection Date: <b>6/16/99</b>	Location: <b>MW-7</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 50 ug/L	50 ug/L	0
n-Nitrosodimethylamine	< 50 ug/L	50 ug/L	0
Aniline	< 50 ug/L	50 ug/L	0
Phenol	< 50 ug/L	50 ug/L	0
bis(2-Chloroethyl)ether	< 50 ug/L	50 ug/L	0
2-Chlorophenol	< 50 ug/L	50 ug/L	0
1,3-Dichlorobenzene	< 50 ug/L	50 ug/L	0
1,4-Dichlorobenzene	< 50 ug/L	50 ug/L	0
Benzyl alcohol	< 50 ug/L	50 ug/L	0
1,2-Dichlorobenzene	< 50 ug/L	50 ug/L	0
2-Methylphenol	< 50 ug/L	50 ug/L	0
bis(2-Chloroisopropyl)ether	< 50 ug/L	50 ug/L	0
4-Methylphenol	< 50 ug/L	50 ug/L	0
Hexachloroethane	< 50 ug/L	50 ug/L	0
n-Nitrosodi-n-propylamine	< 50 ug/L	50 ug/L	0
Nitrobenzene	< 50 ug/L	50 ug/L	0
Isophorone	< 50 ug/L	50 ug/L	0
2-Nitrophenol	< 50 ug/L	50 ug/L	0
2,4-Dimethylphenol	65 ug/L	50 ug/L	0
bis(2-Chloroethoxy)methane	< 50 ug/L	50 ug/L	0
2,4-Dichlorophenol	< 50 ug/L	50 ug/L	0
Benzoic acid	< 50 ug/L	50 ug/L	0
1,2,4-Trichlorobenzene	< 50 ug/L	50 ug/L	0
Naphthalene	1300 ug/L	500 ug/L	0
4-Chloroaniline	< 50 ug/L	50 ug/L	0
Hexachlorobutadiene	< 50 ug/L	50 ug/L	0
4-Chloro-3-methylphenol	< 50 ug/L	50 ug/L	0
2-Methylnaphthalene	65 ug/L	50 ug/L	0
Hexachlorocyclopentadiene	< 50 ug/L	50 ug/L	0
2,4,6-Trichlorophenol	< 50 ug/L	50 ug/L	0
2,4,5-Trichlorophenol	< 50 ug/L	50 ug/L	0
2-Chloronaphthalene	< 50 ug/L	50 ug/L	0
2-Nitroaniline	< 50 ug/L	50 ug/L	0
Dimethylphthalate	< 50 ug/L	50 ug/L	0
Acenaphthylene	< 50 ug/L	50 ug/L	0
2,6-Dinitrotoluene	< 50 ug/L	50 ug/L	0
3-Nitroaniline	< 50 ug/L	50 ug/L	0
Acenaphthene	< 50 ug/L	50 ug/L	0
2,4-Dinitrophenol	< 50 ug/L	50 ug/L	0
4-Nitrophenol	< 50 ug/L	50 ug/L	0
Dibenzofuran	< 50 ug/L	50 ug/L	0
2,4-Dinitrotoluene	< 50 ug/L	50 ug/L	0
Diethylphthalate	< 50 ug/L	50 ug/L	0
Fluorene	< 50 ug/L	50 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014015

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-6

Collection Date: 6/16/99

Location: MW-7

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 50 ug/L	50 ug/L	0
4-Nitroaniline	< 50 ug/L	50 ug/L	0
2-Methyl-4,6-dinitrophenol	< 50 ug/L	50 ug/L	0
n-Nitrosodiphenylamine	< 50 ug/L	50 ug/L	0
1,2-Diphenylhydrazine	< 50 ug/L	50 ug/L	0
4-Bromophenylphenylether	< 50 ug/L	50 ug/L	0
Hexachlorobenzene	< 50 ug/L	50 ug/L	0
Pentachlorophenol	< 50 ug/L	50 ug/L	0
Phenanthrene	< 50 ug/L	50 ug/L	0
Anthracene	< 50 ug/L	50 ug/L	0
di-n-Butylphthalate	< 50 ug/L	50 ug/L	0
Fluoranthene	< 50 ug/L	50 ug/L	0
Benzidine	< 250 ug/L	250 ug/L	0
Pyrene	< 50 ug/L	50 ug/L	0
Butylbenzylphthalate	< 50 ug/L	50 ug/L	0
3,3-Dichlorobenzidine	< 50 ug/L	50 ug/L	0
Benzo(a)anthracene	< 50 ug/L	50 ug/L	0
Chrysene	< 50 ug/L	50 ug/L	0
bis(2-Ethylhexyl)phthalate	< 50 ug/L	50 ug/L	0
di-n-Octylphthalate	< 50 ug/L	50 ug/L	0
Benzo(b)fluoranthene	< 50 ug/L	50 ug/L	0
Benzo(k)fluoranthene	< 50 ug/L	50 ug/L	0
Benzo(a)pyrene	< 50 ug/L	50 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 50 ug/L	50 ug/L	0
Dibenzo(a,h)anthracene	< 50 ug/L	50 ug/L	0
Benzo(g,h,i)perylene	< 50 ug/L	50 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only
- 6 - Holding Time or Analytical Time exceeded (See Case Narrative for additional information)

*Troy Whisenant* 7/20/99  
Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.31	2-Fluorophenol	21.6%	Nitrobenzene-D5	17.7%
Naphthalene-D8	16.34	Phenol	0.4%	2-Fluorobiphenyl	20.1%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	20.1%	Terphenyl-D14	19.1%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.79				

**USEPA--8270 G.C. Conditions**  
 25m x 0.2mm x 0.33um Ultra Two  
 Crosslinked 5% Methyl Silicon Column  
 He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: **99014014** Job #: **99-JUN-0042** Customer ID: G. FRANKLIN

Sample Description: **MW-7**

Collection Date: 6/15/99

Location: MW-67 7/19/99  
JW

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	470 ug/L	100 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	25 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	20 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	13 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	11 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	15 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014014</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-7</b>		
Collection Date: <b>6/15/99</b>	Location: <b>MW-7 TW 7/15/99</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	17 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant 7/16/99*  
Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis		
					Library Match	Manual Interpretation	Scan Number
No TIC's Identified							

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.31	2-Fluorophenol	8.5%	Nitrobenzene-D5	7.9%
Naphthalene-D8	16.33	Phenol	0.0%	2-Fluorobiphenyl	8.9%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	9.0%	Terphenyl-D14	6.5%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.79				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014016</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-8</b>		
Collection Date: <b>6/15/99</b>	Location: <b>MW-8</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 100 ug/L	100 ug/L	0
n-Nitrosodimethylamine	< 100 ug/L	100 ug/L	0
Aniline	< 100 ug/L	100 ug/L	0
Phenol	< 100 ug/L	100 ug/L	0
bis(2-Chloroethyl)ether	< 100 ug/L	100 ug/L	0
2-Chlorophenol	< 100 ug/L	100 ug/L	0
1,3-Dichlorobenzene	< 100 ug/L	100 ug/L	0
1,4-Dichlorobenzene	< 100 ug/L	100 ug/L	0
Benzyl alcohol	< 100 ug/L	100 ug/L	0
1,2-Dichlorobenzene	< 100 ug/L	100 ug/L	0
2-Methylphenol	< 100 ug/L	100 ug/L	0
bis(2-Chloroisopropyl)ether	< 100 ug/L	100 ug/L	0
4-Methylphenol	< 100 ug/L	100 ug/L	0
Hexachloroethane	< 100 ug/L	100 ug/L	0
n-Nitrosodi-n-propylamine	< 100 ug/L	100 ug/L	0
Nitrobenzene	< 100 ug/L	100 ug/L	0
Isophorone	< 100 ug/L	100 ug/L	0
2-Nitrophenol	< 100 ug/L	100 ug/L	0
2,4-Dimethylphenol	110 ug/L	100 ug/L	0
bis(2-Chloroethoxy)methane	< 100 ug/L	100 ug/L	0
2,4-Dichlorophenol	< 100 ug/L	100 ug/L	0
Benzoic acid	< 100 ug/L	100 ug/L	0
1,2,4-Trichlorobenzene	< 100 ug/L	100 ug/L	0
Naphthalene	1900 ug/L	1000 ug/L	0
4-Chloroaniline	< 100 ug/L	100 ug/L	0
Hexachlorobutadiene	< 100 ug/L	100 ug/L	0
4-Chloro-3-methylphenol	< 100 ug/L	100 ug/L	0
2-Methylnaphthalene	210 ug/L	100 ug/L	0
Hexachlorocyclopentadiene	< 100 ug/L	100 ug/L	0
2,4,6-Trichlorophenol	< 100 ug/L	100 ug/L	0
2,4,5-Trichlorophenol	< 100 ug/L	100 ug/L	0
2-Chloronaphthalene	< 100 ug/L	100 ug/L	0
2-Nitroaniline	< 100 ug/L	100 ug/L	0
Dimethylphthalate	< 100 ug/L	100 ug/L	0
Acenaphthylene	< 100 ug/L	100 ug/L	0
2,6-Dinitrotoluene	< 100 ug/L	100 ug/L	0
3-Nitroaniline	< 100 ug/L	100 ug/L	0
Acenaphthene	140 ug/L	100 ug/L	0
2,4-Dinitrophenol	< 100 ug/L	100 ug/L	0
4-Nitrophenol	< 100 ug/L	100 ug/L	0
Dibenzofuran	< 100 ug/L	100 ug/L	0
2,4-Dinitrotoluene	< 100 ug/L	100 ug/L	0
Diethylphthalate	< 100 ug/L	100 ug/L	0
Fluorene	< 100 ug/L	100 ug/L	0





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014016

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-8

Collection Date: 6/15/99

Location: MW-8

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 100 ug/L	100 ug/L	0
4-Nitroaniline	< 100 ug/L	100 ug/L	0
2-Methyl-4,6-dinitrophenol	< 100 ug/L	100 ug/L	0
n-Nitrosodiphenylamine	< 100 ug/L	100 ug/L	0
1,2-Diphenylhydrazine	< 100 ug/L	100 ug/L	0
4-Bromophenylphenylether	< 100 ug/L	100 ug/L	0
Hexachlorobenzene	< 100 ug/L	100 ug/L	0
Pentachlorophenol	< 100 ug/L	100 ug/L	0
Phenanthrene	110 ug/L	100 ug/L	0
Anthracene	< 100 ug/L	100 ug/L	0
di-n-Butylphthalate	< 100 ug/L	100 ug/L	0
Fluoranthene	< 100 ug/L	100 ug/L	0
Benzidine	< 500 ug/L	500 ug/L	0
Pyrene	< 100 ug/L	100 ug/L	0
Butylbenzylphthalate	< 100 ug/L	100 ug/L	0
3,3-Dichlorobenzidine	< 100 ug/L	100 ug/L	0
Benzo(a)anthracene	< 100 ug/L	100 ug/L	0
Chrysene	< 100 ug/L	100 ug/L	0
bis(2-Ethylhexyl)phthalate	310 ug/L	100 ug/L	0
di-n-Octylphthalate	< 100 ug/L	100 ug/L	0
Benzo(b)fluoranthene	< 100 ug/L	100 ug/L	0
Benzo(k)fluoranthene	< 100 ug/L	100 ug/L	0
Benzo(a)pyrene	< 100 ug/L	100 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 100 ug/L	100 ug/L	0
Dibenzo(a,h)anthracene	< 100 ug/L	100 ug/L	0
Benzo(g,h,i)perylene	< 100 ug/L	100 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

6 - Holding Time or Analytical Time exceeded  
(See Case Narrative for additional information)

*Iroy Whisenant* 7/19/99  
Date Verified and Approved By, Date

7/19/99

22U07.D

FIELD ID::

BRAMLETT ST- MW-8

LAB ID::

99-JUN-0042 // 99014016 // (1:10)

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.31	2-Fluorophenol	8.0%	Nitrobenzene-D5	8.6%
Naphthalene-D8	16.34	Phenol	0.3%	2-Fluorobiphenyl	9.4%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	9.7%	Terphenyl-D14	9.7%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.80				

**USEPA-8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
 Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
 to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014017

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-9

Collection Date: 6/15/99

Location: MW-9

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	54 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	17 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	18 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	14 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	14 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014017

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-9

Collection Date: 6/15/99

Location: MW-9

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	26 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date

Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.32	2-Fluorophenol	105.4%	Nitrobenzene-D5	89.3%
Naphthalene-D8	16.33	Phenol	0.0%	2-Fluorobiphenyl	87.9%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	97.4%	Terphenyl-D14	100.1%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.80				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014018

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-10

Collection Date: 6/15/99

Location: MW-10

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014018</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-10</b>		
Collection Date: <b>6/15/99</b>	Location: <b>MW-10</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
 Data Verified and Approved By, Date

## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.32	2-Fluorophenol	96.6%	Nitrobenzene-D5	83.0%
Naphthalene-D8	16.32	Phenol	0.0%	2-Fluorobiphenyl	82.3%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	97.5%	Terphenyl-D14	95.3%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.80				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
to 300°C (8.0°C/min), hold 300° for 21 min.





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014019

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-11

Collection Date: 6/15/99

Location: MW-11

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014019

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-11

Collection Date: 6/15/99

Location: MW-11

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	1
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	14 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant 7/16/99*  
Date Verified and Approved By, Date

## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration ( $\mu\text{g/L}$ )	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.32	2-Fluorophenol	79.5%	Nitrobenzene-D5	94.6%
Naphthalene-D8	16.33	Phenol	0.0%	2-Fluorobiphenyl	90.2%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	101.8%	Terphenyl-D14	98.3%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.80				

### USEPA--8270 G.C. Conditions

25m x 0.2mm x 0.33 $\mu\text{m}$  Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014020

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-12

Collection Date: 6/15/99

Location: MW-12

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014020

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-12

Collection Date: 6/15/99

Location: MW-12

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	1
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	16 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.31	2-Fluorophenol	112.2%	Nitrobenzene-D5	92.1%
Naphthalene-D8	16.32	Phenol	0.0%	2-Fluorobiphenyl	103.3%
Acenaphthene-D10	21.97	2,4,6-Tribromophenol	60.5%	Terphenyl-D14	101.8%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.79				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014021</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-13</b>		
Collection Date: <b>6/15/99</b>	Location: MW-13	Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014021

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-13

Collection Date: 6/15/99

Location: MW-13

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date



## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.30	2-Fluorophenol	98.6%	Nitrobenzene-D5	80.3%
Naphthalene-D8	16.32	Phenol	0.0%	2-Fluorobiphenyl	82.5%
Acenaphthene-D10	21.97	2,4,6-Tribromophenol	62.4%	Terphenyl-D14	127.6%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.78				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID # : <b>99014022</b>	Job # : <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-14</b>		
Collection Date: <b>6/15/99</b>	Location : <b>MW-14</b>	Type of Sample : <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014022

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-14

Collection Date: 6/15/99

Location: MW-14

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: **99014023** Job #: **99-JUN-0042** Customer ID: G. FRANKLIN

Sample Description: **MW-15**

Collection Date: 6/16/99

Location: MW-15

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014023

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-15

Collection Date: 6/16/99

Location: MW-15

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

*Tentatively Identified Compounds Report*

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			
					Library Match	Manual Interpretation	RT	Scan Number
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	85.1%	Nitrobenzene-D5	88.7%
Naphthalene-D8	15.62	Phenol	14.0%	2-Fluorobiphenyl	79.8%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	92.0%	Terphenyl-D14	88.0%
Phenanthrene-D10	25.92				
Chrysene-D12	34.43				
Perylene-D12	39.18				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014024</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-16</b>		
Collection Date: 6/16/99	Location: MW-16	Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014024

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-16

Collection Date: 6/16/99

Location: MW-16

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzdine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date



### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			
					Library Match	Manual Interpretation	RT	Scan Number
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	69.8%	Nitrobenzene-D5	73.0%
Naphthalene-D8	15.62	Phenol	60.0%	2-Fluorobiphenyl	59.8%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	71.3%	Terphenyl-D14	71.6%
Phenanthrene-D10	25.92				
Chrysene-D12	34.43				
Perylene-D12	39.19				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: **99014025**

Job #: **99-JUN-0042**

Customer ID: G. FRANKLIN

Sample Description: **MW-17**

Collection Date: **6/15/99**

Location: **MW-17**

Type of Sample: **GROUNDWATER**

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 1000 ug/L	1000 ug/L	0
n-Nitrosodimethylamine	< 1000 ug/L	1000 ug/L	0
Aniline	< 1000 ug/L	1000 ug/L	0
Phenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethyl)ether	< 1000 ug/L	1000 ug/L	0
2-Chlorophenol	< 1000 ug/L	1000 ug/L	0
1,3-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
1,4-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
Benzyl alcohol	< 1000 ug/L	1000 ug/L	0
1,2-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
2-Methylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroisopropyl)ether	< 1000 ug/L	1000 ug/L	0
4-Methylphenol	< 1000 ug/L	1000 ug/L	0
Hexachloroethane	< 1000 ug/L	1000 ug/L	0
n-Nitrosodi-n-propylamine	< 1000 ug/L	1000 ug/L	0
Nitrobenzene	< 1000 ug/L	1000 ug/L	0
Isophorone	< 1000 ug/L	1000 ug/L	0
2-Nitrophenol	< 1000 ug/L	1000 ug/L	0
2,4-Dimethylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethoxy)methane	< 1000 ug/L	1000 ug/L	0
2,4-Dichlorophenol	< 1000 ug/L	1000 ug/L	0
Benzoic acid	< 1000 ug/L	1000 ug/L	0
1,2,4-Trichlorobenzene	< 1000 ug/L	1000 ug/L	0
Naphthalene	< 1000 ug/L	1000 ug/L	0
4-Chloroaniline	< 1000 ug/L	1000 ug/L	0
Hexachlorobutadiene	< 1000 ug/L	1000 ug/L	0
4-Chloro-3-methylphenol	< 1000 ug/L	1000 ug/L	0
2-Methylnaphthalene	1000 ug/L	1000 ug/L	0
Hexachlorocyclopentadiene	< 1000 ug/L	1000 ug/L	0
2,4,6-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2,4,5-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2-Chloronaphthalene	< 1000 ug/L	1000 ug/L	0
2-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Dimethylphthalate	< 1000 ug/L	1000 ug/L	0
Acenaphthylene	< 1000 ug/L	1000 ug/L	0
2,6-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
3-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Acenaphthene	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrophenol	< 1000 ug/L	1000 ug/L	0
4-Nitrophenol	< 1000 ug/L	1000 ug/L	0
Dibenzofuran	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
Diethylphthalate	< 1000 ug/L	1000 ug/L	0
Fluorene	< 1000 ug/L	1000 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014025</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-17</b>		
Collection Date: <b>6/15/99</b>	Location: <b>MW-17</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 1000 ug/L	1000 ug/L	0
4-Nitroaniline	< 1000 ug/L	1000 ug/L	0
2-Methyl-4,6-dinitrophenol	< 1000 ug/L	1000 ug/L	0
n-Nitrosodiphenylamine	< 1000 ug/L	1000 ug/L	0
1,2-Diphenylhydrazine	< 1000 ug/L	1000 ug/L	0
4-Bromophenylphenylether	< 1000 ug/L	1000 ug/L	0
Hexachlorobenzene	< 1000 ug/L	1000 ug/L	0
Pentachlorophenol	< 1000 ug/L	1000 ug/L	0
Phenanthrene	< 1000 ug/L	1000 ug/L	0
Anthracene	< 1000 ug/L	1000 ug/L	0
di-n-Butylphthalate	< 1000 ug/L	1000 ug/L	0
Fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzidine	< 5000 ug/L	5000 ug/L	0
Pyrene	< 1000 ug/L	1000 ug/L	0
Butylbenzylphthalate	< 1000 ug/L	1000 ug/L	0
3,3-Dichlorobenzidine	< 1000 ug/L	1000 ug/L	0
Benzo(a)anthracene	< 1000 ug/L	1000 ug/L	0
Chrysene	< 1000 ug/L	1000 ug/L	0
bis(2-Ethylhexyl)phthalate	< 1000 ug/L	1000 ug/L	0
di-n-Octylphthalate	< 1000 ug/L	1000 ug/L	0
Benzo(b)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(k)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(a)pyrene	< 1000 ug/L	1000 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 1000 ug/L	1000 ug/L	0
Dibenzo(a,h)anthracene	< 1000 ug/L	1000 ug/L	0
Benzo(g,h,i)perylene	< 1000 ug/L	1000 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only
- 6 - Holding Time or Analytical Time exceeded  
(See Case Narrative for additional information)

*Troy W. Lisenant* 07/99  
 Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	0.9%	Nitrobenzene-D5	0.7%
Naphthalene-D8	15.62	Phenol	0.7%	2-Fluorobiphenyl	0.7%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	0.0%	Terphenyl-D14	0.0%
Phenanthrene-D10	25.94				
Chrysene-D12	34.43				
Perylene-D12	39.19				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
 Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014026</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-18</b>		
Collection Date: <b>6/16/99</b>	Location: <b>MW-18</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014026</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-18</b>		
Collection Date: <b>6/16/99</b>	Location: <b>MW-18</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Duke Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	72.3%	Nitrobenzene-D5	75.4%
Naphthalene-D8	15.62	Phenol	65.0%	2-Fluorobiphenyl	66.4%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	82.2%	Terphenyl-D14	76.9%
Phenanthrene-D10	25.93				
Chrysene-D12	34.44				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

A Duke Energy Company

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014027

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-19

Collection Date: 6/16/99

Location: MW-19

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 1000 ug/L	1000 ug/L	0
n-Nitrosodimethylamine	< 1000 ug/L	1000 ug/L	0
Aniline	< 1000 ug/L	1000 ug/L	0
Phenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethyl)ether	< 1000 ug/L	1000 ug/L	0
2-Chlorophenol	< 1000 ug/L	1000 ug/L	0
1,3-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
1,4-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
Benzyl alcohol	< 1000 ug/L	1000 ug/L	0
1,2-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
2-Methylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroisopropyl)ether	< 1000 ug/L	1000 ug/L	0
4-Methylphenol	< 1000 ug/L	1000 ug/L	0
Hexachloroethane	< 1000 ug/L	1000 ug/L	0
n-Nitrosodi-n-propylamine	< 1000 ug/L	1000 ug/L	0
Nitrobenzene	< 1000 ug/L	1000 ug/L	0
Isophorone	< 1000 ug/L	1000 ug/L	0
2-Nitrophenol	< 1000 ug/L	1000 ug/L	0
2,4-Dimethylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethoxy)methane	< 1000 ug/L	1000 ug/L	0
2,4-Dichlorophenol	< 1000 ug/L	1000 ug/L	0
Benzoic acid	< 1000 ug/L	1000 ug/L	0
1,2,4-Trichlorobenzene	< 1000 ug/L	1000 ug/L	0
Naphthalene	4700 ug/L	1000 ug/L	0
4-Chloroaniline	< 1000 ug/L	1000 ug/L	0
Hexachlorobutadiene	< 1000 ug/L	1000 ug/L	0
4-Chloro-3-methylphenol	< 1000 ug/L	1000 ug/L	0
2-Methylnaphthalene	1500 ug/L	1000 ug/L	0
Hexachlorocyclopentadiene	< 1000 ug/L	1000 ug/L	0
2,4,6-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2,4,5-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2-Chloronaphthalene	< 1000 ug/L	1000 ug/L	0
2-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Dimethylphthalate	< 1000 ug/L	1000 ug/L	0
Acenaphthylene	< 1000 ug/L	1000 ug/L	0
2,6-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
3-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Acenaphthene	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrophenol	< 1000 ug/L	1000 ug/L	0
4-Nitrophenol	< 1000 ug/L	1000 ug/L	0
Dibenzofuran	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
Diethylphthalate	< 1000 ug/L	1000 ug/L	0
Fluorene	< 1000 ug/L	1000 ug/L	0





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014027

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-19

Collection Date: 6/16/99

Location: MW-19

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 1000 ug/L	1000 ug/L	0
4-Nitroaniline	< 1000 ug/L	1000 ug/L	0
2-Methyl-4,6-dinitrophenol	< 1000 ug/L	1000 ug/L	0
n-Nitrosodiphenylamine	< 1000 ug/L	1000 ug/L	0
1,2-Diphenylhydrazine	< 1000 ug/L	1000 ug/L	0
4-Bromophenylphenylether	< 1000 ug/L	1000 ug/L	0
Hexachlorobenzene	< 1000 ug/L	1000 ug/L	0
Pentachlorophenol	< 1000 ug/L	1000 ug/L	0
Phenanthrene	< 1000 ug/L	1000 ug/L	0
Anthracene	< 1000 ug/L	1000 ug/L	0
di-n-Butylphthalate	< 1000 ug/L	1000 ug/L	0
Fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzidine	< 5000 ug/L	5000 ug/L	0
Pyrene	< 1000 ug/L	1000 ug/L	0
Butylbenzylphthalate	< 1000 ug/L	1000 ug/L	0
3,3-Dichlorobenzidine	< 1000 ug/L	1000 ug/L	0
Benzo(a)anthracene	< 1000 ug/L	1000 ug/L	0
Chrysene	< 1000 ug/L	1000 ug/L	0
bis(2-Ethylhexyl)phthalate	< 1000 ug/L	1000 ug/L	0
di-n-Octylphthalate	< 1000 ug/L	1000 ug/L	0
Benzo(b)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(k)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(a)pyrene	< 1000 ug/L	1000 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 1000 ug/L	1000 ug/L	0
Dibenzo(a,h)anthracene	< 1000 ug/L	1000 ug/L	0
Benzo(g,h,i)perylene	< 1000 ug/L	1000 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only
- 6 - Holding Time or Analytical Time exceeded  
(See Case Narrative for additional information)

*Troy Whisenant* 7/20/99  
Date Verified and Approved By, Date

*Tentatively Identified Compounds Report*

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	0.7%	Nitrobenzene-D5	0.6%
Naphthalene-D8	15.62	Phenol	0.7%	2-Fluorobiphenyl	0.8%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	0.0%	Terphenyl-D14	0.8%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.19				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014028</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-20</b>		
Collection Date: <b>6/15/99</b>	Location: <b>MW-20</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 1000 ug/L	1000 ug/L	0
n-Nitrosodimethylamine	< 1000 ug/L	1000 ug/L	0
Aniline	< 1000 ug/L	1000 ug/L	0
Phenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethyl)ether	< 1000 ug/L	1000 ug/L	0
2-Chlorophenol	< 1000 ug/L	1000 ug/L	0
1,3-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
1,4-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
Benzyl alcohol	< 1000 ug/L	1000 ug/L	0
1,2-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
2-Methylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroisopropyl)ether	< 1000 ug/L	1000 ug/L	0
4-Methylphenol	< 1000 ug/L	1000 ug/L	0
Hexachloroethane	< 1000 ug/L	1000 ug/L	0
n-Nitrosodi-n-propylamine	< 1000 ug/L	1000 ug/L	0
Nitrobenzene	< 1000 ug/L	1000 ug/L	0
Isophorone	< 1000 ug/L	1000 ug/L	0
2-Nitrophenol	< 1000 ug/L	1000 ug/L	0
2,4-Dimethylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethoxy)methane	< 1000 ug/L	1000 ug/L	0
2,4-Dichlorophenol	< 1000 ug/L	1000 ug/L	0
Benzoic acid	< 1000 ug/L	1000 ug/L	0
1,2,4-Trichlorobenzene	5600 ug/L	1000 ug/L	0
Naphthalene	< 1000 ug/L	1000 ug/L	0
4-Chloroaniline	< 1000 ug/L	1000 ug/L	0
Hexachlorobutadiene	< 1000 ug/L	1000 ug/L	0
4-Chloro-3-methylphenol	< 1000 ug/L	1000 ug/L	0
2-Methylnaphthalene	1300 ug/L	1000 ug/L	0
Hexachlorocyclopentadiene	< 1000 ug/L	1000 ug/L	0
2,4,6-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2,4,5-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2-Chloronaphthalene	< 1000 ug/L	1000 ug/L	0
2-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Dimethylphthalate	< 1000 ug/L	1000 ug/L	0
Acenaphthylene	< 1000 ug/L	1000 ug/L	0
2,6-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
3-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Acenaphthene	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrophenol	< 1000 ug/L	1000 ug/L	0
4-Nitrophenol	< 1000 ug/L	1000 ug/L	0
Dibenzofuran	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
Diethylphthalate	< 1000 ug/L	1000 ug/L	0
Fluorene	< 1000 ug/L	1000 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014028

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-20

Collection Date: 6/15/99

Location: MW-20

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 1000 ug/L	1000 ug/L	0
4-Nitroaniline	< 1000 ug/L	1000 ug/L	0
2-Methyl-4,6-dinitrophenol	< 1000 ug/L	1000 ug/L	0
n-Nitrosodiphenylamine	< 1000 ug/L	1000 ug/L	0
1,2-Diphenylhydrazine	< 1000 ug/L	1000 ug/L	0
4-Bromophenylphenylether	< 1000 ug/L	1000 ug/L	0
Hexachlorobenzene	< 1000 ug/L	1000 ug/L	0
Pentachlorophenol	< 1000 ug/L	1000 ug/L	0
Phenanthrene	< 1000 ug/L	1000 ug/L	0
Anthracene	< 1000 ug/L	1000 ug/L	0
di-n-Butylphthalate	< 1000 ug/L	1000 ug/L	0
Fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzidine	< 5000 ug/L	5000 ug/L	0
Pyrene	< 1000 ug/L	1000 ug/L	0
Butylbenzylphthalate	< 1000 ug/L	1000 ug/L	0
3,3-Dichlorobenzidine	< 1000 ug/L	1000 ug/L	0
Benzo(a)anthracene	< 1000 ug/L	1000 ug/L	0
Chrysene	< 1000 ug/L	1000 ug/L	0
bis(2-Ethylhexyl)phthalate	< 1000 ug/L	1000 ug/L	0
di-n-Octylphthalate	< 1000 ug/L	1000 ug/L	0
Benzo(b)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(k)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(a)pyrene	< 1000 ug/L	1000 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 1000 ug/L	1000 ug/L	0
Dibenzo(a,h)anthracene	< 1000 ug/L	1000 ug/L	0
Benzo(g,h,i)perylene	< 1000 ug/L	1000 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

6 - Holding Time or Analytical Time exceeded  
(See Case Narrative for additional information)

*Troy Whisenant* 7/20/99  
Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.30	2-Fluorophenol	0.5%	Nitrobenzene-D5	0.7%
Naphthalene-D8	16.32	Phenol	0.0%	2-Fluorobiphenyl	0.9%
Acenaphthene-D10	21.97	2,4,6-Tribromophenol	0.6%	Terphenyl-D14	1.0%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.78				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014035

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-21

Collection Date: 6/16/99

Location: MW-21

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 500 ug/L	500 ug/L	0
n-Nitrosodimethylamine	< 500 ug/L	500 ug/L	0
Aniline	< 500 ug/L	500 ug/L	0
Phenol	< 500 ug/L	500 ug/L	0
bis(2-Chloroethyl)ether	< 500 ug/L	500 ug/L	0
2-Chlorophenol	< 500 ug/L	500 ug/L	0
1,3-Dichlorobenzene	< 500 ug/L	500 ug/L	0
1,4-Dichlorobenzene	< 500 ug/L	500 ug/L	0
Benzyl alcohol	< 500 ug/L	500 ug/L	0
1,2-Dichlorobenzene	< 500 ug/L	500 ug/L	0
2-Methylphenol	< 500 ug/L	500 ug/L	0
bis(2-Chloroisopropyl)ether	< 500 ug/L	500 ug/L	0
4-Methylphenol	550 ug/L	500 ug/L	0
Hexachloroethane	< 500 ug/L	500 ug/L	0
n-Nitrosodi-n-propylamine	< 500 ug/L	500 ug/L	0
Nitrobenzene	< 500 ug/L	500 ug/L	0
Isophorone	< 500 ug/L	500 ug/L	0
2-Nitrophenol	< 500 ug/L	500 ug/L	0
2,4-Dimethylphenol	1100 ug/L	500 ug/L	0
bis(2-Chloroethoxy)methane	< 500 ug/L	500 ug/L	0
2,4-Dichlorophenol	< 500 ug/L	500 ug/L	0
Benzoic acid	< 500 ug/L	500 ug/L	0
1,2,4-Trichlorobenzene	< 500 ug/L	500 ug/L	0
Naphthalene	3500 ug/L	500 ug/L	0
4-Chloroaniline	< 500 ug/L	500 ug/L	0
Hexachlorobutadiene	< 500 ug/L	500 ug/L	0
4-Chloro-3-methylphenol	< 500 ug/L	500 ug/L	0
2-Methylnaphthalene	600 ug/L	500 ug/L	0
Hexachlorocyclopentadiene	< 500 ug/L	500 ug/L	0
2,4,6-Trichlorophenol	< 500 ug/L	500 ug/L	0
2,4,5-Trichlorophenol	< 500 ug/L	500 ug/L	0
2-Chloronaphthalene	< 500 ug/L	500 ug/L	0
2-Nitroaniline	< 500 ug/L	500 ug/L	0
Dimethylphthalate	< 500 ug/L	500 ug/L	0
Acenaphthylene	< 500 ug/L	500 ug/L	0
2,6-Dinitrotoluene	< 500 ug/L	500 ug/L	0
3-Nitroaniline	< 500 ug/L	500 ug/L	0
Acenaphthene	< 500 ug/L	500 ug/L	0
2,4-Dinitrophenol	< 500 ug/L	500 ug/L	0
4-Nitrophenol	< 500 ug/L	500 ug/L	0
Dibenzofuran	< 500 ug/L	500 ug/L	0
2,4-Dinitrotoluene	< 500 ug/L	500 ug/L	0
Diethylphthalate	< 500 ug/L	500 ug/L	0
Fluorene	< 500 ug/L	500 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014035

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-21

Collection Date: 6/16/99

Location: MW-21

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 500 ug/L	500 ug/L	0
4-Nitroaniline	< 500 ug/L	500 ug/L	0
2-Methyl-4,6-dinitrophenol	< 500 ug/L	500 ug/L	0
n-Nitrosodiphenylamine	< 500 ug/L	500 ug/L	0
1,2-Diphenylhydrazine	< 500 ug/L	500 ug/L	0
4-Bromophenylphenylether	< 500 ug/L	500 ug/L	0
Hexachlorobenzene	< 500 ug/L	500 ug/L	0
Pentachlorophenol	< 500 ug/L	500 ug/L	0
Phenanthrene	< 500 ug/L	500 ug/L	0
Anthracene	< 500 ug/L	500 ug/L	0
di-n-Butylphthalate	< 500 ug/L	500 ug/L	0
Fluoranthene	< 500 ug/L	500 ug/L	0
Benzdine	< 2500 ug/L	2500 ug/L	1
Pyrene	< 500 ug/L	500 ug/L	0
Butylbenzylphthalate	< 500 ug/L	500 ug/L	0
3,3-Dichlorobenzidine	< 500 ug/L	500 ug/L	0
Benzo(a)anthracene	< 500 ug/L	500 ug/L	0
Chrysene	< 500 ug/L	500 ug/L	0
bis(2-Ethylhexyl)phthalate	< 500 ug/L	500 ug/L	0
di-n-Octylphthalate	< 500 ug/L	500 ug/L	0
Benzo(b)fluoranthene	< 500 ug/L	500 ug/L	0
Benzo(k)fluoranthene	< 500 ug/L	500 ug/L	0
Benzo(a)pyrene	< 500 ug/L	500 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 500 ug/L	500 ug/L	0
Dibenzo(a,h)anthracene	< 500 ug/L	500 ug/L	0
Benzo(g,h,i)perylene	< 500 ug/L	500 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisman* 7/16/99

Data Verified and Approved By, Date

TW  
7/19/99

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.30	2-Fluorophenol	1.9%	Nitrobenzene-D5	1.8%
Naphthalene-D8	16.32	Phenol	0.9%	2-Fluorobiphenyl	1.8%
Acenaphthene-D10	21.97	2,4,6-Tribromophenol	1.1%	Terphenyl-D14	1.0%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.78				

**USEPA--8270 G.C. Conditions**  
  
25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column  
  
He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99015516

Job #: 99-JUN-0042

Customer ID: G FRANKLIN

Sample Description: MW-22 RESAMPLE

Collection Date: 6/17/99

Location: MW-22

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99015516

Job #: 99-JUN-0042

Customer ID: G FRANKLIN

Sample Description: MW-22 RESAMPLE

Collection Date: 6/17/99

Location: MW-22

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzdine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Doug Whisenant 7/16/99*  
Data Verified and Approved By, Date

## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.28	2-Fluorophenol	90.2%	Nitrobenzene-D5	99.6%
Naphthalene-D8	16.29	Phenol	81.0%	2-Fluorobiphenyl	52.5%
Acenaphthene-D10	21.94	2,4,6-Tribromophenol	81.9%	Terphenyl-D14	66.6%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.72				

**USEPA--8270 G.C. Conditions**  
  
25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column  
  
He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014038</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-23</b>		
Collection Date: <b>6/14/99</b>	Location: <b>MW-23 11/1/99</b>	Type of Sample: <b>GROUNDWATER</b>
<b>SVOC IN WATER BY GC/MS - 8270</b>		

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol ,	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014038

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-23

Collection Date: 6/14/99

Location: MW-2A3 RW 7/16/99

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.32	2-Fluorophenol	106.1%	Nitrobenzene-D5	97.9%
Naphthalene-D8	16.32	Phenol	0.0%	2-Fluorobiphenyl	81.8%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	72.7%	Terphenyl-D14	63.0%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.80				

### USEPA--8270 G.C. Conditions

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014037</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-24</b>		
Collection Date: <b>6/14/99</b>	Location: <b>MW-24<sup>14</sup> TOW 7/15/99</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014037</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-24</b>	Collection Date: <b>6/14/99</b>	Location: <b>MW-254 TW 7/16/99</b>
		Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzdine	< 50 ug/L	50 ug/L	1
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	32 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

**Description of Flags:**

0 - No Discrepancies Noted	3 - Detected in Blank
1 - See Case Narrative	4 - Estimated Concentration also Detected in Blank
2 - Estimated Concentration	5 - For Information Only

*Troy Whisenant 7/16/99*  
Data Verified and Approved By, Date



### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.31	2-Fluorophenol	69.4%	Nitrobenzene-D5	83.9%
Naphthalene-D8	16.32	Phenol	0.4%	2-Fluorobiphenyl	73.9%
Acenaphthene-D10	21.97	2,4,6-Tribromophenol	70.2%	Terphenyl-D14	65.8%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.78				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C  
to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

A Duke Energy Company

Sample ID #: 99014039

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-25

Collection Date: 6/15/99

Location: MW-25

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014039

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-25

Collection Date: 6/15/99

Location: MW-25

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

*Tentatively Identified Compounds Report*

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	60.2%	Nitrobenzene-D5	56.3%
Naphthalene-D8	15.62	Phenol	52.0%	2-Fluorobiphenyl	49.6%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	64.0%	Terphenyl-D14	73.9%
Phenanthrene-D10	25.93				
Chrysene-D12	34.44				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014040</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>SW-1</b>		
Collection Date: <b>6/17/99</b>	Location: <b>SW1</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014040

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-1

Collection Date: 6/17/99

Location: SW1

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	43.2%	Nitrobenzene-D5	48.8%
Naphthalene-D8	15.62	Phenol	40.0%	2-Fluorobiphenyl	45.7%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	57.4%	Terphenyl-D14	48.2%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.20				

USEPA--8270 G.C. Conditions

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: **99014041**

Job #: **99-JUN-0042**

Customer ID: G. FRANKLIN

Sample Description: **SW-2**

Collection Date: **6/17/99**

Location: **SW2**

Type of Sample: **GROUNDWATER**

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014041

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-2

Collection Date: 6/17/99

Location: SW2

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzdine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	72.9%	Nitrobenzene-D5	75.1%
Naphthalene-D8	15.62	Phenol	63.0%	2-Fluorobiphenyl	64.8%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	80.8%	Terphenyl-D14	91.0%
Phenanthrene-D10	25.94				
Chrysene-D12	34.43				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
 Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014042

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-3

Collection Date: 6/17/99

Location: SW3

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014042

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-3

Collection Date: 6/17/99

Location: SW3

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant 7/16/99*  
Data Verified and Approved By, Date

## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	61.7%	Nitrobenzene-D5	59.0%
Naphthalene-D8	15.62	Phenol	54.0%	2-Fluorobiphenyl	53.2%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	80.2%	Terphenyl-D14	86.0%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

 25m x 0.2mm x 0.33um Ultra Two  
 Crosslinked 5% Methyl Silicon Column

 He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014043

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-4

Collection Date: 6/17/99

Location: SW4

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014043

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-4

Collection Date: 6/17/99

Location: SW4

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzdine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Droy Whisenant* 7/16/99  
Data Verified and Approved By, Date

Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis		
					Library Match	Manual Interpretation	Scan Number
NO TIC'S IDENTIFIED							

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	65.3%	Nitrobenzene-D5	68.3%
Naphthalene-D8	15.62	Phenol	56.0%	2-Fluorobiphenyl	56.2%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	74.5%	Terphenyl-D14	68.2%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: **99014046**

Job #: **99-JUN-0042**

Customer ID: G. FRANKLIN

Sample Description: **SW-5**

Collection Date: **6/17/99**

Location: **SW5**

Type of Sample: **GROUNDWATER**

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 50 ug/L	50 ug/L	1
n-Nitrosodimethylamine	< 50 ug/L	50 ug/L	1
Aniline	< 50 ug/L	50 ug/L	1
Phenol	< 50 ug/L	50 ug/L	1
bis(2-Chloroethyl)ether	< 50 ug/L	50 ug/L	1
2-Chlorophenol	< 50 ug/L	50 ug/L	1
1,3-Dichlorobenzene	< 50 ug/L	50 ug/L	1
1,4-Dichlorobenzene	< 50 ug/L	50 ug/L	1
Benzyl alcohol	< 50 ug/L	50 ug/L	1
1,2-Dichlorobenzene	< 50 ug/L	50 ug/L	1
2-Methylphenol	< 50 ug/L	50 ug/L	1
bis(2-Chloroisopropyl)ether	< 50 ug/L	50 ug/L	1
4-Methylphenol	< 50 ug/L	50 ug/L	1
Hexachloroethane	< 50 ug/L	50 ug/L	1
n-Nitrosodi-n-propylamine	< 50 ug/L	50 ug/L	1
Nitrobenzene	< 50 ug/L	50 ug/L	1
Isophorone	< 50 ug/L	50 ug/L	1
2-Nitrophenol	< 50 ug/L	50 ug/L	1
2,4-Dimethylphenol	< 50 ug/L	50 ug/L	1
bis(2-Chloroethoxy)methane	< 50 ug/L	50 ug/L	1
2,4-Dichlorophenol	< 50 ug/L	50 ug/L	1
Benzoic acid	< 50 ug/L	50 ug/L	1
1,2,4-Trichlorobenzene	< 50 ug/L	50 ug/L	1
Naphthalene	< 50 ug/L	50 ug/L	1
4-Chloroaniline	< 50 ug/L	50 ug/L	1
Hexachlorobutadiene	< 50 ug/L	50 ug/L	1
4-Chloro-3-methylphenol	< 50 ug/L	50 ug/L	1
2-Methylnaphthalene	< 50 ug/L	50 ug/L	1
Hexachlorocyclopentadiene	< 50 ug/L	50 ug/L	1
2,4,6-Trichlorophenol	< 50 ug/L	50 ug/L	1
2,4,5-Trichlorophenol	< 50 ug/L	50 ug/L	1
2-Chloronaphthalene	< 50 ug/L	50 ug/L	1
2-Nitroaniline	< 50 ug/L	50 ug/L	1
Dimethylphthalate	< 50 ug/L	50 ug/L	1
Acenaphthylene	< 50 ug/L	50 ug/L	1
2,6-Dinitrotoluene	< 50 ug/L	50 ug/L	1
3-Nitroaniline	< 50 ug/L	50 ug/L	1
Acenaphthene	< 50 ug/L	50 ug/L	1
2,4-Dinitrophenol	< 50 ug/L	50 ug/L	1
4-Nitrophenol	< 50 ug/L	50 ug/L	1
Dibenzofuran	< 50 ug/L	50 ug/L	1
2,4-Dinitrotoluene	< 50 ug/L	50 ug/L	1
Diethylphthalate	< 50 ug/L	50 ug/L	1
Fluorene	< 50 ug/L	50 ug/L	1



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014046

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-5

Collection Date: 6/17/99

Location: SW5

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 50 ug/L	50 ug/L	1
4-Nitroaniline	< 50 ug/L	50 ug/L	1
2-Methyl-4,6-dinitrophenol	< 50 ug/L	50 ug/L	1
n-Nitrosodiphenylamine	< 50 ug/L	50 ug/L	1
1,2-Diphenylhydrazine	< 50 ug/L	50 ug/L	1
4-Bromophenylphenylether	< 50 ug/L	50 ug/L	1
Hexachlorobenzene	< 50 ug/L	50 ug/L	1
Pentachlorophenol	< 50 ug/L	50 ug/L	1
Phenanthrene	< 50 ug/L	50 ug/L	1
Anthracene	< 50 ug/L	50 ug/L	1
di-n-Butylphthalate	< 50 ug/L	50 ug/L	1
Fluoranthene	< 50 ug/L	50 ug/L	1
Benzidine	< 250 ug/L	250 ug/L	1
Pyrene	< 50 ug/L	50 ug/L	1
Butylbenzylphthalate	< 50 ug/L	50 ug/L	1
3,3-Dichlorobenzidine	< 50 ug/L	50 ug/L	1
Benzo(a)anthracene	< 50 ug/L	50 ug/L	1
Chrysene	< 50 ug/L	50 ug/L	1
bis(2-Ethylhexyl)phthalate	< 50 ug/L	50 ug/L	1
di-n-Octylphthalate	< 50 ug/L	50 ug/L	1
Benzo(b)fluoranthene	< 50 ug/L	50 ug/L	1
Benzo(k)fluoranthene	< 50 ug/L	50 ug/L	1
Benzo(a)pyrene	< 50 ug/L	50 ug/L	1
Indeno(1,2,3-c,d)pyrene	< 50 ug/L	50 ug/L	1
Dibenzo(a,h)anthracene	< 50 ug/L	50 ug/L	1
Benzo(g,h,i)perylene	< 50 ug/L	50 ug/L	1

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Irry Whisenant 7/16/99*  
Data Verified and Approved By, Date

## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.72	2-Fluorophenol	7.4%	Nitrobenzene-D5	45.7%
Naphthalene-D8	15.62	Phenol	5.7%	2-Fluorobiphenyl	36.7%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	0.0%	Terphenyl-D14	69.1%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014047</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>SW-7</b>		
Collection Date: <b>6/17/99</b>	Location: <b>SW7</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014047

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-7

Collection Date: 6/17/99

Location: SW7

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			
					Library Match	Manual Interpretation	RT	Scan Number
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	62.0%	Nitrobenzene-D5	63.0%
Naphthalene-D8	15.62	Phenol	51.0%	2-Fluorobiphenyl	51.9%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	62.4%	Terphenyl-D14	41.5%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.21				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

A Duke Energy Company

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014048

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-8

Collection Date: 6/17/99

Location: SW8

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014048

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-8

Collection Date: 6/17/99

Location: SW8

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date



## Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.72	2-Fluorophenol	68.0%	Nitrobenzene-D5	71.2%
Naphthalene-D8	15.62	Phenol	59.0%	2-Fluorobiphenyl	59.6%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	70.9%	Terphenyl-D14	50.1%
Phenanthrene-D10	25.93				
Chrysene-D12	34.44				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to  
300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014049</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>SW-9</b>		
Collection Date: <b>6/17/99</b>	Location: <b>SW9</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014049</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>SW-9</b>		
Collection Date: <b>6/17/99</b>	Location: <b>SW9</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzdine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis		
					Library Match	Manual Interpretation	Scan Number
NO TIC'S IDENTIFIED							

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	61.9%	Nitrobenzene-D5	49.1%
Naphthalene-D8	15.62	Phenol	55.0%	2-Fluorobiphenyl	44.3%
Acenaphthene-D10	21.26	2,4,6-Tribromophenol	50.3%	Terphenyl-D14	36.5%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.21				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two  
Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014050</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>SW-10</b>		
Collection Date: <b>6/17/99</b>	Location: <b>SW-10</b>	Type of Sample: <b>GROUNDWATER</b>

**SVOC IN WATER BY GC/MS - 8270**

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014050

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-10

Collection Date: 6/17/99

Location: SW-10

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant 7/16/99*  
Data Verified and Approved By, Date

*Tentatively Identified Compounds Report*

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
NO TIC'S IDENTIFIED								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	11.71	2-Fluorophenol	70.5%	Nitrobenzene-D5	69.8%
Naphthalene-D8	15.62	Phenol	60.0%	2-Fluorobiphenyl	55.6%
Acenaphthene-D10	21.25	2,4,6-Tribromophenol	66.2%	Terphenyl-D14	46.1%
Phenanthrene-D10	25.94				
Chrysene-D12	34.44				
Perylene-D12	39.20				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID # : <b>99014052</b>	Job # : <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>FIELD BLANK</b>		
Collection Date: <b>6/17/99</b>	Location : <b>FIELD BLK</b>	Type of Sample : <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Pyridine	< 10 ug/L	10 ug/L	0
n-Nitrosodimethylamine	< 10 ug/L	10 ug/L	0
Aniline	< 10 ug/L	10 ug/L	0
Phenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethyl)ether	< 10 ug/L	10 ug/L	0
2-Chlorophenol	< 10 ug/L	10 ug/L	0
1,3-Dichlorobenzene	< 10 ug/L	10 ug/L	0
1,4-Dichlorobenzene	< 10 ug/L	10 ug/L	0
Benzyl alcohol	< 10 ug/L	10 ug/L	0
1,2-Dichlorobenzene	< 10 ug/L	10 ug/L	0
2-Methylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroisopropyl)ether	< 10 ug/L	10 ug/L	0
4-Methylphenol	< 10 ug/L	10 ug/L	0
Hexachloroethane	< 10 ug/L	10 ug/L	0
n-Nitrosodi-n-propylamine	< 10 ug/L	10 ug/L	0
Nitrobenzene	< 10 ug/L	10 ug/L	0
Isophorone	< 10 ug/L	10 ug/L	0
2-Nitrophenol	< 10 ug/L	10 ug/L	0
2,4-Dimethylphenol	< 10 ug/L	10 ug/L	0
bis(2-Chloroethoxy)methane	< 10 ug/L	10 ug/L	0
2,4-Dichlorophenol	< 10 ug/L	10 ug/L	0
Benzoic acid	< 10 ug/L	10 ug/L	0
1,2,4-Trichlorobenzene	< 10 ug/L	10 ug/L	0
Naphthalene	< 10 ug/L	10 ug/L	0
4-Chloroaniline	< 10 ug/L	10 ug/L	0
Hexachlorobutadiene	< 10 ug/L	10 ug/L	0
4-Chloro-3-methylphenol	< 10 ug/L	10 ug/L	0
2-Methylnaphthalene	< 10 ug/L	10 ug/L	0
Hexachlorocyclopentadiene	< 10 ug/L	10 ug/L	0
2,4,6-Trichlorophenol	< 10 ug/L	10 ug/L	0
2,4,5-Trichlorophenol	< 10 ug/L	10 ug/L	0
2-Chloronaphthalene	< 10 ug/L	10 ug/L	0
2-Nitroaniline	< 10 ug/L	10 ug/L	0
Dimethylphthalate	< 10 ug/L	10 ug/L	0
Acenaphthylene	< 10 ug/L	10 ug/L	0
2,6-Dinitrotoluene	< 10 ug/L	10 ug/L	0
3-Nitroaniline	< 10 ug/L	10 ug/L	0
Acenaphthene	< 10 ug/L	10 ug/L	0
2,4-Dinitrophenol	< 10 ug/L	10 ug/L	0
4-Nitrophenol	< 10 ug/L	10 ug/L	0
Dibenzofuran	< 10 ug/L	10 ug/L	0
2,4-Dinitrotoluene	< 10 ug/L	10 ug/L	0
Diethylphthalate	< 10 ug/L	10 ug/L	0
Fluorene	< 10 ug/L	10 ug/L	0





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014052

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: FIELD BLANK

Collection Date: 6/17/99

Location: FIELD BLK

Type of Sample: GROUNDWATER

## SVOC IN WATER BY GC/MS - 8270

Test Code: MS8270\_W

Test Method: SW-846 8270

Analyst: RGW7794

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 10 ug/L	10 ug/L	0
4-Nitroaniline	< 10 ug/L	10 ug/L	0
2-Methyl-4,6-dinitrophenol	< 10 ug/L	10 ug/L	0
n-Nitrosodiphenylamine	< 10 ug/L	10 ug/L	0
1,2-Diphenylhydrazine	< 10 ug/L	10 ug/L	0
4-Bromophenylphenylether	< 10 ug/L	10 ug/L	0
Hexachlorobenzene	< 10 ug/L	10 ug/L	0
Pentachlorophenol	< 10 ug/L	10 ug/L	0
Phenanthrene	< 10 ug/L	10 ug/L	0
Anthracene	< 10 ug/L	10 ug/L	0
di-n-Butylphthalate	< 10 ug/L	10 ug/L	0
Fluoranthene	< 10 ug/L	10 ug/L	0
Benzidine	< 50 ug/L	50 ug/L	0
Pyrene	< 10 ug/L	10 ug/L	0
Butylbenzylphthalate	< 10 ug/L	10 ug/L	0
3,3-Dichlorobenzidine	< 10 ug/L	10 ug/L	0
Benzo(a)anthracene	< 10 ug/L	10 ug/L	0
Chrysene	< 10 ug/L	10 ug/L	0
bis(2-Ethylhexyl)phthalate	< 10 ug/L	10 ug/L	0
di-n-Octylphthalate	< 10 ug/L	10 ug/L	0
Benzo(b)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(k)fluoranthene	< 10 ug/L	10 ug/L	0
Benzo(a)pyrene	< 10 ug/L	10 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 10 ug/L	10 ug/L	0
Dibenzo(a,h)anthracene	< 10 ug/L	10 ug/L	0
Benzo(g,h,i)perylene	< 10 ug/L	10 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Drew Whisenand 7/16/99*  
Date Verified and Approved By, Date

### Tentatively Identified Compounds Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis		
					Library Match	Manual Interpretation	Scan Number
No TIC's Identified							

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.28	2-Fluorophenol	94.0%	Nitrobenzene-D5	58.2%
Naphthalene-D8	16.29	Phenol	81.0%	2-Fluorobiphenyl	88.5%
Acenaphthene-D10	21.93	2,4,6-Tribromophenol	66.2%	Terphenyl-D14	136.1%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.72				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014057</b>	Job #: <b>99-JUN-0042</b>	Customer ID:
Sample Description: <b>BRAMLETTE ST MW-3D</b>		
Collection Date: <b>6/15/99</b>	Location: <b>MW-3D</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W**

Test Method: **SW-846 8270**

Analyst: **RGW7794**

	Result	Reporting Limit	Flag
Pyridine	< 1000 ug/L	1000 ug/L	0
n-Nitrosodimethylamine	< 1000 ug/L	1000 ug/L	0
Aniline	< 1000 ug/L	1000 ug/L	0
Phenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethyl)ether	< 1000 ug/L	1000 ug/L	0
2-Chlorophenol	< 1000 ug/L	1000 ug/L	0
1,3-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
1,4-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
Benzyl alcohol	< 1000 ug/L	1000 ug/L	0
1,2-Dichlorobenzene	< 1000 ug/L	1000 ug/L	0
2-Methylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroisopropyl)ether	< 1000 ug/L	1000 ug/L	0
4-Methylphenol	< 1000 ug/L	1000 ug/L	0
Hexachloroethane	< 1000 ug/L	1000 ug/L	0
n-Nitrosodi-n-propylamine	< 1000 ug/L	1000 ug/L	0
Nitrobenzene	< 1000 ug/L	1000 ug/L	0
Isophorone	< 1000 ug/L	1000 ug/L	0
2-Nitrophenol	< 1000 ug/L	1000 ug/L	0
2,4-Dimethylphenol	< 1000 ug/L	1000 ug/L	0
bis(2-Chloroethoxy)methane	< 1000 ug/L	1000 ug/L	0
2,4-Dichlorophenol	< 1000 ug/L	1000 ug/L	0
Benzoic acid	< 1000 ug/L	1000 ug/L	0
1,2,4-Trichlorobenzene	< 1000 ug/L	1000 ug/L	0
Naphthalene	6400 ug/L	1000 ug/L	0
4-Chloroaniline	< 1000 ug/L	1000 ug/L	0
Hexachlorobutadiene	< 1000 ug/L	1000 ug/L	0
4-Chloro-3-methylphenol	< 1000 ug/L	1000 ug/L	0
2-Methylnaphthalene	1700 ug/L	1000 ug/L	0
Hexachlorocyclopentadiene	< 1000 ug/L	1000 ug/L	0
2,4,6-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2,4,5-Trichlorophenol	< 1000 ug/L	1000 ug/L	0
2-Chloronaphthalene	< 1000 ug/L	1000 ug/L	0
2-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Dimethylphthalate	< 1000 ug/L	1000 ug/L	0
Acenaphthylene	< 1000 ug/L	1000 ug/L	0
2,6-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
3-Nitroaniline	< 1000 ug/L	1000 ug/L	0
Acenaphthene	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrophenol	< 1000 ug/L	1000 ug/L	0
4-Nitrophenol	< 1000 ug/L	1000 ug/L	0
Dibenzofuran	< 1000 ug/L	1000 ug/L	0
2,4-Dinitrotoluene	< 1000 ug/L	1000 ug/L	0
Diethylphthalate	< 1000 ug/L	1000 ug/L	0
Fluorene	< 1000 ug/L	1000 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

A Duke Energy Company

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014057</b>	Job #: <b>99-JUN-0042</b>	Customer ID:
Sample Description: <b>BRAMLETTE ST MW-3D</b>		
Collection Date: <b>6/15/99</b>	Location: <b>MW-3D</b>	Type of Sample: <b>GROUNDWATER</b>

## SVOC IN WATER BY GC/MS - 8270

Test Code: **MS8270\_W** Test Method: **SW-846 8270** Analyst: **RGW7794**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
4-Chlorophenylphenylether	< 1000 ug/L	1000 ug/L	0
4-Nitroaniline	< 1000 ug/L	1000 ug/L	0
2-Methyl-4,6-dinitrophenol	< 1000 ug/L	1000 ug/L	0
n-Nitrosodiphenylamine	< 1000 ug/L	1000 ug/L	0
1,2-Diphenylhydrazine	< 1000 ug/L	1000 ug/L	0
4-Bromophenylphenylether	< 1000 ug/L	1000 ug/L	0
Hexachlorobenzene	< 1000 ug/L	1000 ug/L	0
Pentachlorophenol	< 1000 ug/L	1000 ug/L	0
Phenanthrene	< 1000 ug/L	1000 ug/L	0
Anthracene	< 1000 ug/L	1000 ug/L	0
di-n-Butylphthalate	< 1000 ug/L	1000 ug/L	0
Fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzidine	< 5000 ug/L	5000 ug/L	1
Pyrene	< 1000 ug/L	1000 ug/L	0
Butylbenzylphthalate	< 1000 ug/L	1000 ug/L	0
3,3-Dichlorobenzidine	< 1000 ug/L	1000 ug/L	0
Benzo(a)anthracene	< 1000 ug/L	1000 ug/L	0
Chrysene	< 1000 ug/L	1000 ug/L	0
bis(2-Ethylhexyl)phthalate	< 1000 ug/L	1000 ug/L	0
di-n-Octylphthalate	< 1000 ug/L	1000 ug/L	0
Benzo(b)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(k)fluoranthene	< 1000 ug/L	1000 ug/L	0
Benzo(a)pyrene	< 1000 ug/L	1000 ug/L	0
Indeno(1,2,3-c,d)pyrene	< 1000 ug/L	1000 ug/L	0
Dibenzo(a,h)anthracene	< 1000 ug/L	1000 ug/L	0
Benzo(g,h,i)perylene	< 1000 ug/L	1000 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant 7/16/99*  
Data Verified and Approved By, Date

1LW  
7/19/97

*Tentatively Identified Compounds Report*

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification Basis			Scan Number
					Library Match	Manual Interpretation	RT	
No TIC's Identified								

Internal Standard	(Minutes)	Acid Surrogates	% Recovery	B/N Surrogates	% Recovery
1,4-Dichlorobenzene-D4	12.31	2-Fluorophenol	0.9%	Nitrobenzene-D5	0.7%
Naphthalene-D8	16.33	Phenol	0.0%	2-Fluorobiphenyl	1.1%
Acenaphthene-D10	21.98	2,4,6-Tribromophenol	0.0%	Terphenyl-D14	1.0%
Pentachlorophenol	0.00				
3,3-Dichlorobenzidine	0.00				
Perylene-D12	39.79				

**USEPA--8270 G.C. Conditions**

25m x 0.2mm x 0.33um Ultra Two Crosslinked 5% Methyl Silicon Column

He, 0.5 ml/min, 45°C (hold 4.0 min), 45°C to 300°C (8.0°C/min), hold 300° for 21 min.

July 8, 1999  
01:25 PM



*A Duke Energy Company*

*(This document must accompany release of analytical results)*

8260

# Case Narrative

L.I.M.S.  
Work Order #

**99-JUN-0042**

- > Sample Set 99-JUN-0042 was analyzed by EPA 8260 with 5030 purge method.
- > QC for this set was 99-JUN-0272.
- > The continuing calibration check for 2,2 dichloropropane and carbon tetrachloride had a 27% and 30% drift from the original calibration curve on 6/22/99 on MS5. The method acceptance criteria are a 20 % drift. Results for these compounds should be considered estimates. There is an unknown impact to laboratory data.
- > The results for acetone on MS5 are considered estimates, as this system does not produce reliable results. There is an unknown impact to laboratory data.
- > Some results for reported compounds have been flagged as estimates. This is because the concentration of the analyte was outside the calibration curve.

Analyst:

*Mary Ann Ogle*



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014009</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-1</b>		
Collection Date: <b>6/16/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

**VOC IN WATER BY GC/MS - 8260**

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 300 ug/L	300 ug/L	0
Chloromethane	< 300 ug/L	300 ug/L	0
Vinyl chloride	< 300 ug/L	300 ug/L	0
Bromomethane	< 300 ug/L	300 ug/L	0
Chloroethane	< 300 ug/L	300 ug/L	0
Trichlorofluoromethane	< 300 ug/L	300 ug/L	0
Acrolein	< 300 ug/L	300 ug/L	0
1,1-Dichloroethene	< 300 ug/L	300 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 300 ug/L	300 ug/L	0
Acetone	< 300 ug/L	300 ug/L	1
Methyl iodide	< 300 ug/L	300 ug/L	0
Carbon disulfide	< 300 ug/L	300 ug/L	0
Methylene chloride	< 300 ug/L	300 ug/L	0
Acrylonitrile	< 300 ug/L	300 ug/L	0
MTBE	< 300 ug/L	300 ug/L	0
trans-1,2-Dichloroethene	< 300 ug/L	300 ug/L	0
Isopropyl ether	< 300 ug/L	300 ug/L	0
1,1-Dichloroethane	< 300 ug/L	300 ug/L	0
Vinyl acetate	< 300 ug/L	300 ug/L	0
2,2-Dichloropropane	< 300 ug/L	300 ug/L	0
cis-1,2-Dichloroethene	< 300 ug/L	300 ug/L	0
2-Butanone	< 300 ug/L	300 ug/L	0
Chloroform	< 300 ug/L	300 ug/L	0
1,1-Dichloropropene	< 300 ug/L	300 ug/L	0
1,1,1-Trichloroethane	< 300 ug/L	300 ug/L	0
Carbon tetrachloride	< 300 ug/L	300 ug/L	0
Bromochloromethane	260 ug/L	300 ug/L	2
Benzene	200 ug/L	300 ug/L	2
1,2-Dichloroethane	< 300 ug/L	300 ug/L	0
Trichloroethene	< 300 ug/L	300 ug/L	0
1,2-Dichloropropane	< 300 ug/L	300 ug/L	0
Dibromomethane	< 300 ug/L	300 ug/L	0
Bromodichloromethane	< 300 ug/L	300 ug/L	0
2-Chloroethyl vinyl ether	< 300 ug/L	300 ug/L	0
cis-1,3-Dichloropropene	< 300 ug/L	300 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 300 ug/L	300 ug/L	0
Toluene	290 ug/L	300 ug/L	2
trans-1,3-Dichloropropene	< 300 ug/L	300 ug/L	0
1,1,2-Trichloroethane	< 300 ug/L	300 ug/L	0
1,3-Dichloropropane	< 300 ug/L	300 ug/L	0
Tetrachloroethene	< 300 ug/L	300 ug/L	0
2-Hexanone	< 300 ug/L	300 ug/L	0
Dibromochloromethane	< 300 ug/L	300 ug/L	0
1,2-Dibromoethane (EDB)	< 300 ug/L	300 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014009

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-1

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MA0125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 300 ug/L	300 ug/L	0
Isopropylbenzene	< 300 ug/L	300 ug/L	0
1,1,1,2-tetrachloroethane	< 300 ug/L	300 ug/L	0
Ethylbenzene	< 300 ug/L	300 ug/L	0
m-p-Xylene	< 600 ug/L	600 ug/L	0
o-Xylene	< 300 ug/L	300 ug/L	0
Styrene	< 300 ug/L	300 ug/L	0
Bromoform	< 300 ug/L	300 ug/L	0
1,4-Dichlorobutane	< 300 ug/L	300 ug/L	0
1,1,2,2-Tetrachloroethane	< 300 ug/L	300 ug/L	0
1,2,3-Trichloropropane	< 300 ug/L	300 ug/L	0
n-Propyl benzene	< 300 ug/L	300 ug/L	0
Bromobenzene	< 300 ug/L	300 ug/L	0
1,3,5-trimethylbenzene	< 300 ug/L	300 ug/L	0
2-Chlorotoluene	< 300 ug/L	300 ug/L	0
4-Chlorotoluene	< 300 ug/L	300 ug/L	0
t-Butylbenzene	< 300 ug/L	300 ug/L	0
1,2,4-Trimethylbenzene	< 300 ug/L	300 ug/L	0
sec-Butylbenzene	< 300 ug/L	300 ug/L	0
p-Isopropyltoluene	< 300 ug/L	300 ug/L	0
1,3-Dichlorobenzene	< 300 ug/L	300 ug/L	0
1,4-Dichlorobenzene	< 300 ug/L	300 ug/L	0
n-Butylbenzene	< 300 ug/L	300 ug/L	0
1,2-Dichlorobenzene	< 300 ug/L	300 ug/L	0
1,2-Dibromo-3-chloropropane	< 300 ug/L	300 ug/L	0
1,2,4-Trichlorobenzene	< 300 ug/L	300 ug/L	0
Hexachlorobutadiene	< 300 ug/L	300 ug/L	0
Naphthalene	5700 ug/L	300 ug/L	0
1,2,3-Trichlorobenzene	< 300 ug/L	300 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date



# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
Indene		840	97	22.95	x			
methyl naphthalene		740	87	29.23	x			

Internal Standard	
	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

Surrogates	
	% Recovery
Dibromofluoromethane	92%
Toluene D-8	102%
1,4-Bromofluorobenze	93%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014010

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-2

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	1
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	89 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: **99014010**

Job #: **99-JUN-0042**

Customer ID: G. FRANKLIN

Sample Description: **MW-2**

Collection Date: **6/16/99**

Site: **BRAMLETT ST**

Type of Sample: **GROUNDWATER**

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W**

Test Method: **SW-846 8260**

Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	15 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	6.8 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	3.2 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	150 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

## Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
Indane		90	87	22.48	x			
methyl Indan		7.5	87	25.51	x			
benzothiophene		14	91	27.1	x			
methyl naphthalene		73	93	29.53	x			
dimethyl naphthalene		7.8	95	31.01	x			
dimethyl naphthalene		12	95	31.28	x			

Internal Standard	
	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

Surrogates	
	% Recovery
Dibromofluoromethane	95%
Toluene D-8	99%
1,4-Bromofluorobenze	84%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014011

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-3

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 6.0 ug/L	6.0 ug/L	0
Chloromethane	< 6.0 ug/L	6.0 ug/L	0
Vinyl chloride	< 6.0 ug/L	6.0 ug/L	0
Bromomethane	< 6.0 ug/L	6.0 ug/L	0
Chloroethane	< 6.0 ug/L	6.0 ug/L	0
Trichlorofluoromethane	< 6.0 ug/L	6.0 ug/L	0
Acrolein	< 6.0 ug/L	6.0 ug/L	0
1,1-Dichloroethene	< 6.0 ug/L	6.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 6.0 ug/L	6.0 ug/L	0
Acetone	< 6.0 ug/L	6.0 ug/L	1
Methyl iodide	< 6.0 ug/L	6.0 ug/L	0
Carbon disulfide	< 6.0 ug/L	6.0 ug/L	0
Methylene chloride	< 6.0 ug/L	6.0 ug/L	0
Acrylonitrile	< 6.0 ug/L	6.0 ug/L	0
MTBE	< 6.0 ug/L	6.0 ug/L	0
trans-1,2-Dichloroethene	< 6.0 ug/L	6.0 ug/L	0
Isopropyl ether	< 6.0 ug/L	6.0 ug/L	0
1,1-Dichloroethane	< 6.0 ug/L	6.0 ug/L	0
Vinyl acetate	< 6.0 ug/L	6.0 ug/L	0
2,2-Dichloropropane	< 6.0 ug/L	6.0 ug/L	0
cis-1,2-Dichloroethene	< 6.0 ug/L	6.0 ug/L	0
2-Butanone	< 6.0 ug/L	6.0 ug/L	0
Chloroform	< 6.0 ug/L	6.0 ug/L	0
1,1-Dichloropropene	< 6.0 ug/L	6.0 ug/L	0
1,1,1-Trichloroethane	< 6.0 ug/L	6.0 ug/L	0
Carbon tetrachloride	< 6.0 ug/L	6.0 ug/L	0
Bromochloromethane	< 6.0 ug/L	6.0 ug/L	0
Benzene	49 ug/L	6.0 ug/L	0
1,2-Dichloroethane	< 6.0 ug/L	6.0 ug/L	0
Trichloroethene	< 6.0 ug/L	6.0 ug/L	0
1,2-Dichloropropane	< 6.0 ug/L	6.0 ug/L	0
Dibromomethane	< 6.0 ug/L	6.0 ug/L	0
Bromodichloromethane	< 6.0 ug/L	6.0 ug/L	0
2-Chloroethyl vinyl ether	< 6.0 ug/L	6.0 ug/L	0
cis-1,3-Dichloropropene	< 6.0 ug/L	6.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 6.0 ug/L	6.0 ug/L	0
Toluene	11 ug/L	6.0 ug/L	0
trans-1,3-Dichloropropene	< 6.0 ug/L	6.0 ug/L	0
1,1,2-Trichloroethane	< 6.0 ug/L	6.0 ug/L	0
1,3-Dichloropropane	< 6.0 ug/L	6.0 ug/L	0
Tetrachloroethene	< 6.0 ug/L	6.0 ug/L	0
2-Hexanone	< 6.0 ug/L	6.0 ug/L	0
Dibromochloromethane	< 6.0 ug/L	6.0 ug/L	0
1,2-Dibromoethane (EDB)	< 6.0 ug/L	6.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014011

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-3

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 6.0 ug/L	6.0 ug/L	0
Isopropylbenzene	< 6.0 ug/L	6.0 ug/L	0
1,1,1,2-tetrachloroethane	< 6.0 ug/L	6.0 ug/L	0
Ethylbenzene	28 ug/L	6.0 ug/L	0
m-p-Xylene	9.4 ug/L	12 ug/L	0
o-Xylene	8.6 ug/L	6.0 ug/L	0
Styrene	< 6.0 ug/L	6.0 ug/L	0
Bromoform	< 6.0 ug/L	6.0 ug/L	0
1,4-Dichlorobutane	< 6.0 ug/L	6.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 6.0 ug/L	6.0 ug/L	0
1,2,3-Trichloropropane	< 6.0 ug/L	6.0 ug/L	0
n-Propyl benzene	< 6.0 ug/L	6.0 ug/L	0
Bromobenzene	< 6.0 ug/L	6.0 ug/L	0
1,3,5-trimethylbenzene	< 6.0 ug/L	6.0 ug/L	0
2-Chlorotoluene	< 6.0 ug/L	6.0 ug/L	0
4-Chlorotoluene	< 6.0 ug/L	6.0 ug/L	0
t-Butylbenzene	< 6.0 ug/L	6.0 ug/L	0
1,2,4-Trimethylbenzene	8.8 ug/L	6.0 ug/L	0
sec-Butylbenzene	< 6.0 ug/L	6.0 ug/L	0
p-Isopropyltoluene	< 6.0 ug/L	6.0 ug/L	0
1,3-Dichlorobenzene	< 6.0 ug/L	6.0 ug/L	0
1,4-Dichlorobenzene	< 6.0 ug/L	6.0 ug/L	0
n-Butylbenzene	< 6.0 ug/L	6.0 ug/L	0
1,2-Dichlorobenzene	< 6.0 ug/L	6.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 6.0 ug/L	6.0 ug/L	0
1,2,4-Trichlorobenzene	< 6.0 ug/L	6.0 ug/L	0
Hexachlorobutadiene	< 6.0 ug/L	6.0 ug/L	0
Naphthalene	690 ug/L	300 ug/L	0
1,2,3-Trichlorobenzene	< 6.0 ug/L	6.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
Indene		18	94	22.95	x			

	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

	% Recovery
Dibromofluoromethane	93%
Toluene D-8	103%
1,4-Bromofluorobenze	91%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @ 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014012</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-4</b>		
Collection Date: <b>6/17/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014012

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-4

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Doug Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	111%
Toluene D-8	100%
1,4-Bromofluorobenze	92%

**USEPA - 8260 G.C. Conditions**

105 m x 0.53 mm x 1.0 um / Restek 502.2

He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @ 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID # : <b>99014013</b>	Job # : <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-5</b>		
Collection Date: <b>6/14/99</b>	Site : <b>BRAMLETT ST</b>	Type of Sample : <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014013</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-5</b>		
Collection Date: <b>6/14/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	110%
Toluene D-8	99%
1,4-Bromofluorobenze	93%

**USEPA - 8260 G.C. Conditions**  
 105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014015

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-6

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 15 ug/L	15 ug/L	0
Chloromethane	< 15 ug/L	15 ug/L	0
Vinyl chloride	< 15 ug/L	15 ug/L	0
Bromomethane	< 15 ug/L	15 ug/L	0
Chloroethane	< 15 ug/L	15 ug/L	0
Trichlorofluoromethane	< 15 ug/L	15 ug/L	0
Acrolein	< 15 ug/L	15 ug/L	0
1,1-Dichloroethene	< 15 ug/L	15 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 15 ug/L	15 ug/L	0
Acetone	< 15 ug/L	15 ug/L	1
Methyl iodide	< 15 ug/L	15 ug/L	0
Carbon disulfide	< 15 ug/L	15 ug/L	0
Methylene chloride	< 15 ug/L	15 ug/L	0
Acrylonitrile	< 15 ug/L	15 ug/L	0
MTBE	< 15 ug/L	15 ug/L	0
trans-1,2-Dichloroethene	< 15 ug/L	15 ug/L	0
Isopropyl ether	< 15 ug/L	15 ug/L	0
1,1-Dichloroethane	< 15 ug/L	15 ug/L	0
Vinyl acetate	< 15 ug/L	15 ug/L	0
2,2-Dichloropropane	< 15 ug/L	15 ug/L	1
cis-1,2-Dichloroethene	< 15 ug/L	15 ug/L	0
2-Butanone	< 15 ug/L	15 ug/L	0
Chloroform	< 15 ug/L	15 ug/L	0
1,1-Dichloropropene	< 15 ug/L	15 ug/L	0
1,1,1-Trichloroethane	< 15 ug/L	15 ug/L	0
Carbon tetrachloride	< 15 ug/L	15 ug/L	1
Bromochloromethane	< 15 ug/L	15 ug/L	0
Benzene	21 ug/L	15 ug/L	0
1,2-Dichloroethane	< 15 ug/L	15 ug/L	0
Trichloroethene	< 15 ug/L	15 ug/L	0
1,2-Dichloropropane	< 15 ug/L	15 ug/L	0
Dibromomethane	< 15 ug/L	15 ug/L	0
Bromodichloromethane	< 15 ug/L	15 ug/L	0
2-Chloroethyl vinyl ether	< 15 ug/L	15 ug/L	0
cis-1,3-Dichloropropene	< 15 ug/L	15 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 15 ug/L	15 ug/L	0
Toluene	35 ug/L	15 ug/L	0
trans-1,3-Dichloropropene	< 15 ug/L	15 ug/L	0
1,1,2-Trichloroethane	< 15 ug/L	15 ug/L	0
1,3-Dichloropropane	< 15 ug/L	15 ug/L	0
Tetrachloroethene	< 15 ug/L	15 ug/L	0
2-Hexanone	< 15 ug/L	15 ug/L	0
Dibromochloromethane	< 15 ug/L	15 ug/L	0
1,2-Dibromoethane (EDB)	< 15 ug/L	15 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014015

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-6

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 15 ug/L	15 ug/L	0
Isopropylbenzene	< 15 ug/L	15 ug/L	0
1,1,1,2-tetrachloroethane	< 15 ug/L	15 ug/L	0
Ethylbenzene	15 ug/L	15 ug/L	0
m-p-Xylene	19 ug/L	30 ug/L	2
o-Xylene	11 ug/L	15 ug/L	2
Styrene	< 15 ug/L	15 ug/L	0
Bromoform	< 15 ug/L	15 ug/L	0
1,4-Dichlorobutane	< 15 ug/L	15 ug/L	0
1,1,2,2-Tetrachloroethane	< 15 ug/L	15 ug/L	0
1,2,3-Trichloropropane	< 15 ug/L	15 ug/L	0
n-Propyl benzene	< 15 ug/L	15 ug/L	0
Bromobenzene	< 15 ug/L	15 ug/L	0
1,3,5-trimethylbenzene	< 15 ug/L	15 ug/L	0
2-Chlorotoluene	< 15 ug/L	15 ug/L	0
4-Chlorotoluene	< 15 ug/L	15 ug/L	0
t-Butylbenzene	< 15 ug/L	15 ug/L	0
1,2,4-Trimethylbenzene	< 15 ug/L	15 ug/L	0
sec-Butylbenzene	< 15 ug/L	15 ug/L	0
p-Isopropyltoluene	< 15 ug/L	15 ug/L	0
1,3-Dichlorobenzene	< 15 ug/L	15 ug/L	0
1,4-Dichlorobenzene	< 15 ug/L	15 ug/L	0
n-Butylbenzene	< 15 ug/L	15 ug/L	0
1,2-Dichlorobenzene	< 15 ug/L	15 ug/L	0
1,2-Dibromo-3-chloropropane	< 15 ug/L	15 ug/L	0
1,2,4-Trichlorobenzene	< 15 ug/L	15 ug/L	0
Hexachlorobutadiene	< 15 ug/L	15 ug/L	0
Naphthalene	450 ug/L	15 ug/L	0
1,2,3-Trichlorobenzene	< 15 ug/L	15 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Doug Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

Surrogates	
	% Recovery
Dibromofluoromethane	90%
Toluene D-8	100%
1,4-Bromofluorobenze	84%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014014

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-7

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 30 ug/L	30 ug/L	0
Chloromethane	< 30 ug/L	30 ug/L	0
Vinyl chloride	< 30 ug/L	30 ug/L	0
Bromomethane	< 30 ug/L	30 ug/L	0
Chloroethane	< 30 ug/L	30 ug/L	0
Trichlorofluoromethane	< 30 ug/L	30 ug/L	0
Acrolein	< 30 ug/L	30 ug/L	0
1,1-Dichloroethene	< 30 ug/L	30 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 30 ug/L	30 ug/L	0
Acetone	< 30 ug/L	30 ug/L	1
Methyl iodide	< 30 ug/L	30 ug/L	0
Carbon disulfide	< 30 ug/L	30 ug/L	0
Methylene chloride	< 30 ug/L	30 ug/L	0
Acrylonitrile	< 30 ug/L	30 ug/L	0
MTBE	< 30 ug/L	30 ug/L	0
trans-1,2-Dichloroethene	< 30 ug/L	30 ug/L	0
Isopropyl ether	< 30 ug/L	30 ug/L	0
1,1-Dichloroethane	< 30 ug/L	30 ug/L	0
Vinyl acetate	< 30 ug/L	30 ug/L	0
2,2-Dichloropropane	< 30 ug/L	30 ug/L	1
cis-1,2-Dichloroethene	< 30 ug/L	30 ug/L	0
2-Butanone	< 30 ug/L	30 ug/L	0
Chloroform	< 30 ug/L	30 ug/L	0
1,1-Dichloropropene	< 30 ug/L	30 ug/L	0
1,1,1-Trichloroethane	< 30 ug/L	30 ug/L	0
Carbon tetrachloride	< 30 ug/L	30 ug/L	1
Bromochloromethane	< 30 ug/L	30 ug/L	0
Benzene	570 ug/L	30 ug/L	0
1,2-Dichloroethane	< 30 ug/L	30 ug/L	0
Trichloroethene	< 30 ug/L	30 ug/L	0
1,2-Dichloropropane	< 30 ug/L	30 ug/L	0
Dibromomethane	< 30 ug/L	30 ug/L	0
Bromodichloromethane	< 30 ug/L	30 ug/L	0
2-Chloroethyl vinyl ether	< 30 ug/L	30 ug/L	0
cis-1,3-Dichloropropene	< 30 ug/L	30 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 30 ug/L	30 ug/L	0
Toluene	< 30 ug/L	30 ug/L	0
trans-1,3-Dichloropropene	< 30 ug/L	30 ug/L	0
1,1,2-Trichloroethane	< 30 ug/L	30 ug/L	0
1,3-Dichloropropane	< 30 ug/L	30 ug/L	0
Tetrachloroethene	< 30 ug/L	30 ug/L	0
2-Hexanone	< 30 ug/L	30 ug/L	0
Dibromochloromethane	< 30 ug/L	30 ug/L	0
1,2-Dibromoethane (EDB)	< 30 ug/L	30 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014014

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-7

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 30 ug/L	30 ug/L	0
Isopropylbenzene	< 30 ug/L	30 ug/L	0
1,1,1,2-tetrachloroethane	< 30 ug/L	30 ug/L	0
Ethylbenzene	350 ug/L	30 ug/L	0
m-p-Xylene	170 ug/L	60 ug/L	0
o-Xylene	140 ug/L	30 ug/L	0
Styrene	< 30 ug/L	30 ug/L	0
Bromofom	< 30 ug/L	30 ug/L	0
1,4-Dichlorobutane	< 30 ug/L	30 ug/L	0
1,1,2,2-Tetrachloroethane	< 30 ug/L	30 ug/L	0
1,2,3-Trichloropropane	< 30 ug/L	30 ug/L	0
n-Propyl benzene	< 30 ug/L	30 ug/L	0
Bromobenzene	< 30 ug/L	30 ug/L	0
1,3,5-trimethylbenzene	< 30 ug/L	30 ug/L	0
2-Chlorotoluene	< 30 ug/L	30 ug/L	0
4-Chlorotoluene	< 30 ug/L	30 ug/L	0
t-Butylbenzene	< 30 ug/L	30 ug/L	0
1,2,4-Trimethylbenzene	57 ug/L	30 ug/L	0
sec-Butylbenzene	< 30 ug/L	30 ug/L	0
p-Isopropyltoluene	< 30 ug/L	30 ug/L	0
1,3-Dichlorobenzene	< 30 ug/L	30 ug/L	0
1,4-Dichlorobenzene	< 30 ug/L	30 ug/L	0
n-Butylbenzene	< 30 ug/L	30 ug/L	0
1,2-Dichlorobenzene	< 30 ug/L	30 ug/L	0
1,2-Dibromo-3-chloropropane	< 30 ug/L	30 ug/L	0
1,2,4-Trichlorobenzene	< 30 ug/L	30 ug/L	0
Hexachlorobutadiene	< 30 ug/L	30 ug/L	0
Naphthalene	1400 ug/L	30 ug/L	0
1,2,3-Trichlorobenzene	< 30 ug/L	30 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisnant* 7/16/99  
Date Verified and Approved By, Date

## Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
Indane		860	87	22.49	x			
Indene		53	90	22.94	x			
methyl naphthalene		51	93	29.53	x			

**Internal Standard**

	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

**Surrogates**

	% Recovery
Dibromofluoromethane	92%
Toluene D-8	106%
1,4-Bromofluorobenze	87%

**USEPA - 8260 G.C. Conditions**

25 m x 0.2 mm x 1.12um / HP-624  
He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014016

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-8

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 30 ug/L	30 ug/L	0
Chloromethane	< 30 ug/L	30 ug/L	0
Vinyl chloride	< 30 ug/L	30 ug/L	0
Bromomethane	< 30 ug/L	30 ug/L	0
Chloroethane	< 30 ug/L	30 ug/L	0
Trichlorofluoromethane	< 30 ug/L	30 ug/L	0
Acrolein	< 30 ug/L	30 ug/L	0
1,1-Dichloroethene	< 30 ug/L	30 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 30 ug/L	30 ug/L	0
Acetone	< 30 ug/L	30 ug/L	1
Methyl iodide	< 30 ug/L	30 ug/L	0
Carbon disulfide	< 30 ug/L	30 ug/L	0
Methylene chloride	< 30 ug/L	30 ug/L	0
Acrylonitrile	< 30 ug/L	30 ug/L	0
MTBE	< 30 ug/L	30 ug/L	0
trans-1,2-Dichloroethene	< 30 ug/L	30 ug/L	0
Isopropyl ether	< 30 ug/L	30 ug/L	0
1,1-Dichloroethane	< 30 ug/L	30 ug/L	0
Vinyl acetate	< 30 ug/L	30 ug/L	0
2,2-Dichloropropane	< 30 ug/L	30 ug/L	1
cis-1,2-Dichloroethene	< 30 ug/L	30 ug/L	0
2-Butanone	< 30 ug/L	30 ug/L	0
Chloroform	< 30 ug/L	30 ug/L	0
1,1-Dichloropropene	< 30 ug/L	30 ug/L	0
1,1,1-Trichloroethane	< 30 ug/L	30 ug/L	0
Carbon tetrachloride	< 30 ug/L	30 ug/L	1
Bromochloromethane	< 30 ug/L	30 ug/L	0
Benzene	340 ug/L	30 ug/L	0
1,2-Dichloroethane	< 30 ug/L	30 ug/L	0
Trichloroethene	< 30 ug/L	30 ug/L	0
1,2-Dichloropropane	< 30 ug/L	30 ug/L	0
Dibromomethane	< 30 ug/L	30 ug/L	0
Bromodichloromethane	< 30 ug/L	30 ug/L	0
2-Chloroethyl vinyl ether	< 30 ug/L	30 ug/L	0
cis-1,3-Dichloropropene	< 30 ug/L	30 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 30 ug/L	30 ug/L	0
Toluene	< 30 ug/L	30 ug/L	0
trans-1,3-Dichloropropene	< 30 ug/L	30 ug/L	0
1,1,2-Trichloroethane	< 30 ug/L	30 ug/L	0
1,3-Dichloropropane	< 30 ug/L	30 ug/L	0
Tetrachloroethene	< 30 ug/L	30 ug/L	0
2-Hexanone	< 30 ug/L	30 ug/L	0
Dibromochloromethane	< 30 ug/L	30 ug/L	0
1,2-Dibromoethane (EDB)	< 30 ug/L	30 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014016

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-8

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 30 ug/L	30 ug/L	0
Isopropylbenzene	< 30 ug/L	30 ug/L	0
1,1,1,2-tetrachloroethane	< 30 ug/L	30 ug/L	0
Ethylbenzene	140 ug/L	30 ug/L	0
m-p-Xylene	75 ug/L	60 ug/L	0
o-Xylene	40 ug/L	30 ug/L	0
Styrene	< 30 ug/L	30 ug/L	0
Bromoform	< 30 ug/L	30 ug/L	0
1,4-Dichlorobutane	< 30 ug/L	30 ug/L	0
1,1,2,2-Tetrachloroethane	< 30 ug/L	30 ug/L	0
1,2,3-Trichloropropane	< 30 ug/L	30 ug/L	0
n-Propyl benzene	< 30 ug/L	30 ug/L	0
Bromobenzene	< 30 ug/L	30 ug/L	0
1,3,5-trimethylbenzene	< 30 ug/L	30 ug/L	0
2-Chlorotoluene	< 30 ug/L	30 ug/L	0
4-Chlorotoluene	< 30 ug/L	30 ug/L	0
t-Butylbenzene	< 30 ug/L	30 ug/L	0
1,2,4-Trimethylbenzene	24 ug/L	30 ug/L	2
sec-Butylbenzene	< 30 ug/L	30 ug/L	0
p-Isopropyltoluene	< 30 ug/L	30 ug/L	0
1,3-Dichlorobenzene	< 30 ug/L	30 ug/L	0
1,4-Dichlorobenzene	< 30 ug/L	30 ug/L	0
n-Butylbenzene	< 30 ug/L	30 ug/L	0
1,2-Dichlorobenzene	< 30 ug/L	30 ug/L	0
1,2-Dibromo-3-chloropropane	< 30 ug/L	30 ug/L	0
1,2,4-Trichlorobenzene	< 30 ug/L	30 ug/L	0
Hexachlorobutadiene	< 30 ug/L	30 ug/L	0
Naphthalene	1400 ug/L	30 ug/L	0
1,2,3-Trichlorobenzene	< 30 ug/L	30 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Iroy Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
Indane		410	76	22.49	x			

	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

	% Recovery
Dibromofluoromethane	92%
Toluene D-8	102%
1,4-Bromofluorobenze	84%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014017

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-9

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 15 ug/L	15 ug/L	0
Chloromethane	< 15 ug/L	15 ug/L	0
Vinyl chloride	< 15 ug/L	15 ug/L	0
Bromomethane	< 15 ug/L	15 ug/L	0
Chloroethane	< 15 ug/L	15 ug/L	0
Trichlorofluoromethane	< 15 ug/L	15 ug/L	0
Acrofein	< 15 ug/L	15 ug/L	0
1,1-Dichloroethene	< 15 ug/L	15 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 15 ug/L	15 ug/L	0
Acetone	< 15 ug/L	15 ug/L	1
Methyl iodide	< 15 ug/L	15 ug/L	0
Carbon disulfide	< 15 ug/L	15 ug/L	0
Methylene chloride	< 15 ug/L	15 ug/L	0
Acrylonitrile	< 15 ug/L	15 ug/L	0
MTBE	< 15 ug/L	15 ug/L	0
trans-1,2-Dichloroethene	< 15 ug/L	15 ug/L	0
Isopropyl ether	< 15 ug/L	15 ug/L	0
1,1-Dichloroethane	< 15 ug/L	15 ug/L	0
Vinyl acetate	< 15 ug/L	15 ug/L	0
2,2-Dichloropropane	< 15 ug/L	15 ug/L	1
cis-1,2-Dichloroethene	< 15 ug/L	15 ug/L	0
2-Butanone	< 15 ug/L	15 ug/L	0
Chloroform	< 15 ug/L	15 ug/L	0
1,1-Dichloropropene	< 15 ug/L	15 ug/L	0
1,1,1-Trichloroethane	< 15 ug/L	15 ug/L	0
Carbon tetrachloride	< 15 ug/L	15 ug/L	1
Bromochloromethane	< 15 ug/L	15 ug/L	0
Benzene	< 15 ug/L	15 ug/L	0
1,2-Dichloroethane	< 15 ug/L	15 ug/L	0
Trichloroethene	< 15 ug/L	15 ug/L	0
1,2-Dichloropropane	< 15 ug/L	15 ug/L	0
Dibromomethane	< 15 ug/L	15 ug/L	0
Bromodichloromethane	< 15 ug/L	15 ug/L	0
2-Chloroethyl vinyl ether	< 15 ug/L	15 ug/L	0
cis-1,3-Dichloropropene	< 15 ug/L	15 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 15 ug/L	15 ug/L	0
Toluene	< 15 ug/L	15 ug/L	0
trans-1,3-Dichloropropene	< 15 ug/L	15 ug/L	0
1,1,2-Trichloroethane	< 15 ug/L	15 ug/L	0
1,3-Dichloropropane	< 15 ug/L	15 ug/L	0
Tetrachloroethene	< 15 ug/L	15 ug/L	0
2-Hexanone	< 15 ug/L	15 ug/L	0
Dibromochloromethane	< 15 ug/L	15 ug/L	0
1,2-Dibromoethane (EDB)	< 15 ug/L	15 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014017

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-9

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 15 ug/L	15 ug/L	0
Isopropylbenzene	< 15 ug/L	15 ug/L	0
1,1,1,2-tetrachloroethane	< 15 ug/L	15 ug/L	0
Ethylbenzene	< 15 ug/L	15 ug/L	0
m-p-Xylene	< 30 ug/L	30 ug/L	0
o-Xylene	< 15 ug/L	15 ug/L	0
Styrene	< 15 ug/L	15 ug/L	0
Bromoform	< 15 ug/L	15 ug/L	0
1,4-Dichlorobutane	< 15 ug/L	15 ug/L	0
1,1,2,2-Tetrachloroethane	< 15 ug/L	15 ug/L	0
1,2,3-Trichloropropane	< 15 ug/L	15 ug/L	0
n-Propyl benzene	< 15 ug/L	15 ug/L	0
Bromobenzene	< 15 ug/L	15 ug/L	0
1,3,5-trimethylbenzene	< 15 ug/L	15 ug/L	0
2-Chlorotoluene	< 15 ug/L	15 ug/L	0
4-Chlorotoluene	< 15 ug/L	15 ug/L	0
t-Butylbenzene	< 15 ug/L	15 ug/L	0
1,2,4-Trimethylbenzene	< 15 ug/L	15 ug/L	0
sec-Butylbenzene	< 15 ug/L	15 ug/L	0
p-Isopropyltoluene	< 15 ug/L	15 ug/L	0
1,3-Dichlorobenzene	< 15 ug/L	15 ug/L	0
1,4-Dichlorobenzene	< 15 ug/L	15 ug/L	0
n-Butylbenzene	< 15 ug/L	15 ug/L	0
1,2-Dichlorobenzene	< 15 ug/L	15 ug/L	0
1,2-Dibromo-3-chloropropane	< 15 ug/L	15 ug/L	0
1,2,4-Trichlorobenzene	< 15 ug/L	15 ug/L	0
Hexachlorobutadiene	< 15 ug/L	15 ug/L	0
Naphthalene	120 ug/L	15 ug/L	0
1,2,3-Trichlorobenzene	< 15 ug/L	15 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date



# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

Surrogates	
	% Recovery
Dibromofluoromethane	94%
Toluene D-8	103%
1,4-Bromofluorobenze	84%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @ 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014018</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-10</b>		
Collection Date: <b>6/15/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014018

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-10

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |   |
|-----------------------------|---|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                                 |
| 1 - See Case Narrative      | 4 - Estimated Concentration<br>also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                              |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

**Internal Standard**

	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

**Surrogates**

	% Recovery
Dibromofluoromethane	107%
Toluene D-8	98%
1,4-Bromofluorobenze	92%

**USEPA - 8260 G.C. Conditions**

105 m x 0.53 mm x 1.0 um / Restek 502.2  
He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014019

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-11

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



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Sample ID #: 99014019

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-11

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenand* 7/16/99  
Data Verified and Approved By, Date

## Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

**Internal Standard**

	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

**Surrogates**

	% Recovery
Dibromofluoromethane	111%
Toluene D-8	99%
1,4-Bromofluorobenze	91%

**USEPA - 8260 G.C. Conditions**

105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014020

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-12

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	1
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0





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Sample ID #: 99014020

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-12

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

Surrogates	
	% Recovery
Dibromofluoromethane	98%
Toluene D-8	98%
1,4-Bromofluorobenze	84%

**USEPA - 8260 G.C. Conditions**  
25 m x 0.2 mm x 1.12um / HP-624  
He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



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 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014021</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-13</b>		
Collection Date: <b>6/15/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

**VOC IN WATER BY GC/MS - 8260**

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	29 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	1
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	6.2 ug/L	3.0 ug/L	0
1,2-Dichloroethane	3.7 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



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Sample ID #: 99014021

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-13

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromofom	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date





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Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014022</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-14</b>		
Collection Date: <b>6/15/99</b>	Site : <b>BRAMLETT ST</b>	Type of Sample : <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
cis-1,2-Dichloroethene	15 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	1
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	100 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	2.3 ug/L	3.0 ug/L	2
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014022

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-14

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromofom	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisman* 7/16/99  
Date Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

### Internal Standard

	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

### Surrogates

	% Recovery
Dibromofluoromethane	90%
Toluene D-8	99%
1,4-Bromofluorobenze	85%

### USEPA - 8260 G.C. Conditions

25 m x 0.2 mm x 1.12µm / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014023</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-15</b>		
Collection Date: 6/16/99	Site : BRAMLETT ST	Type of Sample : GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W Test Method: SW-846 8260 Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	1
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014023

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-15

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	5.9 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014024</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-16</b>		
Collection Date: <b>6/16/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W**

Test Method: **SW-846 8260**

Analyst: **MAO125C**

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	1
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014024</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-16</b>		
Collection Date: <b>6/16/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

**VOC IN WATER BY GC/MS - 8260**

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MA0125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

**Description of Flags:**

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant 7/16/99*  
 Data Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014025</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-17</b>		
Collection Date: <b>6/15/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 150 ug/L	150 ug/L	0
Chloromethane	< 150 ug/L	150 ug/L	0
Vinyl chloride	< 150 ug/L	150 ug/L	0
Bromomethane	< 150 ug/L	150 ug/L	0
Chloroethane	< 150 ug/L	150 ug/L	0
Trichlorofluoromethane	< 150 ug/L	150 ug/L	0
Acrolein	< 150 ug/L	150 ug/L	0
1,1-Dichloroethene	< 150 ug/L	150 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 150 ug/L	150 ug/L	0
Acetone	< 150 ug/L	150 ug/L	1
Methyl iodide	< 150 ug/L	150 ug/L	0
Carbon disulfide	< 150 ug/L	150 ug/L	0
Methylene chloride	< 150 ug/L	150 ug/L	0
Acrylonitrile	< 150 ug/L	150 ug/L	0
MTBE	< 150 ug/L	150 ug/L	0
trans-1,2-Dichloroethene	< 150 ug/L	150 ug/L	0
Isopropyl ether	< 150 ug/L	150 ug/L	0
1,1-Dichloroethane	< 150 ug/L	150 ug/L	0
Vinyl acetate	< 150 ug/L	150 ug/L	0
2,2-Dichloropropane	< 150 ug/L	150 ug/L	0
cis-1,2-Dichloroethene	< 150 ug/L	150 ug/L	0
2-Butanone	< 150 ug/L	150 ug/L	0
Chloroform	< 150 ug/L	150 ug/L	0
1,1-Dichloropropene	< 150 ug/L	150 ug/L	0
1,1,1-Trichloroethane	< 150 ug/L	150 ug/L	0
Carbon tetrachloride	< 150 ug/L	150 ug/L	0
Bromochloromethane	< 150 ug/L	150 ug/L	0
Benzene	120 ug/L	150 ug/L	2
1,2-Dichloroethane	< 150 ug/L	150 ug/L	0
Trichloroethene	< 150 ug/L	150 ug/L	0
1,2-Dichloropropane	< 150 ug/L	150 ug/L	0
Dibromomethane	< 150 ug/L	150 ug/L	0
Bromodichloromethane	< 150 ug/L	150 ug/L	0
2-Chloroethyl vinyl ether	< 150 ug/L	150 ug/L	0
cis-1,3-Dichloropropene	< 150 ug/L	150 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 150 ug/L	150 ug/L	0
Toluene	360 ug/L	150 ug/L	0
trans-1,3-Dichloropropene	< 150 ug/L	150 ug/L	0
1,1,2-Trichloroethane	< 150 ug/L	150 ug/L	0
1,3-Dichloropropane	< 150 ug/L	150 ug/L	0
Tetrachloroethene	< 150 ug/L	150 ug/L	0
2-Hexanone	< 150 ug/L	150 ug/L	0
Dibromochloromethane	< 150 ug/L	150 ug/L	0
1,2-Dibromoethane (EDB)	< 150 ug/L	150 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014025

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-17

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 150 ug/L	150 ug/L	0
Isopropylbenzene	< 150 ug/L	150 ug/L	0
1,1,1,2-tetrachloroethane	< 150 ug/L	150 ug/L	0
Ethylbenzene	150 ug/L	150 ug/L	0
m-p-Xylene	400 ug/L	300 ug/L	0
o-Xylene	180 ug/L	150 ug/L	0
Styrene	< 150 ug/L	150 ug/L	0
Bromoform	< 150 ug/L	150 ug/L	0
1,4-Dichlorobutane	< 150 ug/L	150 ug/L	0
1,1,2,2-Tetrachloroethane	< 150 ug/L	150 ug/L	0
1,2,3-Trichloropropane	< 150 ug/L	150 ug/L	0
n-Propyl benzene	< 150 ug/L	150 ug/L	0
Bromobenzene	< 150 ug/L	150 ug/L	0
1,3,5-trimethylbenzene	< 150 ug/L	150 ug/L	0
2-Chlorotoluene	< 150 ug/L	150 ug/L	0
4-Chlorotoluene	< 150 ug/L	150 ug/L	0
t-Butylbenzene	< 150 ug/L	150 ug/L	0
1,2,4-Trimethylbenzene	< 150 ug/L	150 ug/L	0
sec-Butylbenzene	< 150 ug/L	150 ug/L	0
p-Isopropyltoluene	< 150 ug/L	150 ug/L	0
1,3-Dichlorobenzene	< 150 ug/L	150 ug/L	0
1,4-Dichlorobenzene	< 150 ug/L	150 ug/L	0
n-Butylbenzene	< 150 ug/L	150 ug/L	0
1,2-Dichlorobenzene	< 150 ug/L	150 ug/L	0
1,2-Dibromo-3-chloropropane	< 150 ug/L	150 ug/L	0
1,2,4-Trichlorobenzene	< 150 ug/L	150 ug/L	0
Hexachlorobutadiene	< 150 ug/L	150 ug/L	0
Naphthalene	6400 ug/L	150 ug/L	0
1,2,3-Trichlorobenzene	< 150 ug/L	150 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014027

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-19

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 150 ug/L	150 ug/L	0
Chloromethane	< 150 ug/L	150 ug/L	0
Vinyl chloride	< 150 ug/L	150 ug/L	0
Bromomethane	< 150 ug/L	150 ug/L	0
Chloroethane	< 150 ug/L	150 ug/L	0
Trichlorofluoromethane	< 150 ug/L	150 ug/L	0
Acrolein	< 150 ug/L	150 ug/L	0
1,1-Dichloroethene	< 150 ug/L	150 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 150 ug/L	150 ug/L	0
Acetone	< 150 ug/L	150 ug/L	1
Methyl iodide	< 150 ug/L	150 ug/L	0
Carbon disulfide	< 150 ug/L	150 ug/L	0
Methylene chloride	< 150 ug/L	150 ug/L	0
Acrylonitrile	< 150 ug/L	150 ug/L	0
MTBE	< 150 ug/L	150 ug/L	0
trans-1,2-Dichloroethene	< 150 ug/L	150 ug/L	0
Isopropyl ether	< 150 ug/L	150 ug/L	0
1,1-Dichloroethane	< 150 ug/L	150 ug/L	0
Vinyl acetate	< 150 ug/L	150 ug/L	0
2,2-Dichloropropane	< 150 ug/L	150 ug/L	0
cis-1,2-Dichloroethene	< 150 ug/L	150 ug/L	0
2-Butanone	< 150 ug/L	150 ug/L	0
Chloroform	< 150 ug/L	150 ug/L	0
1,1-Dichloropropene	< 150 ug/L	150 ug/L	0
1,1,1-Trichloroethane	< 150 ug/L	150 ug/L	0
Carbon tetrachloride	< 150 ug/L	150 ug/L	0
Bromochloromethane	< 150 ug/L	150 ug/L	0
Benzene	140 ug/L	150 ug/L	2
1,2-Dichloroethane	< 150 ug/L	150 ug/L	0
Trichloroethene	< 150 ug/L	150 ug/L	0
1,2-Dichloropropane	< 150 ug/L	150 ug/L	0
Dibromomethane	< 150 ug/L	150 ug/L	0
Bromodichloromethane	< 150 ug/L	150 ug/L	0
2-Chloroethyl vinyl ether	< 150 ug/L	150 ug/L	0
cis-1,3-Dichloropropene	< 150 ug/L	150 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 150 ug/L	150 ug/L	0
Toluene	190 ug/L	150 ug/L	0
trans-1,3-Dichloropropene	< 150 ug/L	150 ug/L	0
1,1,2-Trichloroethane	< 150 ug/L	150 ug/L	0
1,3-Dichloropropane	< 150 ug/L	150 ug/L	0
Tetrachloroethene	< 150 ug/L	150 ug/L	0
2-Hexanone	< 150 ug/L	150 ug/L	0
Dibromochloromethane	< 150 ug/L	150 ug/L	0
1,2-Dibromoethane (EDB)	< 150 ug/L	150 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014027

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-19

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 150 ug/L	150 ug/L	0
Isopropylbenzene	< 150 ug/L	150 ug/L	0
1,1,1,2-tetrachloroethane	< 150 ug/L	150 ug/L	0
Ethylbenzene	120 ug/L	150 ug/L	2
m-p-Xylene	< 300 ug/L	300 ug/L	0
o-Xylene	< 150 ug/L	150 ug/L	0
Styrene	< 150 ug/L	150 ug/L	0
Bromoform	< 150 ug/L	150 ug/L	0
1,4-Dichlorobutane	< 150 ug/L	150 ug/L	0
1,1,2,2-Tetrachloroethane	< 150 ug/L	150 ug/L	0
1,2,3-Trichloropropane	< 150 ug/L	150 ug/L	0
n-Propyl benzene	< 150 ug/L	150 ug/L	0
Bromobenzene	< 150 ug/L	150 ug/L	0
1,3,5-trimethylbenzene	< 150 ug/L	150 ug/L	0
2-Chlorotoluene	< 150 ug/L	150 ug/L	0
4-Chlorotoluene	< 150 ug/L	150 ug/L	0
t-Butylbenzene	< 150 ug/L	150 ug/L	0
1,2,4-Trimethylbenzene	< 150 ug/L	150 ug/L	0
sec-Butylbenzene	< 150 ug/L	150 ug/L	0
p-Isopropyltoluene	< 150 ug/L	150 ug/L	0
1,3-Dichlorobenzene	< 150 ug/L	150 ug/L	0
1,4-Dichlorobenzene	< 150 ug/L	150 ug/L	0
n-Butylbenzene	< 150 ug/L	150 ug/L	0
1,2-Dichlorobenzene	< 150 ug/L	150 ug/L	0
1,2-Dibromo-3-chloropropane	< 150 ug/L	150 ug/L	0
1,2,4-Trichlorobenzene	< 150 ug/L	150 ug/L	0
Hexachlorobutadiene	< 150 ug/L	150 ug/L	0
Naphthalene	3100 ug/L	150 ug/L	0
1,2,3-Trichlorobenzene	< 150 ug/L	150 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014028</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-20</b>		
Collection Date: <b>6/15/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 150 ug/L	150 ug/L	0
Chloromethane	< 150 ug/L	150 ug/L	0
Vinyl chloride	< 150 ug/L	150 ug/L	0
Bromomethane	< 150 ug/L	150 ug/L	0
Chloroethane	< 150 ug/L	150 ug/L	0
Trichlorofluoromethane	< 150 ug/L	150 ug/L	0
Acrolein	< 150 ug/L	150 ug/L	0
1,1-Dichloroethene	< 150 ug/L	150 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 150 ug/L	150 ug/L	0
Acetone	< 150 ug/L	150 ug/L	1
Methyl iodide	< 150 ug/L	150 ug/L	0
Carbon disulfide	< 150 ug/L	150 ug/L	0
Methylene chloride	< 150 ug/L	150 ug/L	0
Acrylonitrile	< 150 ug/L	150 ug/L	0
MTBE	< 150 ug/L	150 ug/L	0
trans-1,2-Dichloroethene	< 150 ug/L	150 ug/L	0
Isopropyl ether	< 150 ug/L	150 ug/L	0
1,1-Dichloroethane	< 150 ug/L	150 ug/L	0
Vinyl acetate	< 150 ug/L	150 ug/L	0
2,2-Dichloropropane	< 150 ug/L	150 ug/L	0
cis-1,2-Dichloroethene	< 150 ug/L	150 ug/L	0
2-Butanone	< 150 ug/L	150 ug/L	0
Chloroform	< 150 ug/L	150 ug/L	0
1,1-Dichloropropene	< 150 ug/L	150 ug/L	0
1,1,1-Trichloroethane	< 150 ug/L	150 ug/L	0
Carbon tetrachloride	< 150 ug/L	150 ug/L	0
Bromochloromethane	< 150 ug/L	150 ug/L	0
Benzene	860 ug/L	150 ug/L	0
1,2-Dichloroethane	< 150 ug/L	150 ug/L	0
Trichloroethene	< 150 ug/L	150 ug/L	0
1,2-Dichloropropane	< 150 ug/L	150 ug/L	0
Dibromomethane	< 150 ug/L	150 ug/L	0
Bromodichloromethane	< 150 ug/L	150 ug/L	0
2-Chloroethyl vinyl ether	< 150 ug/L	150 ug/L	0
cis-1,3-Dichloropropene	< 150 ug/L	150 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 150 ug/L	150 ug/L	0
Toluene	140 ug/L	150 ug/L	2
trans-1,3-Dichloropropene	< 150 ug/L	150 ug/L	0
1,1,2-Trichloroethane	< 150 ug/L	150 ug/L	0
1,3-Dichloropropane	< 150 ug/L	150 ug/L	0
Tetrachloroethene	< 150 ug/L	150 ug/L	0
2-Hexanone	< 150 ug/L	150 ug/L	0
Dibromochloromethane	< 150 ug/L	150 ug/L	0
1,2-Dibromoethane (EDB)	< 150 ug/L	150 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014028

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-20

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 150 ug/L	150 ug/L	0
Isopropylbenzene	< 150 ug/L	150 ug/L	0
1,1,1,2-tetrachloroethane	< 150 ug/L	150 ug/L	0
Ethylbenzene	290 ug/L	150 ug/L	0
m-p-Xylene	170 ug/L	300 ug/L	2
o-Xylene	< 150 ug/L	150 ug/L	0
Styrene	< 150 ug/L	150 ug/L	0
Bromoform	< 150 ug/L	150 ug/L	0
1,4-Dichlorobutane	< 150 ug/L	150 ug/L	0
1,1,2,2-Tetrachloroethane	< 150 ug/L	150 ug/L	0
1,2,3-Trichloropropane	< 150 ug/L	150 ug/L	0
n-Propyl benzene	< 150 ug/L	150 ug/L	0
Bromobenzene	< 150 ug/L	150 ug/L	0
1,3,5-trimethylbenzene	< 150 ug/L	150 ug/L	0
2-Chlorotoluene	< 150 ug/L	150 ug/L	0
4-Chlorotoluene	< 150 ug/L	150 ug/L	0
t-Butylbenzene	< 150 ug/L	150 ug/L	0
1,2,4-Trimethylbenzene	< 150 ug/L	150 ug/L	0
sec-Butylbenzene	< 150 ug/L	150 ug/L	0
p-Isopropyltoluene	< 150 ug/L	150 ug/L	0
1,3-Dichlorobenzene	< 150 ug/L	150 ug/L	0
1,4-Dichlorobenzene	< 150 ug/L	150 ug/L	0
n-Butylbenzene	< 150 ug/L	150 ug/L	0
1,2-Dichlorobenzene	< 150 ug/L	150 ug/L	0
1,2-Dibromo-3-chloropropane	< 150 ug/L	150 ug/L	0
1,2,4-Trichlorobenzene	< 150 ug/L	150 ug/L	0
Hexachlorobutadiene	< 150 ug/L	150 ug/L	0
Naphthalene	4200 ug/L	150 ug/L	0
1,2,3-Trichlorobenzene	< 150 ug/L	150 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
 Date Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014035

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-21

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 75 ug/L	75 ug/L	0
Chloromethane	< 75 ug/L	75 ug/L	0
Vinyl chloride	< 75 ug/L	75 ug/L	0
Bromomethane	< 75 ug/L	75 ug/L	0
Chloroethane	< 75 ug/L	75 ug/L	0
Trichlorofluoromethane	< 75 ug/L	75 ug/L	0
Acrolein	< 75 ug/L	75 ug/L	0
1,1-Dichloroethene	< 75 ug/L	75 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 75 ug/L	75 ug/L	0
Acetone	< 75 ug/L	75 ug/L	1
Methyl iodide	< 75 ug/L	75 ug/L	0
Carbon disulfide	< 75 ug/L	75 ug/L	0
Methylene chloride	< 75 ug/L	75 ug/L	0
Acrylonitrile	< 75 ug/L	75 ug/L	0
MTBE	< 75 ug/L	75 ug/L	0
trans-1,2-Dichloroethene	< 75 ug/L	75 ug/L	0
Isopropyl ether	< 75 ug/L	75 ug/L	0
1,1-Dichloroethane	< 75 ug/L	75 ug/L	0
Vinyl acetate	< 75 ug/L	75 ug/L	0
2,2-Dichloropropane	< 75 ug/L	75 ug/L	0
cis-1,2-Dichloroethene	< 75 ug/L	75 ug/L	0
2-Butanone	< 75 ug/L	75 ug/L	0
Chloroform	< 75 ug/L	75 ug/L	0
1,1-Dichloropropene	< 75 ug/L	75 ug/L	0
1,1,1-Trichloroethane	< 75 ug/L	75 ug/L	0
Carbon tetrachloride	< 75 ug/L	75 ug/L	0
Bromochloromethane	< 75 ug/L	75 ug/L	0
Benzene	840 ug/L	75 ug/L	0
1,2-Dichloroethane	< 75 ug/L	75 ug/L	0
Trichloroethene	< 75 ug/L	75 ug/L	0
1,2-Dichloropropane	< 75 ug/L	75 ug/L	0
Dibromomethane	< 75 ug/L	75 ug/L	0
Bromodichloromethane	< 75 ug/L	75 ug/L	0
2-Chloroethyl vinyl ether	< 75 ug/L	75 ug/L	0
cis-1,3-Dichloropropene	< 75 ug/L	75 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 75 ug/L	75 ug/L	0
Toluene	610 ug/L	75 ug/L	0
trans-1,3-Dichloropropene	< 75 ug/L	75 ug/L	0
1,1,2-Trichloroethane	< 75 ug/L	75 ug/L	0
1,3-Dichloropropane	< 75 ug/L	75 ug/L	0
Tetrachloroethene	< 75 ug/L	75 ug/L	0
2-Hexanone	< 75 ug/L	75 ug/L	0
Dibromochloromethane	< 75 ug/L	75 ug/L	0
1,2-Dibromoethane (EDB)	< 75 ug/L	75 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014035

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-21

Collection Date: 6/16/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 75 ug/L	75 ug/L	0
Isopropylbenzene	< 75 ug/L	75 ug/L	0
1,1,1,2-tetrachloroethane	< 75 ug/L	75 ug/L	0
Ethylbenzene	150 ug/L	75 ug/L	0
m-p-Xylene	280 ug/L	150 ug/L	0
o-Xylene	130 ug/L	75 ug/L	0
Styrene	< 75 ug/L	75 ug/L	0
Bromofom	< 75 ug/L	75 ug/L	0
1,4-Dichlorobutane	< 75 ug/L	75 ug/L	0
1,1,2,2-Tetrachloroethane	< 75 ug/L	75 ug/L	0
1,2,3-Trichloropropane	< 75 ug/L	75 ug/L	0
n-Propyl benzene	< 75 ug/L	75 ug/L	0
Bromobenzene	< 75 ug/L	75 ug/L	0
1,3,5-trimethylbenzene	< 75 ug/L	75 ug/L	0
2-Chlorotoluene	< 75 ug/L	75 ug/L	0
4-Chlorotoluene	< 75 ug/L	75 ug/L	0
t-Butylbenzene	< 75 ug/L	75 ug/L	0
1,2,4-Trimethylbenzene	67 ug/L	75 ug/L	2
sec-Butylbenzene	< 75 ug/L	75 ug/L	0
p-Isopropyltoluene	< 75 ug/L	75 ug/L	0
1,3-Dichlorobenzene	< 75 ug/L	75 ug/L	0
1,4-Dichlorobenzene	< 75 ug/L	75 ug/L	0
n-Butylbenzene	< 75 ug/L	75 ug/L	0
1,2-Dichlorobenzene	< 75 ug/L	75 ug/L	0
1,2-Dibromo-3-chloropropane	< 75 ug/L	75 ug/L	0
1,2,4-Trichlorobenzene	< 75 ug/L	75 ug/L	0
Hexachlorobutadiene	< 75 ug/L	75 ug/L	0
Naphthalene	3000 ug/L	75 ug/L	0
1,2,3-Trichlorobenzene	< 75 ug/L	75 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date







# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014036</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-22</b>		
Collection Date: <b>6/14/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014036

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-22

Collection Date: 6/14/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisman* 7/16/99

Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014037</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-24</b>		
Collection Date: <b>6/14/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014037

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-24

Collection Date: 6/14/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromofom	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014038</b>	Job #: <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>MW-23</b>		
Collection Date: <b>6/14/99</b>	Site : <b>BRAMLETT ST</b>	Type of Sample : <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014038

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-23

Collection Date: 6/14/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromotom	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenand 7/16/99*  
Data Verified and Approved By, Date

## Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

Surrogates	
	% Recovery
Dibromofluoromethane	102%
Toluene D-8	110%
1,4-Bromofluorobenze	91%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @ 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014039

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: MW-25

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014039</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>MW-25</b>		
Collection Date: <b>6/15/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromofom	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/14/99  
Date Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	8.99
D4-1,4-Difluorobenzene	10.53
Chlorobenzene D-5	16.75
D-4 1,4-Dichlorobenzene	21.89

Surrogates	
	% Recovery
Dibromofluoromethane	101%
Toluene D-8	105%
1,4-Bromofluorobenze	90%

**USEPA - 8260 G.C. Conditions**  
 25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014040

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-1

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014040

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-1

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Droy Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	108%
Toluene D-8	97%
1,4-Bromofluorobenze	94%

**USEPA - 8260 G.C. Conditions**  
 105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014041

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-2

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014041

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-2

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: **99014042**

Job #: **99-JUN-0042**

Customer ID: G. FRANKLIN

Sample Description: **SW-3**

Collection Date: **6/17/99**

Site: **BRAMLETT ST**

Type of Sample: **GROUNDWATER**

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W**

Test Method: **SW-846 8260**

Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014042

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-3

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Gray Whisenant* 7/16/99  
 Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	104%
Toluene D-8	96%
1,4-Bromofluorobenze	94%

**USEPA - 8260 G.C. Conditions**  
 105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
 South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
 Phone: 704-875-5209 Fax: 704-875-5038

Sample ID # : <b>99014043</b>	Job # : <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>SW-4</b>		
Collection Date: 6/17/99	Site : BRAMLETT ST	Type of Sample : GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W Test Method: SW-846 8260 Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014043

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-4

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Mary Whisenant* 7/16/99  
Date Verified and Approved By, Date



# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

### Internal Standard

	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

### Surrogates

	% Recovery
Dibromofluoromethane	109%
Toluene D-8	100%
1,4-Bromofluorobenze	92%

### USEPA - 8260 G.C. Conditions

105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID # : <b>99014046</b>	Job # : <b>99-JUN-0042</b>	Customer ID: G. FRANKLIN
Sample Description: <b>SW-5</b>		
Collection Date: <b>6/17/99</b>	Site : <b>BRAMLETT ST</b>	Type of Sample : <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014046

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-5

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99

Date Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Time (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

### Internal Standard

	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

### Surrogates

	% Recovery
Dibromofluoromethane	108%
Toluene D-8	100%
1,4-Bromofluorobenze	92%

### USEPA - 8260 G.C. Conditions

105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014047</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>SW-7</b>		
Collection Date: <b>6/17/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W**

Test Method: **SW-846 8260**

Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014047

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-7

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MA0125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Doug Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	111%
Toluene D-8	101%
1,4-Bromofluorobenze	93%

**USEPA - 8260 G.C. Conditions**  
 105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014048

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-8

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014048

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-8

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisnant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

### Internal Standard

	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

### Surrogates

	% Recovery
Dibromofluoromethane	107%
Toluene D-8	100%
1,4-Bromofluorobenze	93%

### USEPA - 8260 G.C. Conditions

105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014049

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-9

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209

Fax: 704-875-5038

Sample ID #: 99014049

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-9

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Greg Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	108%
Toluene D-8	99%
1,4-Bromofluorobenze	92%

USEPA - 8260 G.C. Conditions  
 105 m x 0.53 mm x 1.0 um / Restek 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014050

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-10

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014050

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: SW-10

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	111%
Toluene D-8	102%
1,4-Bromofluorobenze	92%

**USEPA - 8260 G.C. Conditions**  
105 m x 0.53 mm x 1.0 um / Restek 502.2  
He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
4 C/min, 180 to 200 C @ 10 C/min, hold 5 min





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014051</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>TRIP BLANK</b>		
Collection Date: <b>6/17/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014051

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: TRIP BLANK

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- |                             |  |
|-----------------------------|--|
| 0 - No Discrepancies Noted  | 3 - Detected in Blank                              |
| 1 - See Case Narrative      | 4 - Estimated Concentration also Detected in Blank |
| 2 - Estimated Concentration | 5 - For Information Only                           |

*Troy Whisenant* 7/16/99  
Date Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	
	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	
	% Recovery
Dibromofluoromethane	108%
Toluene D-8	97%
1,4-Bromofluorobenze	94%

**USEPA - 8260 G.C. Conditions**  
 105 m x 0.53 mm x 1.0 um / Restak 502.2  
 He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @  
 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014052</b>	Job #: <b>99-JUN-0042</b>	Customer ID: <b>G. FRANKLIN</b>
Sample Description: <b>FIELD BLANK</b>		
Collection Date: <b>6/17/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	0
Chloromethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	0
Bromomethane	< 3.0 ug/L	3.0 ug/L	0
Chloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	0
Acrolein	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	0
Acetone	< 3.0 ug/L	3.0 ug/L	0
Methyl iodide	< 3.0 ug/L	3.0 ug/L	0
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	0
Methylene chloride	< 3.0 ug/L	3.0 ug/L	0
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	0
MTBE	< 3.0 ug/L	3.0 ug/L	0
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
Isopropyl ether	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	0
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Butanone	< 3.0 ug/L	3.0 ug/L	0
Chloroform	< 3.0 ug/L	3.0 ug/L	0
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	0
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	0
Benzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	0
Trichloroethene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Dibromomethane	< 3.0 ug/L	3.0 ug/L	0
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	0
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	0
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	0
Toluene	< 3.0 ug/L	3.0 ug/L	0
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	0
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	0
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	0
2-Hexanone	< 3.0 ug/L	3.0 ug/L	0
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014052

Job #: 99-JUN-0042

Customer ID: G. FRANKLIN

Sample Description: FIELD BLANK

Collection Date: 6/17/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
Ethylbenzene	< 3.0 ug/L	3.0 ug/L	0
m-p-Xylene	< 6.0 ug/L	6.0 ug/L	0
o-Xylene	< 3.0 ug/L	3.0 ug/L	0
Styrene	< 3.0 ug/L	3.0 ug/L	0
Bromoform	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	0
1,1,2,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	0
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	0
Bromobenzene	< 3.0 ug/L	3.0 ug/L	0
1,3,5-trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	0
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trimethylbenzene	< 3.0 ug/L	3.0 ug/L	0
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	0
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	0
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	0
Naphthalene	< 3.0 ug/L	3.0 ug/L	0
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Troy Whisenant* 7/16/99  
Data Verified and Approved By, Date

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
no TICs								

Internal Standard	RT
Pentafluorobenzene	17.95
D4-1,4-Difluorobenzene	21.55
Chlorobenzene D-5	32.23
D-4 1,4-Dichlorobenzene	40.87

Surrogates	% Recovery
Dibromofluoromethane	109%
Toluene D-8	100%
1,4-Bromofluorobenze	94%

USEPA - 8260 G.C. Conditions  
105 m x 0.53 mm x 1.0 um / Restek 502.2  
He, 0.5 ml/min, 35 C hold 10 mins, 35 C to 180 C @ 4 C/min, 180 to 200 C @ 10 C/min, hold 5 min



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: <b>99014057</b>	Job #: <b>99-JUN-0042</b>	Customer ID:
Sample Description: <b>BRAMLETTE ST MW-3D</b>		
Collection Date: <b>6/15/99</b>	Site: <b>BRAMLETT ST</b>	Type of Sample: <b>GROUNDWATER</b>

## VOC IN WATER BY GC/MS - 8260

Test Code: **MS8260\_W** Test Method: **SW-846 8260** Analyst: **MAO125C**

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 300 ug/L	300 ug/L	0
Chloromethane	< 300 ug/L	300 ug/L	0
Vinyl chloride	< 300 ug/L	300 ug/L	0
Bromomethane	< 300 ug/L	300 ug/L	0
Chloroethane	< 300 ug/L	300 ug/L	0
Trichlorofluoromethane	< 300 ug/L	300 ug/L	0
Acrolein	< 300 ug/L	300 ug/L	0
1,1-Dichloroethene	< 300 ug/L	300 ug/L	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 300 ug/L	300 ug/L	0
Acetone	< 300 ug/L	300 ug/L	0
Methyl iodide	< 300 ug/L	300 ug/L	0
Carbon disulfide	< 300 ug/L	300 ug/L	0
Methylene chloride	< 300 ug/L	300 ug/L	0
Acrylonitrile	< 300 ug/L	300 ug/L	0
MTBE	< 300 ug/L	300 ug/L	0
trans-1,2-Dichloroethene	< 300 ug/L	300 ug/L	0
Isopropyl ether	< 300 ug/L	300 ug/L	0
1,1-Dichloroethane	< 300 ug/L	300 ug/L	0
Vinyl acetate	< 300 ug/L	300 ug/L	0
2,2-Dichloropropane	< 300 ug/L	300 ug/L	0
cis-1,2-Dichloroethene	< 300 ug/L	300 ug/L	0
2-Butanone	< 300 ug/L	300 ug/L	0
Chloroform	< 300 ug/L	300 ug/L	0
1,1-Dichloropropene	< 300 ug/L	300 ug/L	0
1,1,1-Trichloroethane	< 300 ug/L	300 ug/L	0
Carbon tetrachloride	< 300 ug/L	300 ug/L	0
Bromochloromethane	< 300 ug/L	300 ug/L	0
Benzene	990 ug/L	300 ug/L	0
1,2-Dichloroethane	< 300 ug/L	300 ug/L	0
Trichloroethene	< 300 ug/L	300 ug/L	0
1,2-Dichloropropane	< 300 ug/L	300 ug/L	0
Dibromomethane	< 300 ug/L	300 ug/L	0
Bromodichloromethane	< 300 ug/L	300 ug/L	0
2-Chloroethyl vinyl ether	< 300 ug/L	300 ug/L	0
cis-1,3-Dichloropropene	< 300 ug/L	300 ug/L	0
4-Methyl-2-pentanone (MIBK)	< 300 ug/L	300 ug/L	0
Toluene	< 300 ug/L	300 ug/L	0
trans-1,3-Dichloropropene	< 300 ug/L	300 ug/L	0
1,1,2-Trichloroethane	< 300 ug/L	300 ug/L	0
1,3-Dichloropropane	< 300 ug/L	300 ug/L	0
Tetrachloroethene	< 300 ug/L	300 ug/L	0
2-Hexanone	< 300 ug/L	300 ug/L	0
Dibromochloromethane	< 300 ug/L	300 ug/L	0
1,2-Dibromoethane (EDB)	< 300 ug/L	300 ug/L	0



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

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North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 99014057

Job #: 99-JUN-0042

Customer ID:

Sample Description: BRAMLETTE ST MW-3D

Collection Date: 6/15/99

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
Chlorobenzene	< 300 ug/L	300 ug/L	0
Isopropylbenzene	< 300 ug/L	300 ug/L	0
1,1,1,2-tetrachloroethane	< 300 ug/L	300 ug/L	0
Ethylbenzene	430 ug/L	300 ug/L	0
m-p-Xylene	< 600 ug/L	600 ug/L	0
o-Xylene	< 300 ug/L	300 ug/L	0
Styrene	< 300 ug/L	300 ug/L	0
Bromoform	< 300 ug/L	300 ug/L	0
1,4-Dichlorobutane	< 300 ug/L	300 ug/L	0
1,1,2,2-Tetrachloroethane	< 300 ug/L	300 ug/L	0
1,2,3-Trichloropropane	< 300 ug/L	300 ug/L	0
n-Propyl benzene	< 300 ug/L	300 ug/L	0
Bromobenzene	< 300 ug/L	300 ug/L	0
1,3,5-trimethylbenzene	< 300 ug/L	300 ug/L	0
2-Chlorotoluene	< 300 ug/L	300 ug/L	0
4-Chlorotoluene	< 300 ug/L	300 ug/L	0
t-Butylbenzene	< 300 ug/L	300 ug/L	0
1,2,4-Trimethylbenzene	< 300 ug/L	300 ug/L	0
sec-Butylbenzene	< 300 ug/L	300 ug/L	0
p-Isopropyltoluene	< 300 ug/L	300 ug/L	0
1,3-Dichlorobenzene	< 300 ug/L	300 ug/L	0
1,4-Dichlorobenzene	< 300 ug/L	300 ug/L	0
n-Butylbenzene	< 300 ug/L	300 ug/L	0
1,2-Dichlorobenzene	< 300 ug/L	300 ug/L	0
1,2-Dibromo-3-chloropropane	< 300 ug/L	300 ug/L	0
1,2,4-Trichlorobenzene	< 300 ug/L	300 ug/L	0
Hexachlorobutadiene	< 300 ug/L	300 ug/L	0
Naphthalene	5600 ug/L	300 ug/L	2
1,2,3-Trichlorobenzene	< 300 ug/L	300 ug/L	0

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only

*Doug Whisenant* 7/16/99  
Data Verified and Approved By, Date













# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038



Station Name: **BRAMLETT ST**

**ENG\_ROBERTS**

Job Number: **99-JUN-0042**

Sample ID #: **99014013**

LabProf ID:

Customer ID: **G. FRANKLIN**

Sample Description: **MW-5**

Collection Date: **14-Jun-99 15:35:00**

Location: **MW-5**

Type of Sample: **GROUNDWATER**

----- Analysis Results -----

ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.52 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	0.23 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.129 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	27.585 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	11.0 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	< 0.005 mg/l
IRON BY ICP (DIGESTED)	IRON	8.707 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	5.983 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	1.216 mg/L
MERCURY (CVAA) -WATER-	MERCURY	0.10 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	1.900 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	9.570 mg/l
SULFATE (UV-VIS)	SULFATE	25.2 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	4.56 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	0.007 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	< 4.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	0.011 mg/l

Sample ID #: **99014014**

LabProf ID:

Customer ID: **G. FRANKLIN**

Sample Description: **MW-7**

Collection Date: **15-Jun-99 09:35:00**

Location: **MW-6**

Type of Sample: **GROUNDWATER**

----- Analysis Results -----

ACIDITY	ACIDITY	71.42 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	5.76 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	0.79 mg-N/L











# Duke Power's Analytical Laboratory

Group Environment, Health and Safety



North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Station Name: BRAMLETT ST

ENG\_ROBERTS

Job Number: 99-JUN-0042

Sample ID #: 99014017

LabProf ID:

Customer ID: G. FRANKLIN

Sample Description: MW-9

Collection Date: 15-Jun-99 11:25:00

Location: MW-9

Type of Sample: GROUNDWATER

----- Analysis Results -----

IRON BY ICP (DIGESTED)	IRON	0.419 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	3.272 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	5.922 mg/L
MERCURY (CVAA) -WATER-	MERCURY	< 0.10 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	7.550 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	16.060 mg/l
SULFATE (UV-VIS)	SULFATE	20.4 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	0.79 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	0.016 mg-P/l
TOTAL SUSPENDED SOLIDS (EPA)	TSS	6.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	< 0.005 mg/l

Sample ID #: 99014018

LabProf ID:

Customer ID: G. FRANKLIN

Sample Description: MW-10

Collection Date: 15-Jun-99 15:15:00

Location: MW-10

Type of Sample: GROUNDWATER

----- Analysis Results -----

ACIDITY	ACIDITY	39.20 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.49 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	< 0.02 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.060 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	6.298 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	9.6 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	< 0.005 mg/l
IRON BY ICP (DIGESTED)	IRON	1.562 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l



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 Phone: 704-875-5209 Fax: 704-875-5038



Station Name: **BRAMLETT ST**                      **ENG\_ROBERTS**                      Job Number: **99-JUN-0042**

Sample ID #: **99014018**                      LabProf ID:                      Customer ID: **G. FRANKLIN**  
 Sample Description: **MW-10**  
 Collection Date: **15-Jun-99 15:15:00**                      Location: **MW-10**                      Type of Sample: **GROUNDWATER**

-----  
 Analysis Results  
 -----

MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	3.539 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	0.452 mg/L
MERCURY (CVAA) -WATER-	MERCURY	0.12 ug/l
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	3.220 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	12.490 mg/l
SULFATE (UV-VIS)	SULFATE	83.9 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	1.16 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	0.010 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	7.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	0.005 mg/l

Sample ID #: **99014019**                      LabProf ID:                      Customer ID: **G. FRANKLIN**  
 Sample Description: **MW-11**  
 Collection Date: **15-Jun-99 11:30:00**                      Location: **MW-11**                      Type of Sample: **GROUNDWATER**

-----  
 Analysis Results  
 -----

ACIDITY	ACIDITY	2.68 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.13 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	0.05 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.058 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	0.538 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	7.7 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	< 0.005 mg/l
IRON BY ICP (DIGESTED)	IRON	0.211 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	0.508 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	0.081 mg/L



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038



Station Name: **BRAMLETT ST**

**ENG\_ROBERTS**

Job Number: **99-JUN-0042**

Sample ID #: **99014019**

LabProf ID:

Customer ID: **G. FRANKLIN**

Sample Description: **MW-11**

Location: **MW-11**

Type of Sample: **GROUNDWATER**

Collection Date: **15-Jun-99 11:30:00**

-----  
Analysis Results  
-----

MERCURY (CVAA) -WATER-	MERCURY	0.10 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	2.490 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	12.390 mg/l
SULFATE (UV-VIS)	SULFATE	6.2 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	0.44 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	< 0.005 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	8.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	< 0.005 mg/l

Sample ID #: **99014020**

LabProf ID:

Customer ID: **G. FRANKLIN**

Sample Description: **MW-12**

Location: **MW-12**

Type of Sample: **GROUNDWATER**

Collection Date: **15-Jun-99 11:05:00**

-----  
Analysis Results  
-----

ACIDITY	ACIDITY	3.56 mg-CaCO <sub>3</sub> /L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.12 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	0.13 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.056 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	8.932 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	4.8 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	< 0.005 mg/l
IRON BY ICP (DIGESTED)	IRON	4.612 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	2.391 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	0.170 mg/L
MERCURY (CVAA) -WATER-	MERCURY	< 0.10 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038



Station Name: **BRAMLETT ST**                                  **ENG\_ROBERTS**                                  Job Number: **99-JUN-0042**

Sample ID # : **99014020**                                  LabProf ID:                                  Customer ID: **G. FRANKLIN**  
Sample Description: **MW-12**  
Collection Date: **15-Jun-99 11:05:00**                                  Location : **MW-12**                                  Type of Sample : **GROUNDWATER**

-----  
Analysis Results  
-----

OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	2.410 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/l
SODIUM BY ICP (DIGESTED)	SODIUM	9.420 mg/l
SULFATE (UV-VIS)	SULFATE	81.2 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	2.02 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	0.015 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	11.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	0.037 mg/l

Sample ID # : **99014021**                                  LabProf ID:                                  Customer ID: **G. FRANKLIN**  
Sample Description: **MW-13**  
Collection Date: **15-Jun-99 09:40:00**                                  Location : **MW-13**                                  Type of Sample : **GROUNDWATER**

-----  
Analysis Results  
-----

ACIDITY	ACIDITY	43.60 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.27 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	< 0.02 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.095 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	2.388 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	8.8 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	< 0.005 mg/l
IRON BY ICP (DIGESTED)	IRON	0.710 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	1.272 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	1.098 mg/L
MERCURY (CVAA) -WATER-	MERCURY	0.13 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	4.380 mg/l



# Duke Power's Analytical Laboratory

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South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038



Station Name: **BRAMLETT ST**      **ENG\_ROBERTS**      Job Number: **99-JUN-0042**

Sample ID #: **99014021**      LabProf ID:      Customer ID: **G. FRANKLIN**

Sample Description: **MW-13**

Collection Date: **15-Jun-99 09:40:00**      Location: **MW-13**      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	6.600 mg/l
SULFATE (UV-VIS)	SULFATE	10.8 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	0.90 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	0.008 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	29.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	0.007 mg/l

Sample ID #: **99014022**      LabProf ID:      Customer ID: **G. FRANKLIN**

Sample Description: **MW-14**

Collection Date: **15-Jun-99 09:35:00**      Location: **MW-14**      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

ACIDITY	ACIDITY	1.45 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.21 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	< 0.02 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.102 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	5.374 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	5.1 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	< 0.005 mg/l
IRON BY ICP (DIGESTED)	IRON	2.261 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	1.368 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	0.274 mg/L
MERCURY (CVAA) -WATER-	MERCURY	0.15 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	3.450 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	6.290 mg/l

Station Name: **BRAMLETT ST**                      **ENG\_ROBERTS**                      Job Number: **99-JUN-0042**

Sample ID #: **99014022**                      LabProf ID:                      Customer ID: **G. FRANKLIN**  
Sample Description: **MW-14**  
Collection Date: **15-Jun-99 09:35:00**                      Location: **MW-14**                      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

SULFATE (UV-VIS)	SULFATE	19.2 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	0.87 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	< 0.005 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	141.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	0.008 mg/l

Sample ID #: **99014023**                      LabProf ID:                      Customer ID: **G. FRANKLIN**  
Sample Description: **MW-15**  
Collection Date: **16-Jun-99 14:10:00**                      Location: **MW-15**                      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

ACIDITY	ACIDITY	12.81 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.70 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	0.65 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIIUM BY ICP (DIGESTED)	BARIIUM	0.072 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	18.909 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	4.8 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	< 0.005 mg/l
IRON BY ICP (DIGESTED)	IRON	0.290 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	5.178 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	5.017 mg/L
MERCURY (CVAA) -WATER-	MERCURY	< 0.10 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	12.450 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	16.600 mg/l
SULFATE (UV-VIS)	SULFATE	17.8 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety



North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Station Name: **BRAMLETT ST**                                      **ENG\_ROBERTS**                                      Job Number: **99-JUN-0042**

Sample ID #: **99014023**                                      LabProf ID:                                      Customer ID: **G. FRANKLIN**  
Sample Description: **MW-15**  
Collection Date: **16-Jun-99 14:10:00**                                      Location: **MW-15**                                      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	0.73 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	0.021 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	8.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	0.014 mg/l

Sample ID #: **99014024**                                      LabProf ID:                                      Customer ID: **G. FRANKLIN**  
Sample Description: **MW-16**  
Collection Date: **16-Jun-99 09:28:00**                                      Location: **MW-16**                                      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.66 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	0.56 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIIUM BY ICP (DIGESTED)	BARIIUM	0.077 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	99.021 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	7.0 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	0.006 mg/l
IRON BY ICP (DIGESTED)	IRON	7.046 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	7.411 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	0.125 mg/L
MERCURY (CVAA) -WATER-	MERCURY	0.12 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	6.250 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	6.790 mg/l
SULFATE (UV-VIS)	SULFATE	151.3 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	4.70 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	< 0.005 mg-P/L

Station Name: **BRAMLETT ST**      **ENG\_ROBERTS**      Job Number: **99-JUN-0042**

Sample ID #: **99014024**      LabProf ID:      Customer ID: **G. FRANKLIN**  
Sample Description: **MW-16**  
Collection Date: **16-Jun-99 09:28:00**      Location: **MW-16**      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

TOTAL SUSPENDED SOLIDS (EPA)	TSS	306.0 mg/L
ZINC BY ICP (DIGESTED)	ZINC	0.288 mg/l

Sample ID #: **99014025**      LabProf ID:      Customer ID: **G. FRANKLIN**  
Sample Description: **MW-17**  
Collection Date: **15-Jun-99 10:50:00**      Location: **MW-17**      Type of Sample: **GROUNDWATER**

-----  
Analysis Results  
-----

ACIDITY	ACIDITY	3.98 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.46 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	1.44 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.233 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	6.404 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	11.9 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	0.053 mg/l
IRON BY ICP (DIGESTED)	IRON	49.403 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	7.197 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	0.799 mg/L
MERCURY (CVAA) -WATER-	MERCURY	0.94 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	1.8 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	9.860 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	10.490 mg/l
SULFATE (UV-VIS)	SULFATE	< 1.0 mg/L
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	3.24 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	< 0.005 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	1920.0 mg/L





























# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038



Station Name: **BRAMLETT ST**                      **ENG\_ROBERTS**                      Job Number: **99-JUN-0042**

Sample ID #: **99014042**                      LabProf ID:                      Customer ID: **G. FRANKLIN**  
Sample Description: **SW-3**  
Collection Date: **17-Jun-99 10:38:00**                      Location: **SW3**                      Type of Sample: **GROUNDWATER**

----- Analysis Results -----

ZINC BY ICP (DIGESTED)                      ZINC                      0.014 mg/l

Sample ID #: **99014043**                      LabProf ID:                      Customer ID: **G. FRANKLIN**  
Sample Description: **SW-4**  
Collection Date: **17-Jun-99 10:45:00**                      Location: **SW4**                      Type of Sample: **GROUNDWATER**

----- Analysis Results -----

ACIDITY	ACIDITY	2.98 mg-CaCO3/L
ALKALINITY (TOTAL INFLECTION POINT)	ALKALINITY	0.24 meq/L
AMMONIA (COLORIMETRIC)	AMMONIA	0.08 mg-N/L
ARSENIC BY ICP (DIGESTED)	ARSENIC	< 0.100 mg/l
BARIUM BY ICP (DIGESTED)	BARIUM	0.034 mg/l
CADMIUM BY ICP (DIGESTED)	CADMIUM	< 0.030 mg/l
CALCIUM BY ICP (DIGESTED)	CALCIUM	3.596 mg/l
CHLORIDE (COLORIMETRIC)	CHLORIDE	4.8 mg/L
CHROMIUM BY ICP (DIGESTED)	CHROMIUM	< 0.040 mg/l
COPPER BY ICP (DIGESTED)	COPPER	0.014 mg/l
IRON BY ICP (DIGESTED)	IRON	2.838 mg/l
LEAD BY ICP (DIGESTED)	LEAD	< 0.090 mg/l
MAGNESIUM BY ICP (DIGESTED)	MAGNESIUM	1.089 mg/l
MANGANESE BY ICP (DIGESTED)	MANGANESE	0.078 mg/L
MERCURY (CVAA) -WATER-	MERCURY	0.10 ug/L
NICKEL BY ICP (DIGESTED)	NICKEL	< 0.040 mg/l
OIL AND GREASE IN WATER	Oil and Grease	< 1.0 mg/L
POTASSIUM BY ICP (DIGESTED)	POTASSIUM	1.870 mg/l
SELENIUM BY ICP (DIGESTED)	SELENIUM	< 0.125 mg/L
SODIUM BY ICP (DIGESTED)	SODIUM	3.470 mg/l
SULFATE (UV-VIS)	SULFATE	3.5 mg/l
TIN BY ICP (DIGESTED)	TIN	< 0.050 mg/l
TOTAL CYANIDE	CYANIDE TEST COMPLETED	
TOTAL ORGANIC CARBON	TOC	3.97 mg/L
TOTAL PHOSPHORUS (COLORIMETRIC)	TP	0.030 mg-P/L
TOTAL SUSPENDED SOLIDS (EPA)	TSS	24.0 mg/L

















ID	Test Code	Site	Location	Depth/Type	Status	Sel
99014009	ACIDITY	BRAMLETT ST	MW-1	GROUNDWATER	Validated	
99014010	ACIDITY	BRAMLETT ST	MW-2	GROUNDWATER	Validated	
99014011	ACIDITY	BRAMLETT ST	MW-3	GROUNDWATER	Validated	
99014013		BRAMLETT ST	MW-5	GROUNDWATER	Test Pendi	X
99014014	ACIDITY	BRAMLETT ST	MW-6	GROUNDWATER	Validated	
99014015		BRAMLETT ST	MW-7	GROUNDWATER	Test Pendi	X
99014016	ACIDITY	BRAMLETT ST	MW-8	GROUNDWATER	Validated	
99014017	ACIDITY	BRAMLETT ST	MW-9	GROUNDWATER	Validated	
99014018	ACIDITY	BRAMLETT ST	MW-10	GROUNDWATER	Validated	
99014019	ACIDITY	BRAMLETT ST	MW-11	GROUNDWATER	Validated	
99014020	ACIDITY	BRAMLETT ST	MW-12	GROUNDWATER	Validated	
99014021	ACIDITY	BRAMLETT ST	MW-13	GROUNDWATER	Validated	
99014022	ACIDITY	BRAMLETT ST	MW-14	GROUNDWATER	Validated	
99014023	ACIDITY	BRAMLETT ST	MW-15	GROUNDWATER	Validated	
99014024		BRAMLETT ST	MW-16	GROUNDWATER	Test Pendi	X
99014025	ACIDITY	BRAMLETT ST	MW-17	GROUNDWATER	Validated	
99014026	ACIDITY	BRAMLETT ST	MW-18	GROUNDWATER	Validated	
99014027	ACIDITY	BRAMLETT ST	MW-19	GROUNDWATER	Validated	
99014028	ACIDITY	BRAMLETT ST	MW-20	GROUNDWATER	Validated	
99014035	ACIDITY	BRAMLETT ST	MW-21	GROUNDWATER	Validated	
99014036	ACIDITY	BRAMLETT ST	MW-22	GROUNDWATER	Validated	
99014037	ACIDITY	BRAMLETT ST	MW-23	GROUNDWATER	Validated	
99014038	ACIDITY	BRAMLETT ST	MW-24	GROUNDWATER	Validated	
99014039	ACIDITY	BRAMLETT ST	MW-25	GROUNDWATER	Validated	
99014040	ACIDITY	BRAMLETT ST	SW1	GROUNDWATER	Validated	
99014041	ACIDITY	BRAMLETT ST	SW2	GROUNDWATER	Validated	
99014042	ACIDITY	BRAMLETT ST	SW3	GROUNDWATER	Validated	
99014043	ACIDITY	BRAMLETT ST	SW4	GROUNDWATER	Validated	
99014046	ACIDITY	BRAMLETT ST	SW5	GROUNDWATER	Validated	
99014047	ACIDITY	BRAMLETT ST	SW7	GROUNDWATER	Validated	
99014048	ACIDITY	BRAMLETT ST	SW8	GROUNDWATER	Validated	
99014049	ACIDITY	BRAMLETT ST	SW9	GROUNDWATER	Validated	
99014050	ACIDITY	BRAMLETT ST	SW-10	GROUNDWATER	Validated	
99014052	ACIDITY	BRAMLETT ST	FIELD	GROUNDWATER	Validated	
99014057		BRAMLETT ST	MW-3D	GROUNDWATER	Test Pendi	X

Acidity not completed on  
 The marked (X) spots above requested by  
 due to high pH ~ 8.3 (R.D. Morehead Analyst)

7/14/99 T. Whisenant

Duke Power's Analytical Laboratory  
 MNS Bldg. # 7405 MGO3A2  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078  
 Phone: (704) 875-5209/875-5245  
 Fax: (704) 875-5038

reviously Form 35226

Container Type: ( ) Glass ( ) Plastic

**LAB USE**  
 LIMS # 99-JUN-0042 Sample Class MGP  
 Logged By (Ini.) \_\_\_\_\_ Date \_\_\_\_\_  
 Venclored Samples  
 Vendor \_\_\_\_\_ Analysis \_\_\_\_\_  
 Vendor \_\_\_\_\_ P.O. # \_\_\_\_\_

CLIENT: 0702MGPVGBRMST Report to/Ph GLF4844  
 Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3  
 Business Unit: 20018 Resp. Center To: 0897  
 Project ID: MGPBRAM  
 Activity ID: ALLACTV  
 Process: AWC 245

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		Analysis Required	COMP	EPA 8260	EPA 8270	CL, NH3	ALK, SO4, ACIDITY	TOC	TSS	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	OIL & GREASE	CYANIDE	HG	TOTAL # OF CONTAINERS
			Date	Time													
99014009	MW-1	503226	6-16-99	1420	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4010	MW-2	503234	6-16-99	1110	L.D. Campbell	3	1	1	1	1	1	1	1	1	1	1	12
4011	MW-3 ✓	503242	6-15-99	1520	T. Hummer	3	1	1	1	1	1	1	1	1	1	1	12
4012	MW-4	503325	6-17-99	0849	L.D. Campbell	3	1	1	1	1	1	1	1	1	1	1	12
4013	MW-5	503341	6-14-99	1535	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4014	MW-6 - MW 7	503408	6-15-99	0935	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4015	MW-7	503440	6-16-99	0915	L.D. Campbell	3	1	1	1	1	1	1	1	1	1	1	12
4016	MW-8	503401	6-15-99	0945	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4017	MW-9	503515	6-15-99	1125	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4018	MW-10	503549	6-15-99	1515	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4019	MW-11 ✓	503556	6-15-99	1130	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4020	MW-12	503564	6-15-99	1105	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4021	MW-13	503580	6-15-99	0940	T. Hummer	3	1	1	1	1	1	1	1	1	1	1	12
4022	MW-14	503606	6-15-99	0935	T. Hummer	3	1	1	1	1	1	1	1	1	1	1	12
4023	MW-15	503614	6-16-99	1410	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12
4024	MW-16	503630	6-16-99	0928	R.H. Connolly	3	1	1	1	1	1	1	1	1	1	1	12

Relinquished by: W.H. Burns Date/Time 0740 6/18/99  
 Accepted By: David J. Patten Date/Time 0740 6/18/99  
 Relinquished by: David J. Patten Date/Time 6/18/99 1505  
 Sealed/locked by: \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Seal/Lock Opened By: \_\_\_\_\_ Date/Time \_\_\_\_\_

Turnaround Requested  
 Routine (2 weeks)  
 Rush (1 week)  
 Emergency Rush (24-48 Hrs.)\*  
 Date Results Requested: \_\_\_\_\_  
 \* Additional Charges Will Apply

Sample Matrix  NC  SC  TEMP:  
 Ground Water  NPDES   
 Drinking Water  UST   
 RCRA Waste  Other   
 Comments: \_\_\_\_\_



CHAIN OF CUSTODY REQUEST AND ANALYSIS REQUEST FORM

Container Type: ( ) Glass ( ) Plastic

**LAB USE**

LIMS # 99 JUN-0042 Sample Class M&P

Logged By (Ini.) \_\_\_\_\_ Date \_\_\_\_\_

Time \_\_\_\_\_

Venclored Samples

Vendor \_\_\_\_\_ Analysis \_\_\_\_\_

Vendor \_\_\_\_\_ P.O.# \_\_\_\_\_

CLIENT: 0702MGPGVLRMST Report to/Ph. GLF/4844

Project Name: GREENVILLE BRAMLETT ST Mail Code: MGO3A3

Business Unit: 20018 Resp. Center To: 0897

Project ID: MGPBRAM

Activity ID: ALLACTV

Process: \_\_\_\_\_

Sample #	Lab PROFS #	Sample Description or ID	Collection Information		GRAB	COMP	EPA 8260	EPA 8270	CL, NH3	ALK, SO4, ACIDITY	TOC	TSS	As, Ba, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sn, Zn	OIL & GREASE	CYANIDE	HG	TOTAL # OF CONTAINERS
			Date	Time													
4048		SW-8 503887	6-17-99	12:45	RH Connors	3	1	1	1	1	1	1	1	1	1	1	12
4049		SW-9 503885	6-17-99	11:35	LD Connors	3	1	1	1	1	1	1	1	1	1	1	12
4050		SW-10 503903	6-17-99	13:35	LD Connors	3	1	1	1	1	1	1	1	1	1	1	12
4051		TRIP BLANK				3											3
4052		FIELD BLANK 503911	6-17-99	15:15	DFH Seno	3	1	1	1	1	1	1	1	1	1	1	11
4057		MW-18 QC SAMPLE	6-15-99	14:00	K.A. Cobley	1											1
5516		MW-3D 503929	6-15-99	14:45	John Klassen												
		MW 2-2 R5 Sample	6-17-99	09:55	LD Connors	1											1

Turnaround Requested

Routine (2 weeks)

Rush (1 week)

Emergency Rush (24-48 Hrs.)\*

Date Results Requested: \_\_\_\_\_

\* Additional Charges Will Apply

Relinquished by: John Cobley Date/Time 6/18/99 Accepted By: John Cobley Date/Time 6/18/99 0740

Relinquished by: David R. Dyer Date/Time 6/17/99 150 Accepted By: David R. Dyer Date/Time 6/17/99 0740

Sealed/Locked by: \_\_\_\_\_ Date/Time \_\_\_\_\_ Seal/Lock Opened By: \_\_\_\_\_ Date/Time \_\_\_\_\_

Comments: \_\_\_\_\_

TEMP: \_\_\_\_\_

Sample Matrix  NC  SC  NPDES  Ground Water  USTO  Drinking Water  RCRA Waste  Other

# Pace Analytical

Pace Analytical Services, Inc.  
9800 Kinsey Avenue, Suite 100  
Huntersville, NC 28078

Tel: 704-875-9092  
Fax: 704-875-9091

July 02, 1999

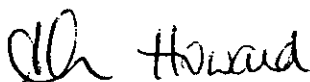
Mr. Troy Whisenant  
Duke Power  
13339 Hagers Ferry Road  
Huntersville, NC 28078

RE: Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Dear Mr. Whisenant:

Enclosed are the results of analyses for sample(s) received by the laboratory on June 18, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



for Ron Kerr  
Project Manager

Enclosures

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213



# Pace Analytical

Pace Analytical Services, Inc.  
9800 Kinsey Avenue, Suite 100  
Huntersville, NC 28078

Tel: 704-875-9092  
Fax: 704-875-9091

DATE: 07/02/99  
PAGE: 1

Duke Power  
13339 Hagers Ferry Road  
Huntersville, NC 28078

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Attn: Mr. Troy Whisenant  
Phone: (704)875-5204

Solid results are reported on a wet weight basis

Pace Sample No: 92503226 Date Collected: 06/16/99 Matrix: Water  
Client Sample ID: MW-1 / 4009 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water	Method: EPA 335.3	Prep Method: EPA 335.3
Cyanide	0.016 mg/l 0.002	06/25/99 TTB 57-12-5

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

DATE: 07/02/99  
PAGE: 2

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

---

Pace Sample No: 92503234                      Date Collected: 06/16/99                      Matrix: Water  
Client Sample ID: MW-2 / 4010                      Date Received: 06/18/99

---

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

---

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3				Prep Method: EPA 335.3	
Cyanide	0.012	mg/l	0.002	06/25/99	TTB	57-12-5	

## REPORT OF LABORATORY ANALYSIS

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503242      Date Collected: 06/15/99      Matrix: Water  
Client Sample ID: MW-3 / 4011      Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.012	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

# Pace Analytical

Pace Analytical Services, Inc.  
9800 Kinsey Avenue, Suite 100  
Huntersville, NC 28078

Tel: 704-875-9092  
Fax: 704-875-9091

DATE: 07/02/99

PAGE: 4

Pace Project Number: 926937

Client Project ID: 99-JUN-0042

---

Pace Sample No: 92503325 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: MW-4 / 4012 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

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## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/25/99	TTB	57-12-5	

### Laboratory Certification IDs

NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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### Laboratory Certification IDs

KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

# Pace Analytical

Pace Analytical Services, Inc.  
9800 Kinsey Avenue, Suite 100  
Huntersville, NC 28078

Tel: 704-875-9092  
Fax: 704-875-9091

DATE: 07/02/99  
PAGE: 5

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503341 Date Collected: 06/14/99 Matrix: Water  
Client Sample ID: MW-5 / 4013 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

# Pace Analytical

Pace Analytical Services, Inc.  
9800 Kinsey Avenue, Suite 100  
Huntersville, NC 28078

Tel: 704-875-9092  
Fax: 704-875-9091

DATE: 07/02/99  
PAGE: 6

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

---

Pace Sample No: 92503408      Date Collected: 06/15/99      Matrix: Water  
Client Sample ID: MW-7 / 4014      Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

---

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3				Prep Method: EPA 335.3	
Cyanide	0.012	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

---

Pace Sample No: 92503440 Date Collected: 06/16/99 Matrix: Water  
Client Sample ID: MW-6 / 4015 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Pace Project Number: 926937

Client Project ID: 99-JUN-0042

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Pace Sample No:	92503481	Date Collected:	06/15/99	Matrix:	Water
Client Sample ID:	MW-8 / 4016	Date Received:	06/18/99		

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.22	mg/l	0.01	06/22/99	AST	57-12-5	

Laboratory Certification IDs

NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503515 Date Collected: 06/15/99 Matrix: Water  
Client Sample ID: MW-9/ 4017 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.0051	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503549 Date Collected: 06/15/99 Matrix: Water  
Client Sample ID: MW-10 / 4018 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

### Laboratory Certification IDs

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503556 Date Collected: 06/15/99 Matrix: Water  
Client Sample ID: MW-11 / 4019 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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## Wet Chemistry

Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	0.0031	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

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Pace Sample No:	92503564	Date Collected:	06/15/99	Matrix:	Water
Client Sample ID:	MW-12 / 4020	Date Received:	06/18/99		

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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### Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.0088	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

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Pace Sample No: 92503580      Date Collected: 06/15/99      Matrix: Water  
Client Sample ID: MW-13 / 4021      Date Received: 06/18/99

---

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

---

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503606 Date Collected: 06/15/99 Matrix: Water  
Client Sample ID: MW-14 / 4022 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

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Pace Sample No: 92503614      Date Collected: 06/15/99      Matrix: Water  
Client Sample ID: MW-15 / 4023      Date Received: 06/18/99

---

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

---

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.0052	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

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Pace Sample No: 92503630 Date Collected: 06/16/99 Matrix: Water  
Client Sample ID: MW-16 / 4024 Date Received: 06/18/99

---

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
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## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.071	mg/l	0.004	06/25/99	TTB	57-12-5	

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

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Pace Sample No: 92503655      Date Collected: 06/15/99      Matrix: Water  
Client Sample ID: MW-17 / 4025      Date Received: 06/18/99

---

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

---

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.044	mg/l	0.002	06/22/99	AST	57-12-5	

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503671 Date Collected: 06/16/99 Matrix: Water  
Client Sample ID: MW-18 / 4026 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.0057	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503713 Date Collected: 06/16/99 Matrix: Water  
Client Sample ID: MW-19 / 4027 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.017	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
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NC Drinking Water 37706  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

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Pace Sample No: 92503721                      Date Collected: 06/15/99                      Matrix: Water  
Client Sample ID: MW-20 / 4028                      Date Received: 06/18/99

---

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

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Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3		Prep Method: EPA 335.3			
Cyanide	0.0031	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503739 Date Collected: 06/16/99 Matrix: Water  
Client Sample ID: MW-21 / 4035 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	0.0094	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503747 Date Collected: 06/14/99 Matrix: Water  
Client Sample ID: MW-22 / 4036 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3		Prep Method: EPA 335.3			
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503754 Date Collected: 06/14/99 Matrix: Water  
Client Sample ID: MW-24 / 4037 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503762 Date Collected: 06/14/99 Matrix: Water  
Client Sample ID: MW-23 / 4038 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

### Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503770 Date Collected: 06/15/99 Matrix: Water  
Client Sample ID: MW-25 / 4039 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503788 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-1 / 4040 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3		Prep Method: EPA 335.3			
Cyanide	ND	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503838 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-2 / 4041 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
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NC Drinking Water 37706  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503846 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-3 / 4042 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	ND	mg/l	0.002	06/25/99	TTB	57-12-5	

Laboratory Certification IDs  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503853 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-4 / 4043 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3		Prep Method: EPA 335.3
Cyanide	ND	mg/l	0.002	06/25/99 TTB 57-12-5

Laboratory Certification IDs  
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NC Drinking Water 37706  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503861 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-5 / 4046 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

### Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.011	mg/l	0.002	06/30/99	DJD	57-12-5	

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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503879 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-7 / 4047 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.0038	mg/l	0.002	06/30/99	DJD	57-12-5	

Laboratory Certification IDs  
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NC Drinking Water 37706  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503887 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-8 / 4048 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

### Wet Chemistry

Cyanide, Total, Water	Method: EPA 335.3				Prep Method: EPA 335.3		
Cyanide	0.0043	mg/l	0.002	06/30/99	DJD	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213



# Pace Analytical

Pace Analytical Services, Inc.  
9800 Kincey Avenue, Suite 100  
Huntersville, NC 28078

Tel: 704-875-9092  
Fax: 704-875-9091

DATE: 07/02/99  
PAGE: 33

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503895 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: SW-9 / 4049 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

### Wet Chemistry

Cyanide, Total, Water							
Cyanide	0.0033	mg/l	0.002	06/30/99	DJD	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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KY Drinking Water 90090  
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VA Drinking Water 213

DATE: 07/02/99

PAGE: 34

Pace Project Number: 926937

Client Project ID: 99-JUN-0042

---

Pace Sample No: 92503903      Date Collected: 06/17/99      Matrix: Water  
Client Sample ID: SW-10 / 4050      Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

---

Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.0033	mg/l	0.002	06/30/99	DJD	57-12-5	

Laboratory Certification IDs

NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Laboratory Certification IDs

KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

DATE: 07/02/99  
PAGE: 35

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

---

Pace Sample No: 92503911 Date Collected: 06/17/99 Matrix: Water  
Client Sample ID: FIELD BLANK/4052 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

---

### Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3		Prep Method: EPA 335.3			
Cyanide	ND	mg/l	0.002	06/30/99	DJD	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

# Pace Analytical

Pace Analytical Services, Inc.  
9800 Kinsey Avenue, Suite 100  
Huntersville, NC 28078

Tel: 704-875-9092  
Fax: 704-875-9091

DATE: 07/02/99  
PAGE: 36

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Pace Sample No: 92503929 Date Collected: 06/15/99 Matrix: Water  
Client Sample ID: MW-3D / 4057 Date Received: 06/18/99

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

## Wet Chemistry

Cyanide, Total, Water		Method: EPA 335.3			Prep Method: EPA 335.3		
Cyanide	0.0021	mg/l	0.002	06/22/99	AST	57-12-5	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

DATE: 07/02/99  
PAGE: 37

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

---

PARAMETER FOOTNOTES

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 07/02/99  
 PAGE: 38

Duke Power  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078

Pace Project Number: 926937  
 Client Project ID: 99-JUN-0042

Attn: Mr. Troy Whisenant  
 Phone: (704)875-5204

QC Batch ID: 14100                      QC Batch Method: EPA 335.3  
 Analysis Method: EPA 335.3              Analysis Description: Cyanide, Total, Water  
 Associated Pace Samples:              92503341    92503747    92503754    92503762

METHOD BLANK: 92504554  
 Associated Pace Samples:

	92503341	92503747	92503754	92503762
		Method Blank		
Parameter	Units	Result	PRL	Footnotes
Cyanide	mg/l	ND	0.002	

MATRIX SPIKE: 92504588

			Spike Conc.	Matrix Spike Result	Matrix Spike % Rec	Footnotes
Parameter	Units	92499540				
Cyanide	mg/l	0.00001300	0.0200	0.01146	57.2	1

LABORATORY CONTROL SAMPLE: 92504562

		Spike Conc.	LCS Result	Spike % Rec	Footnotes
Parameter	Units				
Cyanide	mg/l	0.0200	0.01871	93.5	

SAMPLE DUPLICATE: 92504570

			Dup. Result	RPD	Footnotes
Parameter	Units	92499490			
Cyanide	mg/l	ND	ND	NC	

Laboratory Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006

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Laboratory Certification IDs  
 KY Drinking Water 90090  
 TN UST List  
 VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 07/02/99  
PAGE: 39

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

SAMPLE DUPLICATE: 92504596

Parameter	Units	92499847	Dup. Result	RPD	Footnotes
Cyanide	mg/l	ND	ND	NC	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 07/02/99  
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Duke Power  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078

Pace Project Number: 926937  
 Client Project ID: 99-JUN-0042

Attn: Mr. Troy Whisenant  
 Phone: (704)875-5204

QC Batch ID: 14115                      QC Batch Method: EPA 335.3  
 Analysis Method: EPA 335.3            Analysis Description: Cyanide, Total, Water  
 Associated Pace Samples:              92503408    92503481    92503515    92503549    92503556  
    92503564    92503580    92503606    92503614    92503655  
    92503721    92503770    92503929

METHOD BLANK: 92505171  
 Associated Pace Samples:

Parameter	Units	92503408	92503481	92503515	92503549	92503556	92503564	92503580
		92503606	92503614	92503655	92503721	92503770	92503929	
			Method Blank Result	PRL	Footnotes			

Cyanide                      mg/l                      ND                      0.002

MATRIX SPIKE: 92505189

Parameter	Units	92504802	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.0009880	0.0200	0.0006290	-1.80	1

LABORATORY CONTROL SAMPLE: 92505197

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.0200	0.01601	80.0	

SAMPLE DUPLICATE: 92505205

Parameter	Units	92503408	Dup. Result	RPD	Footnotes
Cyanide	mg/l	0.01200	0.01200	6	

Laboratory Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006

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Laboratory Certification IDs  
 KY Drinking Water 90090  
 TN UST List  
 VA Drinking Water 213



QUALITY CONTROL DATA

DATE: 07/02/99  
PAGE: 41

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

SAMPLE DUPLICATE: 92505213

Parameter	Units	92503929	Dup. Result	RPD	Footnotes
-----	-----	-----	-----	-----	-----
Cyanide	mg/l	0.002100	0.002800	29	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

## QUALITY CONTROL DATA

DATE: 07/02/99  
PAGE: 42

Duke Power  
13339 Hagers Ferry Road  
Huntersville, NC 28078

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Attn: Mr. Troy Whisenant  
Phone: (704)875-5204

QC Batch ID: 14262                      QC Batch Method: EPA 335.3  
Analysis Method: EPA 335.3            Analysis Description: Cyanide, Total, Water  
Associated Pace Samples:              92503226    92503234    92503242    92503440    92503630  
    92503671    92503713    92503739

METHOD BLANK: 92511559  
Associated Pace Samples:

Parameter	Units	92503226 92503739	92503234	92503242	92503440	92503630	92503671	92503713
Cyanide	mg/l							

MATRIX SPIKE: 92511567

Parameter	Units	92510395	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.002481	0.0200	0.01480	61.6	1

LABORATORY CONTROL SAMPLE: 92511575

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.0200	0.01986	99.3	

SAMPLE DUPLICATE: 92511583

Parameter	Units	92502137	Dup. Result	RPD	Footnotes
Cyanide	mg/l	0.005700	0.005600	2	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 07/02/99  
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Duke Power  
 13339 Hagers Ferry Road  
 Huntersville, NC 28078

Pace Project Number: 926937  
 Client Project ID: 99-JUN-0042

Attn: Mr. Troy Whisenant  
 Phone: (704)875-5204

QC Batch ID: 14276                      QC Batch Method: EPA 335.3  
 Analysis Method: EPA 335.3            Analysis Description: Cyanide, Total, Water  
 Associated Pace Samples:            92503325    92503788    92503838    92503846    92503853

METHOD BLANK: 92512078  
 Associated Pace Samples:

Parameter	Units	92503325	92503788 Method Blank Result	92503838 PRL	92503846	92503853 Footnotes
Cyanide	mg/l		ND	0.002		

MATRIX SPIKE: 92512086

Parameter	Units	92501865	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.002960	0.0200	0.02192	94.8	

LABORATORY CONTROL SAMPLE: 92512094

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Cyanide	mg/l	0.0200	0.01974	98.7	

SAMPLE DUPLICATE: 92512102

Parameter	Units	92503275	Dup. Result	RPD	Footnotes
Cyanide	mg/l	ND	ND	NC	

Laboratory Certification IDs  
 NC Wastewater 12  
 NC Drinking Water 37706  
 SC 99006

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Laboratory Certification IDs  
 KY Drinking Water 90090  
 TN UST List  
 VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 07/02/99  
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Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

SAMPLE DUPLICATE: 92512110

Parameter	Units	92503788	Dup. Result	RPD	Footnotes
-----	-----	-----	-----	-----	-----
Cyanide	mg/l	ND	ND	NC	

Laboratory Certification IDs  
NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs  
KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

### QUALITY CONTROL DATA

DATE: 07/02/99

PAGE: 45

Duke Power  
13339 Hagers Ferry Road  
Huntersville, NC 28078

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

Attn: Mr. Troy Whisenant  
Phone: (704)875-5204

QC Batch ID: 14481

QC Batch Method: EPA 335.3

Analysis Method: EPA 335.3

Analysis Description: Cyanide, Total, Water

Associated Pace Samples: 92503861 92503879 92503887 92503895 92503903  
92503911

#### METHOD BLANK: 92518364

Associated Pace Samples:

Parameter	Units	92503861	92503879	92503887	92503895	92503903	92503911
			Method Blank Result	PRL			
Cyanide	mg/l		ND	0.002			

#### MATRIX SPIKE: 92518372

Parameter	Units	92503861	Matrix			Footnotes
			Spike Conc.	Spike Result	Spike % Rec	
Cyanide	mg/l	0.01074	0.0200	0.02867	89.6	

#### LABORATORY CONTROL SAMPLE: 92518398

Parameter	Units	Spike	LCS	Spike	Footnotes
		Conc.	Result	% Rec	
Cyanide	mg/l	0.0200	0.01827	91.3	

#### LABORATORY CONTROL SAMPLE: 92518414

Parameter	Units	Spike	LCS	Spike	Footnotes
		Conc.	Result	% Rec	
Cyanide	mg/l	0.0200	0.01859	93.0	

#### Laboratory Certification IDs

NC Wastewater 12  
NC Drinking Water 37706  
SC 99006

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#### Laboratory Certification IDs

KY Drinking Water 90090  
TN UST List  
VA Drinking Water 213

QUALITY CONTROL DATA

DATE: 07/02/99  
PAGE: 46

Pace Project Number: 926937  
Client Project ID: 99-JUN-0042

SAMPLE DUPLICATE: 92518380

Parameter	Units	92503861	Dup. Result	RPD	Footnotes
Cyanide	mg/l	0.01100	0.01100	2	

SAMPLE DUPLICATE: 92518406

Parameter	Units	92515741	Dup. Result	RPD	Footnotes
Cyanide	mg/l	0.002400	ND	NC	

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## QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- ND Not Detected
- NC Not Calculable
- PRL Pace Reporting Limit
- RPD Relative Percent Difference
- [1] The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Form 89962 (9-97)  
Previously Form 35226

**Duke Power's Analytical Laboratory**  
MNS Bldg. # 7405 (MG03A2)  
13339 Hagers Ferry Road  
Huntersville, NC 28078  
Phone: (704) 875-5209/875-5245  
Fax: (704) 875-5038

LAB USE <sup>8</sup>			
TIMS # <u>00-FEB-0188</u>		Sample Class <u>M6P</u>	
Logged By (Ini.) <u>JRa</u>	Time <u>0758</u>	Date <u>02/11/00</u>	
Vendored Samples			
Vendor		Analysis	
Vendor		P.O. #	

Container Type:  Glass  Plastic<sup>13</sup>

Preservative Added <sup>14</sup>											
HNO <sub>3</sub>											
H <sub>2</sub> SO <sub>4</sub>											
Ice	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
Other	<input checked="" type="checkbox"/>										
None											
Analysis Required <sup>15</sup>											

CLIENT: TIM HUNTSICKER Report to/Ph.: TIM HUNTSICKER  
 Project Name: BRANLETTE MGP Mail Code: MG03A3  
 Business Unit: \_\_\_\_\_ Resp. Center To: CS99  
 FMIS # \_\_\_\_\_ Project ID: MGPBRAM  
 Activity ID: \_\_\_\_\_  
 Process: \_\_\_\_\_

Sample # <sup>9</sup>	Lab PROFS # <sup>10</sup>	Sample Description or ID <sup>11</sup>	Collection Information <sup>12</sup>			GRAB <sup>16</sup>	COMP <sup>17</sup>	8260 (WATER)	8260 (SOIL)	8270 (SOIL)	TOTAL # OF CONTAINERS <sup>18</sup>
			Date	Time	Signature						
<u>2000 3973</u>		<u>HA # 1 3'-4' DEEP (SOIL)</u>	<u>2/10/00</u>	<u>0945</u>	<u>Tim Huntsicker</u>	<input checked="" type="checkbox"/>					<u>2</u>
<u>2000 3974</u>		<u>MW-3D-DRUM (WATER)</u>	<u>2/10/00</u>	<u>1030</u>	<u>Tim Huntsicker</u>	<input checked="" type="checkbox"/>	<u>3</u>				<u>3</u>

Relinquished by: <u>Tim Huntsicker</u>	Date/Time: <u>2/10/00 @ 0650</u>	Accepted By: <u>J. J. Harrison</u>	Date/Time: <u>02/11/00 3700</u>
Relinquished by: _____	Date/Time: _____	Accepted By: _____	Date/Time: _____
Seal/Locked by: <u>J. J. Harrison</u>	Date/Time: _____	Seal/Lock Opened By: _____	Date/Time: _____

Turnaround Requested<sup>21</sup>

Routine (2 weeks)

Rush (1 week)

Emergency Rush (24-48 Hrs.)\*

Date Results Requested: \_\_\_\_\_

\*Additional Charges Will Apply

Sample Matrix <sup>22</sup> <input checked="" type="checkbox"/> NC <input type="checkbox"/> SC	TEMP: <sup>23</sup> <u>3.3°C</u>	Comments: <sup>24</sup>
Ground Water <input type="checkbox"/> NPDES <input type="checkbox"/>		
Drinking Water <input type="checkbox"/> UST <input type="checkbox"/>		
RCRA Waste <input type="checkbox"/> Other <input checked="" type="checkbox"/>		





# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003973

Job #: 00-FEB-0188

Customer ID: TIM HUNSUCKER

Sample Description: BRAMLETT HA #1-SOIL

Collection Date: 2/10/00

Site: BRAMLETT ST

Type of Sample: SOIL

## SVOC IN SOIL BY GC/MS - 8270

Test Code: MS8270\_S

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Pyridine	< 130 mg/Kg	130 mg/Kg	1
n-Nitrosodimethylamine	< 130 mg/Kg	130 mg/Kg	1
Aniline	< 130 mg/Kg	130 mg/Kg	1
Phenol	< 130 mg/Kg	130 mg/Kg	1
bis(2-Chloroethyl)ether	< 130 mg/Kg	130 mg/Kg	1
2-Chlorophenol	< 130 mg/Kg	130 mg/Kg	1
1,3-Dichlorobenzene	< 130 mg/Kg	130 mg/Kg	1
1,4-Dichlorobenzene	< 130 mg/Kg	130 mg/Kg	1
Benzyl alcohol	< 130 mg/Kg	130 mg/Kg	1
1,2-Dichlorobenzene	< 130 mg/Kg	130 mg/Kg	1
2-Methylphenol	< 130 mg/Kg	130 mg/Kg	1
bis(2-Chloroisopropyl)ether	< 130 mg/Kg	130 mg/Kg	1
4-Methylphenol	< 130 mg/Kg	130 mg/Kg	1
Hexachloroethane	< 130 mg/Kg	130 mg/Kg	1
n-Nitrosodi-n-propylamine	< 130 mg/Kg	130 mg/Kg	1
Nitrobenzene	< 130 mg/Kg	130 mg/Kg	1
Isophorone	< 130 mg/Kg	130 mg/Kg	1
2-Nitrophenol	< 130 mg/Kg	130 mg/Kg	1
2,4-Dimethylphenol	< 130 mg/Kg	130 mg/Kg	1
bis(2-Chloroethoxy)methane	< 130 mg/Kg	130 mg/Kg	1
2,4-Dichlorophenol	< 130 mg/Kg	130 mg/Kg	1
Benzoic acid	< 130 mg/Kg	130 mg/Kg	1
1,2,4-Trichlorobenzene	< 130 mg/Kg	130 mg/Kg	1
Naphthalene	660 mg/Kg	130 mg/Kg	1
4-Chloroaniline	< 130 mg/Kg	130 mg/Kg	1
Hexachlorobutadiene	< 130 mg/Kg	130 mg/Kg	1
4-Chloro-3-methylphenol	< 130 mg/Kg	130 mg/Kg	1
2-Methylnaphthalene	240 mg/Kg	130 mg/Kg	1
Hexachlorocyclopentadiene	< 130 mg/Kg	130 mg/Kg	1
2,4,6-Trichlorophenol	< 130 mg/Kg	130 mg/Kg	1
2,4,5-Trichlorophenol	< 130 mg/Kg	130 mg/Kg	1
2-Chloronaphthalene	< 130 mg/Kg	130 mg/Kg	1
2-Nitroaniline	< 130 mg/Kg	130 mg/Kg	1
Dimethylphthalate	< 130 mg/Kg	130 mg/Kg	1
Acenaphthylene	140 mg/Kg	130 mg/Kg	1
2,6-Dinitrotoluene	< 130 mg/Kg	130 mg/Kg	1
3-Nitroaniline	< 130 mg/Kg	130 mg/Kg	1
Acenaphthene	< 130 mg/Kg	130 mg/Kg	1
2,4-Dinitrophenol	< 130 mg/Kg	130 mg/Kg	1
4-Nitrophenol	< 130 mg/Kg	130 mg/Kg	1



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003973

Job #: 00-FEB-0188

Customer ID: TIM HUNSUCKER

Sample Description: BRAMLETT HA #1-SOIL

Collection Date: 2/10/00

Site: BRAMLETT ST

Type of Sample: SOIL

## SVOC IN SOIL BY GC/MS - 8270

Test Code: MS8270\_S

Test Method: SW-846 8270

Analyst: RGW7794

	Result	Reporting Limit	Flag
Dibenzofuran	130 mg/Kg	130 mg/Kg	1
2,4-Dinitrotoluene	< 130 mg/Kg	130 mg/Kg	1
Diethylphthalate	< 130 mg/Kg	130 mg/Kg	1
Fluorene	190 mg/Kg	130 mg/Kg	1
4-Chlorophenylphenylether	< 130 mg/Kg	130 mg/Kg	1
4-Nitroaniline	< 130 mg/Kg	130 mg/Kg	1
2-Methyl-4,6-dinitrophenol	< 130 mg/Kg	130 mg/Kg	1
n-Nitrosodiphenylamine	< 130 mg/Kg	130 mg/Kg	1
1,2-Diphenylhydrazine	< 130 mg/Kg	130 mg/Kg	1
4-Bromophenylphenylether	< 130 mg/Kg	130 mg/Kg	1
Hexachlorobenzene	< 130 mg/Kg	130 mg/Kg	1
Pentachlorophenol	< 130 mg/Kg	130 mg/Kg	1
Phenanthrene	600 mg/Kg	130 mg/Kg	1
Anthracene	190 mg/Kg	130 mg/Kg	1
di-n-Butylphthalate	< 130 mg/Kg	130 mg/Kg	1
Fluoranthene	340 mg/Kg	130 mg/Kg	1
Benzidine	< 630 mg/Kg	630 mg/Kg	1
Pyrene	340 mg/Kg	130 mg/Kg	1
Butylbenzylphthalate	< 130 mg/Kg	130 mg/Kg	1
3,3-Dichlorobenzidine	< 130 mg/Kg	130 mg/Kg	1
Benzo(a)anthracene	140 mg/Kg	130 mg/Kg	1
Chrysene	140 mg/Kg	130 mg/Kg	1
bis(2-Ethylhexyl)phthalate	< 130 mg/Kg	130 mg/Kg	1
di-n-Octylphthalate	< 130 mg/Kg	130 mg/Kg	1
Benzo(b)fluoranthene	< 130 mg/Kg	130 mg/Kg	1
Benzo(k)fluoranthene	200 mg/Kg	130 mg/Kg	1
Benzo(a)pyrene	130 mg/Kg	130 mg/Kg	1
Indeno(1,2,3-c,d)pyrene	75 mg/Kg	38 mg/Kg	1
Dibenzo(a,h)anthracene	< 130 mg/Kg	130 mg/Kg	1
Benzo(g,h,i)perylene	41 mg/Kg	38 mg/Kg	1

## VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260\_S

Test Method: SW-846 8260A

Analyst: MAO125C

	Result	Reporting Limit	Flag
Dichlorodifluoromethane	< 550 ug/Kg	550 ug/Kg	1
Chloromethane	< 550 ug/Kg	550 ug/Kg	1
Vinyl chloride	< 550 ug/Kg	550 ug/Kg	1
Bromomethane	< 550 ug/Kg	550 ug/Kg	1
Chloroethane	< 550 ug/Kg	550 ug/Kg	1



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003973

Job #: 00-FEB-0188

Customer ID: TIM HUNSUCKER

Sample Description: BRAMLETT HA #1-SOIL

Collection Date: 2/10/00

Site: BRAMLETT ST

Type of Sample: SOIL

## VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260\_S

Test Method: SW-846 8260A

Analyst: MAO125C

	Result	Reporting Limit	Flag
Trichlorofluoromethane	< 550 ug/Kg	550 ug/Kg	1
Acrolein	< 550 ug/Kg	550 ug/Kg	1
1,1-Dichloroethene	< 550 ug/Kg	550 ug/Kg	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 550 ug/Kg	550 ug/Kg	1
Acetone	< 550 ug/Kg	550 ug/Kg	1
Methyl iodide	< 550 ug/Kg	550 ug/Kg	1
Carbon disulfide	< 550 ug/Kg	550 ug/Kg	1
Methylene chloride	< 550 ug/Kg	550 ug/Kg	1
Acrylonitrile	< 550 ug/Kg	550 ug/Kg	1
MTBE	< 550 ug/Kg	550 ug/Kg	1
trans-1,2-Dichloroethene	< 550 ug/Kg	550 ug/Kg	1
Isopropyl ether	< 550 ug/Kg	550 ug/Kg	1
1,1-Dichloroethane	< 550 ug/Kg	550 ug/Kg	1
Vinyl acetate	< 550 ug/Kg	550 ug/Kg	1
2,2-Dichloropropane	< 550 ug/Kg	550 ug/Kg	1
cis-1,2-Dichloroethene	< 550 ug/Kg	550 ug/Kg	1
2-Butanone	< 550 ug/Kg	550 ug/Kg	1
Chloroform	< 550 ug/Kg	550 ug/Kg	1
1,1-Dichloropropene	< 550 ug/Kg	550 ug/Kg	1
1,1,1-Trichloroethane	< 550 ug/Kg	550 ug/Kg	1
Carbon tetrachloride	< 550 ug/Kg	550 ug/Kg	1
Bromochloromethane	< 550 ug/Kg	550 ug/Kg	1
Benzene	1900 ug/Kg	550 ug/Kg	1
1,2-Dichloroethane	< 550 ug/Kg	550 ug/Kg	1
Trichloroethene	< 550 ug/Kg	550 ug/Kg	1
1,2-Dichloropropane	< 550 ug/Kg	550 ug/Kg	1
Dibromomethane	< 550 ug/Kg	550 ug/Kg	1
Bromodichloromethane	< 550 ug/Kg	550 ug/Kg	1
2-Chloroethyl vinyl ether	< 550 ug/Kg	550 ug/Kg	1
cis-1,3-Dichloropropene	< 550 ug/Kg	550 ug/Kg	1
4-Methyl-2-pentanone (MIBK)	< 550 ug/Kg	550 ug/Kg	1
Toluene	6300 ug/Kg	550 ug/Kg	1
trans-1,3-Dichloropropene	< 550 ug/Kg	550 ug/Kg	1
1,1,2-Trichloroethane	< 550 ug/Kg	550 ug/Kg	1
1,3-Dichloropropane	< 550 ug/Kg	550 ug/Kg	1
Tetrachloroethene	< 550 ug/Kg	550 ug/Kg	1
2-Hexanone	< 550 ug/Kg	550 ug/Kg	1
Dibromochloromethane	< 550 ug/Kg	550 ug/Kg	1
1,2-Dibromoethane (EDB)	< 550 ug/Kg	550 ug/Kg	1
Chlorobenzene	< 550 ug/Kg	550 ug/Kg	1



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003973

Job #: 00-FEB-0188

Customer ID: TIM HUNSUCKER

Sample Description: BRAMLETT HA #1-SOIL

Collection Date: 2/10/00

Site: BRAMLETT ST

Type of Sample: SOIL

## VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260\_S

Test Method: SW-846 8260A

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Isopropylbenzene	< 550 ug/Kg	550 ug/Kg	1
1,1,1,2-tetrachloroethane	< 550 ug/Kg	550 ug/Kg	1
Ethylbenzene	3000 ug/Kg	550 ug/Kg	1
m-p-Xylene	12000 ug/Kg	1100 ug/Kg	1
o-Xylene	5400 ug/Kg	550 ug/Kg	1
Styrene	2200 ug/Kg	550 ug/Kg	1
Bromoform	< 550 ug/Kg	550 ug/Kg	1
1,4-Dichlorobutane	< 550 ug/Kg	550 ug/Kg	1
1,1,1,2-Tetrachloroethane	< 550 ug/Kg	550 ug/Kg	1
1,2,3-Trichloropropane	< 550 ug/Kg	550 ug/Kg	1
n-Propyl benzene	< 550 ug/Kg	550 ug/Kg	1
Bromobenzene	< 550 ug/Kg	550 ug/Kg	1
1,3,5-trimethylbenzene	3700 ug/Kg	550 ug/Kg	1
2-Chlorotoluene	< 550 ug/Kg	550 ug/Kg	1
4-Chlorotoluene	< 550 ug/Kg	550 ug/Kg	1
t-Butylbenzene	< 550 ug/Kg	550 ug/Kg	1
1,2,4-Trimethylbenzene	11000 ug/Kg	550 ug/Kg	1
sec-Butylbenzene	< 550 ug/Kg	550 ug/Kg	1
p-isopropyltoluene	< 550 ug/Kg	550 ug/Kg	1
1,3-Dichlorobenzene	< 550 ug/Kg	550 ug/Kg	1
1,4-Dichlorobenzene	< 550 ug/Kg	550 ug/Kg	1
n-Butylbenzene	< 550 ug/Kg	550 ug/Kg	1
1,2-Dichlorobenzene	< 550 ug/Kg	550 ug/Kg	1
1,2-Dibromo-3-chloropropane	< 550 ug/Kg	550 ug/Kg	1
1,2,4-Trichlorobenzene	< 550 ug/Kg	550 ug/Kg	1
Hexachlorobutadiene	< 550 ug/Kg	550 ug/Kg	1
Naphthalene	240000 ug/Kg	550 ug/Kg	2



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005  
Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003973 Job #: 00-FEB-0188 Customer ID: TIM HUNSUCKER  
 Sample Description: BRAMLETT HA #1-SOIL  
 Collection Date: 2/10/00 Site: BRAMLETT ST Type of Sample: SOIL

## VOC IN SOIL BY GC/MS - 8260

Test Code: MS8260\_S

Test Method: SW-846 8260A

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
1,2,3-Trichlorobenzene	< 550 ug/Kg	550 ug/Kg	1

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only
- 6 - Holding Time or Analytical Time exceeded  
(See Case Narrative for additional information)

*Iroy Whisenant 2/23/00*  
Data Reported By, Date



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003974

Job #: 00-FEB-0188

Customer ID: TIM HUNSUCKER

Sample Description: **BRAMLETT MW-3D DRUM-WATER**

Collection Date: 2/10/00

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Dichlorodifluoromethane	< 3.0 ug/L	3.0 ug/L	1
Chloromethane	< 3.0 ug/L	3.0 ug/L	1
Vinyl chloride	< 3.0 ug/L	3.0 ug/L	1
Bromomethane	< 3.0 ug/L	3.0 ug/L	1
Chloroethane	< 3.0 ug/L	3.0 ug/L	1
Trichlorofluoromethane	< 3.0 ug/L	3.0 ug/L	1
Acrolein	< 3.0 ug/L	3.0 ug/L	1
1,1-Dichloroethene	< 3.0 ug/L	3.0 ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 3.0 ug/L	3.0 ug/L	1
Acetone	< 3.0 ug/L	3.0 ug/L	1
Methyl iodide	< 3.0 ug/L	3.0 ug/L	1
Carbon disulfide	< 3.0 ug/L	3.0 ug/L	1
Methylene chloride	< 3.0 ug/L	3.0 ug/L	1
Acrylonitrile	< 3.0 ug/L	3.0 ug/L	1
MTBE	< 3.0 ug/L	3.0 ug/L	1
trans-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	1
isopropyl ether	< 3.0 ug/L	3.0 ug/L	1
1,1-Dichloroethane	< 3.0 ug/L	3.0 ug/L	1
Vinyl acetate	< 3.0 ug/L	3.0 ug/L	1
2,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
cis-1,2-Dichloroethene	< 3.0 ug/L	3.0 ug/L	1
2-Butanone	< 3.0 ug/L	3.0 ug/L	1
Chloroform	< 3.0 ug/L	3.0 ug/L	1
1,1-Dichloropropene	< 3.0 ug/L	3.0 ug/L	1
1,1,1-Trichloroethane	< 3.0 ug/L	3.0 ug/L	1
Carbon tetrachloride	< 3.0 ug/L	3.0 ug/L	1
Bromochloromethane	< 3.0 ug/L	3.0 ug/L	1
Benzene	< 3.0 ug/L	3.0 ug/L	1
1,2-Dichloroethane	< 3.0 ug/L	3.0 ug/L	1
Trichloroethene	< 3.0 ug/L	3.0 ug/L	1
1,2-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1
Dibromomethane	< 3.0 ug/L	3.0 ug/L	1
Bromodichloromethane	< 3.0 ug/L	3.0 ug/L	1
2-Chloroethyl vinyl ether	< 3.0 ug/L	3.0 ug/L	1
cis-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	1
4-Methyl-2-pentanone (MIBK)	< 3.0 ug/L	3.0 ug/L	1
Toluene	< 3.0 ug/L	3.0 ug/L	1
trans-1,3-Dichloropropene	< 3.0 ug/L	3.0 ug/L	1
1,1,2-Trichloroethane	< 3.0 ug/L	3.0 ug/L	1
1,3-Dichloropropane	< 3.0 ug/L	3.0 ug/L	1



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248  
South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003974

Job #: 00-FEB-0188

Customer ID: TIM HUNSUCKER

Sample Description: **BRAMLETT MW-3D DRUM-WATER**

Collection Date: 2/10/00

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	<u>Result</u>	<u>Reporting Limit</u>	<u>Flag</u>
Tetrachloroethene	< 3.0 ug/L	3.0 ug/L	1
2-Hexanone	< 3.0 ug/L	3.0 ug/L	1
Dibromochloromethane	< 3.0 ug/L	3.0 ug/L	1
1,2-Dibromoethane (EDB)	< 3.0 ug/L	3.0 ug/L	1
Chlorobenzene	< 3.0 ug/L	3.0 ug/L	1
Isopropylbenzene	< 3.0 ug/L	3.0 ug/L	1
1,1,1,2-tetrachloroethane	< 3.0 ug/L	3.0 ug/L	1
Ethylbenzene	2.7 ug/L	3.0 ug/L	2
m-p-Xylene	11 ug/L	6.0 ug/L	1
o-Xylene	7.5 ug/L	3.0 ug/L	1
Styrene	< 3.0 ug/L	3.0 ug/L	1
Bromoform	< 3.0 ug/L	3.0 ug/L	1
1,4-Dichlorobutane	< 3.0 ug/L	3.0 ug/L	1
1,1,1,2-Tetrachloroethane	< 3.0 ug/L	3.0 ug/L	1
1,2,3-Trichloropropane	< 3.0 ug/L	3.0 ug/L	1
n-Propyl benzene	< 3.0 ug/L	3.0 ug/L	1
Bromobenzene	< 3.0 ug/L	3.0 ug/L	1
1,3,5-trimethylbenzene	5.1 ug/L	3.0 ug/L	1
2-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	1
4-Chlorotoluene	< 3.0 ug/L	3.0 ug/L	1
t-Butylbenzene	< 3.0 ug/L	3.0 ug/L	1
1,2,4-Trimethylbenzene	11 ug/L	3.0 ug/L	1
sec-Butylbenzene	< 3.0 ug/L	3.0 ug/L	1
p-Isopropyltoluene	< 3.0 ug/L	3.0 ug/L	1
1,3-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	1
1,4-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	1
n-Butylbenzene	< 3.0 ug/L	3.0 ug/L	1
1,2-Dichlorobenzene	< 3.0 ug/L	3.0 ug/L	1
1,2-Dibromo-3-chloropropane	< 3.0 ug/L	3.0 ug/L	1
1,2,4-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	1
Hexachlorobutadiene	< 3.0 ug/L	3.0 ug/L	1
Naphthalene	180 ug/L	3.0 ug/L	1



# Duke Power's Analytical Laboratory

Group Environment, Health and Safety

North Carolina Department of Environment and Natural Resources (DENR) Certification # 248

South Carolina Department of Health and Environmental Control (DHEC) Laboratory Identification # 99005

Phone: 704-875-5209 Fax: 704-875-5038

Sample ID #: 20003974

Job #: 00-FEB-0188

Customer ID: TIM HUNSUCKER

Sample Description: BRAMLETT MW-3D DRUM-WATER

Collection Date: 2/10/00

Site: BRAMLETT ST

Type of Sample: GROUNDWATER

## VOC IN WATER BY GC/MS - 8260

Test Code: MS8260\_W

Test Method: SW-846 8260

Analyst: MAO125C

	Result	Reporting Limit	Flag
1,2,3-Trichlorobenzene	< 3.0 ug/L	3.0 ug/L	1

### Description of Flags:

- 0 - No Discrepancies Noted
- 1 - See Case Narrative
- 2 - Estimated Concentration
- 3 - Detected in Blank
- 4 - Estimated Concentration also Detected in Blank
- 5 - For Information Only
- 6 - Holding Time or Analytical Time exceeded (See Case Narrative for additional information)

*Troy Whisenand* 2/23/00  
Data Reported By, Date



# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/kg)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
ethenyl toluene		3300	96	21.36	x			
benzofuran		3900	87	21.72	x			
trimethyl benzene		3000	97	22.12	x			
Indane		3100	94	22.52	x			
Indene		34000	96	22.99	x			
methyl benzofuran		2500	90	24.36	x			
methyl benzofuran		8700	87	24.6	x			
unknown		2900		25.54				
methyl Indene		11000	93	25.67	x			
methyl Indene		9900	91	25.91	x			
benzothiopene		4600	93	27.13	x			
methyl naphthalene		48000	93	29.26	x			
methyl naphthalene		26000	93	29.55	x			
biphenyl		4700	94	30.49	x			
dimethyl naphthalene		8400	96	31.03	x			
dimethyl naphthalene		9100	98	31.3	x			
dimethyl naphthalene		5000	96	31.37	x			
dimethyl naphthalene		3900	96	31.75	x			
acenaphthylene		3100	74	32.22	x			

### Internal Standard

	RT
Pentafluorobenzene	9.05
D4-1,4-Difluorobenzene	10.59
Chlorobenzene D-5	16.79
D-4 1,4-Dichlorobenzene	21.91

### Surrogates

	% Recovery
Dibromofluoromethane	99%
Toluene D-8	112%
1,4-Bromofluorobenze	102%

### USEPA - 8260 G.C. Conditions

25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min

# Tentatively Identified Compound Report

Compound	Probable Molecular Weight	Estimated Concentration (ug/L)	Library Match Probability (%)	Retention Rime (RT) (Minutes)	Identification			Scan Number
					Library Match	Manual Interpretation	RT	
Indane		19	93	22.52	x			
Indene		5.7	76	22.99	x			
benzothiopene		5.7	91	27.13	x			
methyl naphthalene		49	93	29.26	x			
methyl naphthalene		49	93	29.55	x			
dimethyl naphthalene		18	98	30.82	x			
dimethyl naphthalene		23	98	31.03	x			
dimethyl naphthalene		10	74	31.37	x			

### Internal Standard

	RT
Pentafluorobenzene	9.05
D4-1,4-Difluorobenzene	10.59
Chlorobenzene D-5	16.79
D-4 1,4-Dichlorobenzene	21.91

### Surrogates

	% Recovery
Dibromofluoromethane	100%
Toluene D-8	110%
1,4-Bromofluorobenze	97%

### USEPA - 8260 G.C. Conditions

25 m x 0.2 mm x 1.12um / HP-624  
 He, 0.4 ml/min, 35 C hold 6 mins, 35 C to 180 C @  
 6.5 C/min, 180 to 210 C @ 2.5 C/min, hold 3 min



*A Duke Energy Company*

*(This document must accompany release of analytical results)*

**8260**

# Case Narrative

**L.M.S.  
Work Order #**

**00-FEB-0188**

- > Sample Set 99-FEB-0188 was analyzed by EPA 8260 with 5030 purge method.
- > QC for this set was 00-FEB-0263.
- > The results for acetone for all samples should be considered estimates.
- > A TIC report was generated for all samples.
- > The results for some compounds were outside the calibration range and are flagged as estimates.

*Analyst:*

*Mary Ann Ogle*

February 21, 2000  
02:00 PM



# Semi-Volatile Organics Case Narrative

*(This document must accompany release of analytical results)*

**LIMS  
JOB #**

**00-FEB-0188**

- » *Reference QC Job#: 00-FEB-0209*
  
- » *The matrix spike and matrix spike duplicate was not analyzed due to matrix interference. All analytes were within acceptable laboratory qc requirements for the lab control sample. Sample results should be considered as estimates.*
  
- » *The following compounds cannot be accurately quantitated using EPA Method 8270; Aniline, Benzoic Acid, and Benzidine. In addition Hexachlorocyclopentadiene is a difficult compound to consistently extract from water samples. Any concentrations reported for these compounds should be regarded as approximations.*

**Analyst:**

*Rodney G. Wike*



*A Duke Energy Company*

*(This document must accompany release of analytical results)*

**8260**

# Case Narrative

**L.I.M.S.  
Work Order #**

***00-FEB-0188***

- > Sample Set 99-FEB-0188 was analyzed by EPA 8260 with 5030 purge method.
- > QC for this set was 00-FEB-0263.
- > The results for acetone for all samples should be considered estimates.
- > A TIC report was generated for all samples.
- > The results for some compounds were outside the calibration range and are flagged as estimates.

*Analyst:*

*Mary Ann Ogle*