Environmental Resources Management

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September 21, 1999
9489/MY

Mark Yohman
Lennox International, Inc.
2100 Lake Park Boulevard
Richardson, Texas 75020

Subject: Phase III Draft Assessment Report

Dear Mark:

Enclosed are two copies of the draft Phase III Assessment Report we have prepared for the Ducane Facility in Blackville, South Carolina. No other copies have been distributed.

In accordance with ERM's July 9, 1999 Proposal (Proposal No. 05079903), Phase III activities were conducted on August 25, 26, 30, 31, 1999 and September 1-3, 1999, by David Maxam and on August 25, 1999 by Jerry Prosser, P.G. of ERM. Groundwater samples were collected around the perimeter of the production facility via geoprobe on August 25-26, 1999. Seven permanent monitoring wells were installed to characterize groundwater quality and provide groundwater flow direction(s). Four of the seven monitoring wells were screened across the shallow, or water table aquifer. Three monitoring wells were completed as telescoping wells and are screened in a lower aquifer. Groundwater samples were collected from the permanent monitoring wells on September 1 and 3, 1999.

Based on the findings from the Phase III site assessment activities, it can be concluded that the groundwater in and around the production building at the Ducane facility has been impacted by certain chlorinated VOCs. While impacted, it should be noted that no VOCs were reported to be present in the groundwater samples collected from the deeper saturated zone (samples collected from a depth of 20 to 53 feet bgs). Most notably, the VOCs 1,1-Dichloroethene, cis-1,2,-Dichlorioethene, ethyl benzene, tetrachloroethene, trichloroethene and vinyl chloride each exceeded their respective MCL at MW-1; with tetrachloroethene and trichloroethylene also exceeding their MCLs at MW-2, MW-3 and MW-4. In addition to these 10 exceedances of an MCL in the samples from the monitoring wells, an additional 10 exceedances of an MCL were reported

in the samples collected at locations GW-3, GW-7 GW-12 and GW-13 using the geoprobe.

Based on the Phase III findings, ERM concludes that further investigation(s) and remediation will be required. As a requirement of SCDHEC's approval to collect the groundwater samples, the analytical data from the Phase III assessment will be required to be submitted to SCDHEC. Based on other work that ERM has performed in the state, it can be expected that SCDHEC will seek to establish a Consent Order to require the additional site investigations and/or remediation for the Ducane site. An option also available is for the site to seek a Voluntary Consent Order.

Once you have reviewed the draft, please let Ron Yarborough or me know if you have any questions.

Sincerely,

John E. Deal, Jr.

JED:cp
enclosures

DRAFT PHASE III ASSESSMENT REPORT

DRAFT

- no changes
- not "final" issued

Lennox International, Inc.

Phase III Environmental Site Assessment

The Ducane Company
Blackville, South Carolina

September, 1999

Environmental Resources Management

ERM®

ENVIRONMENTAL RESOURCES MANAGEMENT

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1.0 BACKGROUND AND INTRODUCTION

The Ducane site has been in operation since 1968 and produces gas grills, furnaces and air conditioners. The site is approximately 105 total acres, with approximately 19 acres developed. Main structures at the site include a production building, approximately 375,000 square feet in size, and a research and development building, approximately 13,000 square feet in size. Figures 1-1 and 1-2 provide the general location and layout of the site.

On June 1, 1999, Environmental Resources Management (ERM) initiated a Phase I Environmental Site Assessment (ESA) in accordance with the *ASTM Standards for Environmental Site Assessments for Commercial Real Estate, E 1527-97* for The Ducane Company in Blackville, Barnwell County, South Carolina. A limited Phase II assessment of the soil quality at the capillary fringe was also performed. The ESA focused on a description of the site's past and current activities, identification of potential on-site and off-site sources of contamination, determination of current regulatory status, and an identification of potential long-term liabilities regarding on-site contamination. An on-site and area inspection was performed, available information collected and reviewed, interviews conducted with both inside and outside parties, and soil sampling was conducted.

On June 23 and 24, 1999, 15 borings were advanced to obtain soil samples from the capillary fringe (approximately 7 to 13 feet below ground surface) to provide a general indication of groundwater quality at the subject site. Borings were advanced to provide an interpretative assessment of the site's overall general groundwater quality as well as specific areas, including the hazardous waste and solvent storage area, UST area and dumping areas on the north portion of the site. Twelve borings were advanced in the area of the buildings on the south portion of the site, SB-1 through SB-10, SB-14 and SB-15, and three borings were advanced on the north portion of the subject site, SB-11, SB-12 and SB-13. The general soil boring locations are shown in Figure 1-3.

Of those contaminants reported to be present in the soil samples (See Table 1-1), ethyl benzene, naphthalene, toluene and xylenes have risk Based Screening Levels (RBSLs) based on their potential to leach to groundwater as listed in South Carolina Department of Health and Environmental Control's (SCDHEC's) *Risk-Based Corrective Action for Petroleum Release,* June 20, 1997. Two of the soil samples reported chemicals above their SCDHEC RBSL. Sample SB-1 reported ethyl

Table 1-1: ***Detected Analytes – Limited Phase II Assessment***
The Ducane Company - Blackville, South Carolina
June 1999

	SB-1	SB-2	SB-4	SB-5	SB-7	SB-9	SB-10	SB-12	SB-15
Carbon disulfide	-	0.0151	-	0.0165	0.0161	-	0.0207	0.0212	0.0070
cis-1,2-Dichloroethene	8.430	-	-	-	-	0.1687	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	-	0.0043
Ethyl benzene	2.791	-	-	-	-	-	-	-	-
Naphthalene	-	-	-	-	-	1.241	-	-	-
Tetrachloroethene	0.2791	-	0.0048	-	-	-	-	-	-
Toluene	-	-	-	-	-	-	-	-	0.0027
Trichloroethene	4.802	-	0.0016	-	-	-	-	-	0.0030
1,2,4-Trimethylbenzene	-	-	-	-	-	0.4277	-	-	-
Xylenes	14.55	-	-	-	-	-	-	-	-

1: units in mg/kg
2: □Indicates reported amount exceeds the relevant MCL and/or RBSL.

benzene at 2.791 mg/kg (RBSL of 0.96 mg/kg) and sample SB-9 reported naphthalene at 1.241 mg/kg (RBSL of 0.08 mg/kg).

No chemical concentrations in the soil samples were reported to exceed their industrial scenario RBSL as listed in *EPA Region III's Risk-Based Concentration Table*. These RBSLs are determined by direct human exposure (contact) scenarios.

If groundwater migration is the source of reported chemical concentrations in soils, the potential exists for chemical concentrations in groundwater to exceed their RBSLs or Maximum Contaminant Levels (MCLs) at the subject site. RBSLs and MCLs for groundwater may be found in SCDHEC's *Risk-Based Corrective Action for Petroleum Releases*, June 20, 1997; South Carolina Regulation 61-58.5 – *Maximum Contaminant Levels for Volatile Synthetic Organic Chemicals* and/or EPA Region III's *Risk-Based Concentration Table*, April, 1999. RBSLs and MCLs developed by the SCDHEC and the EPA are listed in Table 1-2.

All groundwater throughout South Carolina has been classified "GB". Class GB water is required to follow the quality standards (MCLs) for organic chemicals as set forth in the *State Primary Drinking Water Regulations*, R.61-58.5.

Based on ERM's Phase I and II work, Lennox requested ERM to perform Phase III activities. The goal of these activities was to be to follow-up the findings from of the Phase I ESA and Phase II activities and provide an assessment of the groundwater quality at the site.

Three specific areas were to be "targeted" as well as an effort made to assess the overall groundwater quality upgradient and downgradient of the former and current production area. The three specific areas included: the SB-1 and SB-4 soil sampling location on the southern side of the building; the SB-9 soil sampling locations near the drum/solvent storage area and the SB-15 soil sampling location on the west side of the building.

Following SCDHEC's approval, groundwater samples were to be collected using a direct punch technique or "geoprobe" in the immediate areas of concern, for an analysis for VOCs using EPA Method 8260. ERM was to collect the groundwater samples from the upper portion of the saturated zone or approximately 10 to 15 feet below ground surface (bgs) from up to 18 different locations. Once collected, the samples were to be sent to a South Carolina certified laboratory for a VOCs analysis.

Table 1-2: ***MCLs and RBSLs for Detected Limited Phase II Assessment Analytes***
The Ducane Company
Blackville, South Carolina

	SCDHEC Soil RBSL[1,3]	SCDHEC Water MCL[2,5]	EPA Soil RBSL[1,4]	EPA Water RBSL[2,4]
Carbon disulfide	NA	NA	200,000	1
cis-1,2-Dichloroethene	NA	0.007	20,000	0.061
trans-1,2-Dichloroethene	NA	0.1	41,000	0.12
Ethyl benzene	0.96	0.7	200,000	1.3
Naphthalene	0.08	NA	NA	NA
Tetrachloroethene	NA	0.005	110	0.0011
Toluene	0.51	1	410,000	0.75
Trichloroethene	NA	0.005	520	0.0016
1,2,4-Trimethylbenzene	NA	NA	100,000	0.012
Xylenes	16.8	10	4,100,000	12

1: Units in mg/kg (ppm)
2: Units in mg/L (ppm)
3: Listed in Table B4 of SCDHEC's Risk-Based Corrective Action for Petroleum Releases, June 20, 1997.
4: Listed in EPA Region III's Risk-Based Concentration Table, April 1999.
5: Listed in R.61-58.5. A Maximum Contaminant Levels for Volatile Synthetic Organic chemicals.

In addition to the geoprobe sampling, seven permanent groundwater monitoring wells were to be installed in the shallow and/or deeper portion of the saturated zone at depths of approximately 10 to 15 and 35 to 40 feet bgs; respectively. Following their installation, the wells were to be developed, water levels measured and samples collected for an analysis of VOCs using EPA Method 8260.

In accordance with ERM's July 9, 1999 Proposal (Proposal No. 05079903), Phase III activities were conducted on August 25, 26, 30, 31, 1999 and September 1-3, 1999, by David Maxam and on August 25, 1999 by Jerry Prosser, P.G. of ERM. Groundwater samples were collected around the perimeter of the production facility via geoprobe on August 25-26, 1999. Seven permanent monitoring wells were installed to characterize groundwater quality and provide groundwater flow direction(s). Four of the seven monitoring wells were screened across the shallow, or water table aquifer. Three monitoring wells were completed as telescoping wells and are screened in a lower aquifer. Groundwater samples were collected from the permanent monitoring wells on September 1 and 3, 1999.

2.0 GEOPROBE SAMPLING/ANALYTICAL RESULTS

2.1 GEOPROBE SAMPLING

Following SCDHEC's approval (see Appendix A), eleven Geoprobe groundwater samples were collected adjacent to the production building on August 25-26, 1999 (see Figure 2-1). The sample locations were denoted as GW-1 through GW-4, GW-6 through GW-10 and GW-12 and GW-13. The screen interval depths at individual locations ranged from 8-12 feet BGS to 16-20 feet BGS. Despite several attempts, groundwater could not be collected from Geoprobe sample locations GW-5 and GW-11.

Geoprobe pilot borings were also advanced on August 25, 1999 at monitoring well locations MW-1, MW-2 and MW-3 to determine soil lithologies for proper monitoring well depth placement. The Geoprobe was advanced to 30 feet below ground surface (bgs) at MW-1, to 20 feet bgs at MW-2 and to 26 feet bgs at MW-3. Soil samples were collected using individual new 4-foot long acetate sleeves. These discreet soil samples were placed into a ziploc® bag and sealed before being screened by a pre-calibrated photoionization detector (PID) for the presence of organic vapors. The soil lithologies and PID readings are documented for each of the three borings in the soil boring logs (see Appendix B). No soil or groundwater samples were collected for laboratory analysis from the Geoprobe pilot borings.

The Geoprobe sampling tool is a hydraulically powered probing machine utilizing a percussion hammer designed to drive small diameter sampling tools. The Geoprobe groundwater sampler is hydraulically pushed to a desired depth and then pulled up approximately four feet to expose a stainless steel screen. At each sample location, a new plastic hose is used. The hose is attached to a peristaltic pump and the groundwater is evacuated and immediately pumped into clean preserved sample containers. All Geoprobe components are pre-cleaned using an alconox solution between each location to avoid possible cross-contamination.

2.2 GEOPROBE ANALYTICAL RESULTS

As discussed above, geoprobe groundwater samples were collected for laboratory analysis on August 25-26, 1999. After collection of the

groundwater samples, they were stored on ice and subsequently shipped using chain-of-custody protocols to a State of South Carolina certified laboratory (Specialized Assays, Inc. in Nashville, Tennessee) for analysis of volatile organic compounds (VOCs) by EPA Method 8260. The analytical results indicated the presence of VOCs above detectable limits in six of the eleven groundwater sample locations. Analyses from four of the six sample locations exceeded the MCLs established by SCDHEC. These locations were GW-3, GW-7, GW-12 and GW-13. The Geoprobe location with the greatest number of MCL exceedances was GW-7. This location is near the northwest corner of the production building, close to a loading dock. Geoprobe groundwater analytical data is provided in Table 2-1. A copy of the geoprobe groundwater laboratory results are provided in Appendix C.

Table 2-1: ***Detected Analytes Above MCLs[1,2,3]***
Phase III Geoprobe Groundwater Data
The Ducane Company – Blackville, South Carolina

Analytes	GW-1	GW-2	GW-3	GW-4	GW-6	GW-7	GW-8	GW-9	GW-10	GW-12	GW-13	Maximum Concentration Limits (MCLs)[3]
1,1-Dichloroethene	ND	3.1	ND	ND	ND	**32.8**	ND	ND	ND	ND	ND	7
cis-1,2-Dichloroethene	ND	5.1	6.2	ND	ND	22.3	ND	ND	ND	ND	33.7	70
trans-1,2-Dichloroethene	ND	11.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
Ethylbenzene	ND	2.9	ND	ND	ND	ND	ND	ND	9.1	ND	36.6	700
Trichloroethene	ND	4.3	**66.9**	ND	ND	**930**	ND	ND	ND	ND	**339**	5
1,2,4-Trimethylbenzene	ND	4.4	ND	ND	ND	ND	ND	ND	3.3	ND	ND	NS
Xylenes	ND	13.6	ND	ND	ND	ND	ND	ND	29.4	ND	157	10,000
Tetrachloroethene	ND	ND	**109**	ND	ND	**1,960**	ND	ND	ND	**7.3**	**707**	5
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	7.4	ND	ND	NS
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	2.8	ND	ND	NS
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	2.6	ND	ND	1,000
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	**38.6**	ND	ND	ND	ND	ND	5
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.0**	2

1-As identified from the analysis for volatile organic compounds (VOCs) using EPA Method 8260.
2-No samples were collected from sample locations GW - 5 and GW - 11, due to absence of water at the shallow depth (~15' below land surface).
3-As identified in the analysis for volatile organic compounds (VOCs) using EPA Method 8260.
4- □ indicates that the result is above the respective MCL.
5-ND= Not detected at or above laboratory limits.
6-NS= No MCL regulatory standard exist for this compound.

3.0 MONITORING WELL INSTALLATION/ANALYTICAL RESULTS

3.1 MONITORING WELL INSTALLATION

Seven permanent monitoring wells were installed to characterize groundwater quality and determine groundwater flow direction(s). On August 25-26 and August 30, 1999, outer casings were installed and grouted into place at monitoring well locations MW-1D, MW-2D and MW-3D. On August 31, 1999, water table aquifer monitoring wells MW-1 through MW-4 were installed. Monitoring well MW-1D was completed and installed on September 1, 1999. Monitoring wells MW-2D and MW-3D were installed on September 2, 1999.

The three outer casings were constructed of 6-inch inner diameter Schedule 40 PVC and were emplaced by drilling with 8-1/4 inch inner diameter hollow stem augers. The outer casings were installed in a silt confining unit. This confining unit acts as an aquitard and prevents potentially affected groundwater from migrating into the next lower aquifer. The outer casings were subsequently grouted in place at this confining unit. The depths of the outer casings for MW-1D, MW-2D and MW-3D are 30 feet bgs, 18 feet bgs and 15 feet bgs; respectively.

After the grout cement was hardened between the borehole wall and each of the outer casings, the inside of the outer casings was drilled. This was accomplished by using mud rotary drilling techniques. While drilling via mud rotary, a bentonite gel is mixed and is pumped into the borehole while drilling, keeping the borehole from caving in. The total boring depths for MW-1D, MW-2D and MW-3D were 53 feet bgs, 44 feet bgs and 25 feet bgs, respectively. The deeper aquifer monitoring wells were completed using 2-inch inner diameter Schedule 40 PVC from near or above the ground surface to the bottom of the screen. The screen intervals for monitoring wells MW-1D, MW-2D and MW-3D were 48-53 feet bgs, 39-44 feet bgs and 20-25 feet bgs; respectively.

The four water table monitoring wells were constructed of 2-inch inner diameter Schedule 40 PVC and were emplaced by using 4-1/4 inch inner diameter hollow stem augers. The total depths for monitoring wells MW-1 through MW-4 were 20 feet bgs, 15 feet bgs, 15 feet bgs and 18 feet bgs; respectively. The screen intervals for monitoring wells MW-1 through MW-4 are 5-20 feet bgs, 5-15 feet bgs, 5-15 feet bgs and 8-18 feet bgs; respectively.

All monitoring wells were completed with a filter sand pack, which was poured around the well annulus to 2-3 feet above the top of the screen. A minimum of 2 feet of bentonite was poured on top of the sand and hydrated. The well annulus was then grouted to the surface using portland cement. A cement pad was poured around the well at the surface and a approximate 2-1/2 foot high steel protective casing was place over the well at all locations, except for MW-2 and MW-2D which were installed in an employee parking lot and have at-grade manhole covers, allowing vehicles to drive over them. All drill cuttings and mud were containerized on site into 55-gallon drums. These investigative derived materials (IDM) were labeled and staged for future characterization near Ducane's existing drum storage area east of the production facility.

3.2 *MONITORING WELL ANALYTICAL RESULTS*

After installation, the monitoring wells were developed using a combination of surging, bailing and/or pumping until relatively sediment-free groundwater was observed. At least five well volumes were evacuated per well before sampling was initiated. Groundwater samples from the monitoring wells were collected on September 1 and September 3, 1999. After collection of the groundwater samples, they were stored on ice and subsequently shipped using chain-of-custody protocols to Specialized Assays for VOC analysis by EPA Method 8260.

The laboratory analytical results indicated the presence of VOCs above detectable limits at four of the seven groundwater sample locations. Analyses from each of the four sample locations exceeded MCLs established by the SCDHEC Bureau of Water. All of the locations that exceeded MCLs were from monitoring wells installed in the water table aquifer. These locations were MW-1, MW-2, MW-3 and MW-4. The monitoring well location with the greatest number of MCL exceedances was MW-1. This location is south of the production building. Monitoring well groundwater analytical data is provided in Table 3-1. The monitoring well groundwater laboratory results are provided in Appendix D.

Table 3-1: ***Detected Analytes Above MCLs*** [1,2,3]
Phase III Monitoring Well Groundwater Data
The Ducane Company – Blackville, South Carolina

	MW-1	MW-1D	MW-2	MW-2D	MW-3	MW-3D	MW-4	Maximum Concentration Limits (MCLs)
Carbon disulfide	10.6	ND	ND	ND	ND	ND	ND	NS
1,2-Dichloroethane	3.1	ND	ND	ND	ND	ND	ND	200
1,1-Dichloroethene	**22.5**	ND	ND	ND	ND	ND	ND	7
cis-1,2-Dichloroethene	**12,000**	ND	ND	ND	11.4	ND	2.9	70
trans-1,2-Dichloroethene	40.6	ND	ND	ND	ND	ND	ND	100
Ethylbenzene	**1,380**	ND	ND	ND	250	ND	ND	700
Isopropylbenzene	14.1	ND	ND	ND	ND	ND	ND	NS
4-Methyl-2-pentanone	17.3	ND	ND	ND	ND	ND	ND	NS
Naphthalene	11.9	ND	ND	ND	ND	ND	ND	NS
n-Propylbenzene	21.7	ND	ND	ND	ND	ND	ND	NS
Tetrachloroethene	**78.5**	ND	**6.9**	ND	**4,700**	ND	2.4	5
Toluene	685	ND	ND	ND	ND	ND	ND	1,000
Trichloroethene	**60.2**	ND	ND	ND	**34.2**	ND	**7.4**	5
1,2,4-Trimethylbenzene	178	ND	ND	ND	ND	ND	ND	NS
1,3,5-Trimethylbenzene	31.2	ND	ND	ND	ND	ND	ND	NS
Vinyl chloride	**49.1**	ND	ND	ND	ND	ND	ND	2
Xylenes	5,820	ND	ND	ND	1,480	ND	ND	10,000

1 - units in mg/kg (ppm)
2 - only analytes listed were found above their respective detection level
3 - "-" denotes no detectable concentration
4 -"NS" MCL regulatory standards do not exist for this compound

Monitoring wells and Geoprobe boring locations were surveyed by a State of South Carolina registered land surveyor on September 8-9, 1999 to determine top of casing and ground surface elevations of the monitoring wells and to locate the wells and Geoprobe borings on a map with respect to known physiographic features.

Water level measurements were collected from the monitoring wells on September 3, 1999. This information indicates that at least two distinct aquifers are present at the site. As shown in Table 4-1, depths to water table at the water table aquifer monitoring wells MW-1 through MW-4 ranged from 1.77 feet below top of the well casing at MW-2 to 8.96 feet below top of the well casing at MW-4. Depths to water table at the deeper aquifer monitoring wells MW-1D through MW-3D ranged from 3.30 feet below top of the well casing at MW-1D to 10.61 feet below top of the well casing at MW-3D. Groundwater flow direction of the water table aquifer indicates a general movement from the south-southeast to the north. Groundwater flow direction of the deeper aquifer indicates a general movement toward the southwest. Groundwater elevation maps indicating flow directions of the water table aquifer and the deep aquifer are included as Figure 4-1 and Figure 4-2, respectively. Appendix E provides a copy of the survey report.

Table 4-1: Monitoring Well Groundwater Elevations[1,2,3]
The Ducane Company
Blackville, South Carolina

Well Identification	Top of Casing Elevation	Depth to Ground- water	Ground-water Elevation
MW-1	281.95	8.05	273.90
MW-1D	281.94	10.61	271.33
MW-2	274.03	1.77	272.26
MW-2D	274.14	3.30	270.84
MW-3	279.55	5.82	273.73
MW-3D	279.80	7.30	272.50
MW-4	279.70	8.96	270.74

1 - measurements in feet
2 - top of casing elevations surveyed by Survey & Mapping Services, Inc.
3 - elevations relative to National Geodetic Vertical Datum of 1929 (formerly mean sea level)

5.0 ACCIDENTAL DISCHARGE OF NAPTHA COMPOUND

On Friday, August 27, 1999 an accidental release of a naptha compound occurred adjacent to an above-ground storage tank (AST) that reportedly stores this material. The accident reportedly occurred when a tanker truck carrying the naptha compound began pumping the material into the AST. The flow direction from the pump was apparently reversed and began discharging the naptha compound from the AST into the tanker truck until the tank overflowed. Approximately 200 gallons of the naptha compound spilled from the top intake port of the truck and then flowed onto adjacent soil and asphalt. The SCDHEC was reportedly notified of the spill. Metropolitan Environmental, Inc. was dispatched to clean up the spill and to remove and transport all affected soil. ERM personnel did not observe this accident. Frank Ducate and Mike Bianco, employees of Ducane, informed ERM personnel on August 31, 1999.

Soil samples beneath the excavated area were screened for organic vapors by a PID. The PID measured approximately 3,700 parts per million (ppm) at one location near the center but directly adjacent to the asphalt and approximately 60 ppm in the center of the excavation. Ducane's environmental consultant, Michael Hudgins, from QORE Property Sciences, Inc, confirmed these measurements.

After discussions between ERM, QORE and Ducane personnel, it was decided to remove additional affected soil. On September 1, 1999, Metropolitan Environmental, Inc. excavated additional affected soil. The excavation area was approximately 8 feet wide x 45 feet long x 2 to 3 feet deep. Two soil samples were collected via hand auger by ERM. The individual samples were split by ERM and QORE and submitted for polyaromatic hydrocarbon (PAH) analysis by each company's representative laboratory. The laboratory analytical results from HA-1 indicated no detectable concentrations of PAHs. The laboratory analytical results from HA-2 indicated non-detectable concentrations of PAHs, except for 0.231 mg/kg of naphthalene. A copy of the laboratory report for the hood auger soils samples is provided in Appendix F.

Based on the findings from the Phase III site assessment activities, it can be concluded that the groundwater in and around the production building at the Ducane facility has been impacted by certain chlorinated VOCs. While impacted, it should be noted that no VOCs were reported to be present in the groundwater samples collected from the deeper saturated zone (samples collected from a depth of 20 to 53 feet bgs). Most notably, the VOCs 1,1-Dichloroethene, cis-1,2,-Dichlorioethene, ethyl benezene, tetrachloroethene, trichloroethene and vinyl chloride each exceeded their respective MCL at MW-1; with tetrachloroethene and trichloroethylene also exceeding their MCLs at MW-2, MW-3 and MW-4. In addition to these 10 exceedances of an MCL in the samples from the monitoring wells, an additional 10 exceedances of an MCL were reported in the samples collected at locations GW-3, GW-7 GW-12 and GW-13 using the geoprobe.

Figure 6-1 provides a general depiction of the estimated areas of VOC impact to the site groundwater. As shown, ERM expects the plume(s) of VOC contamination to be in the shallow saturated zone and elongated as depicted based on the groundwater flow direction information we obtained. It should be pointed out; however, that our assumption is based on the data obtained from one round of data from the three deeper monitoring wells and the groundwater flow data from one water level measurement event.

Figure 6-2 provides a general depiction of the estimated tetrachloroethene area(s) of impact, the most prevalent VOC reported to be present. As shown, the expected area of impact generally "mirrors" the overall VOC plume(s) of contamination.

Based on the Phase III findings, ERM concludes that further investigation(s) and remediation will be required. As a requirement of SCDHEC's approval to collect the groundwater samples, the analytical data from the Phase III assessment will be required to be submitted to SCDHEC. Based on other work that ERM has performed in the state, it can be expected that SCDHEC will seek to establish a Consent Order to require the additional site investigations and/or remediation for the Ducane site. An option also available is for the site to seek a Voluntary Consent Order.

Regardless of the regulatory mechanism chosen, it is apparent that an additional site investigation(s) will be required prior to making a determination as to the remediation system. To expedite the overall process and reduce the cost, where possible, ERM recommends that the next investigation activities include the use of a geoprobe to collect additional groundwater samples (up to 30) for VOC analysis in the field (mobile laboratory); followed by the installation of up to 10 additional permanent monitoring wells based on the geoprobe findings. An additional round of samples should also be collected for the monitoring wells MW-1, MW-4, MW-10 and MW-3D.

Using the data collected from the Phase IV work, ERM recommends that a comprehensive report (all data collected to date) be prepared for presentation to SCDHEC during a meeting in Columbia, South Carolina. During this meeting, an effort should be given to ensure that all of the data collected to date is accepted by SCDHEC and that the permanent wells are accepted as the overall monitoring system. It should also be the goal to reach an "understanding", if at all possible, of the remediation concept that appears to be most appropriate to include the possible use of:

- a "mixing zone" and monitoring (natural attenuation) approach;
- air sparging and soil vapor extraction (SVE); and/or
- pump and treat.

7.0 LIMITATIONS

7.1 SCOPE OF ACTIVITY

The report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget, and schedule. To the extent that more definitive conclusions are desired by the client than are warranted by the currently available facts, it is ERM's specific intent that the conclusions and recommendations stated herein provide guidance and not necessarily a firm course of action, except where explicitly stated.

We make no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. In addition, the information provided to the client in this report is not to be construed as legal advice.

7.2 LIMITATIONS OF USE OF THIS REPORT

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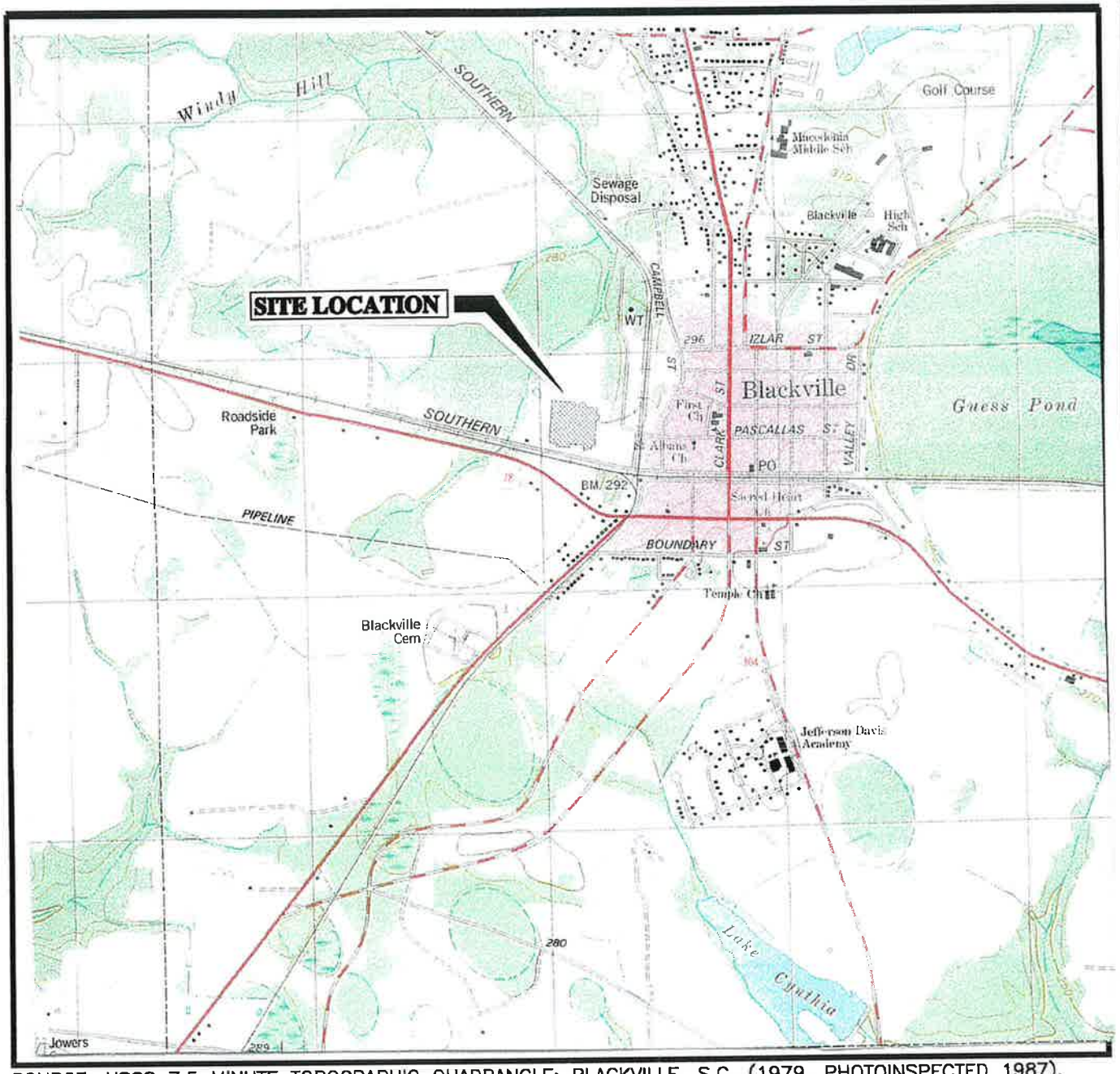
Figures



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE: BLACKVILLE, S.C. (1979, PHOTOINSPECTED 1987).

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 1/2 0 1 KILOMETER

N

SOUTH CAROLINA

QUADRANGLE LOCATION

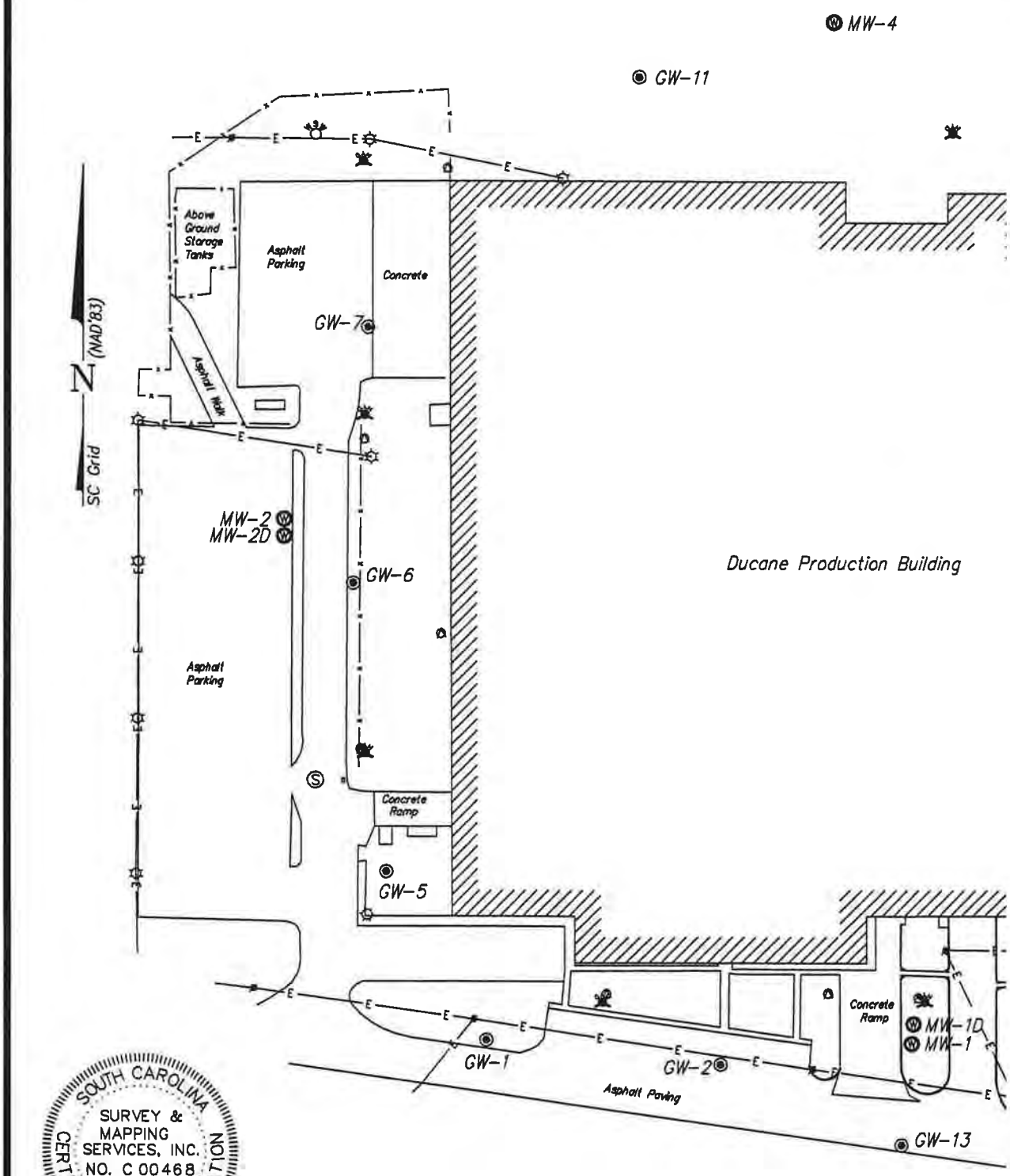
SCALE 1:24000

ERM Environmental Resources Management

GENERAL SITE LOCATION
THE DUCANE COMPANY
BLACKVILLE, SOUTH CAROLINA

FIGURE
1—1

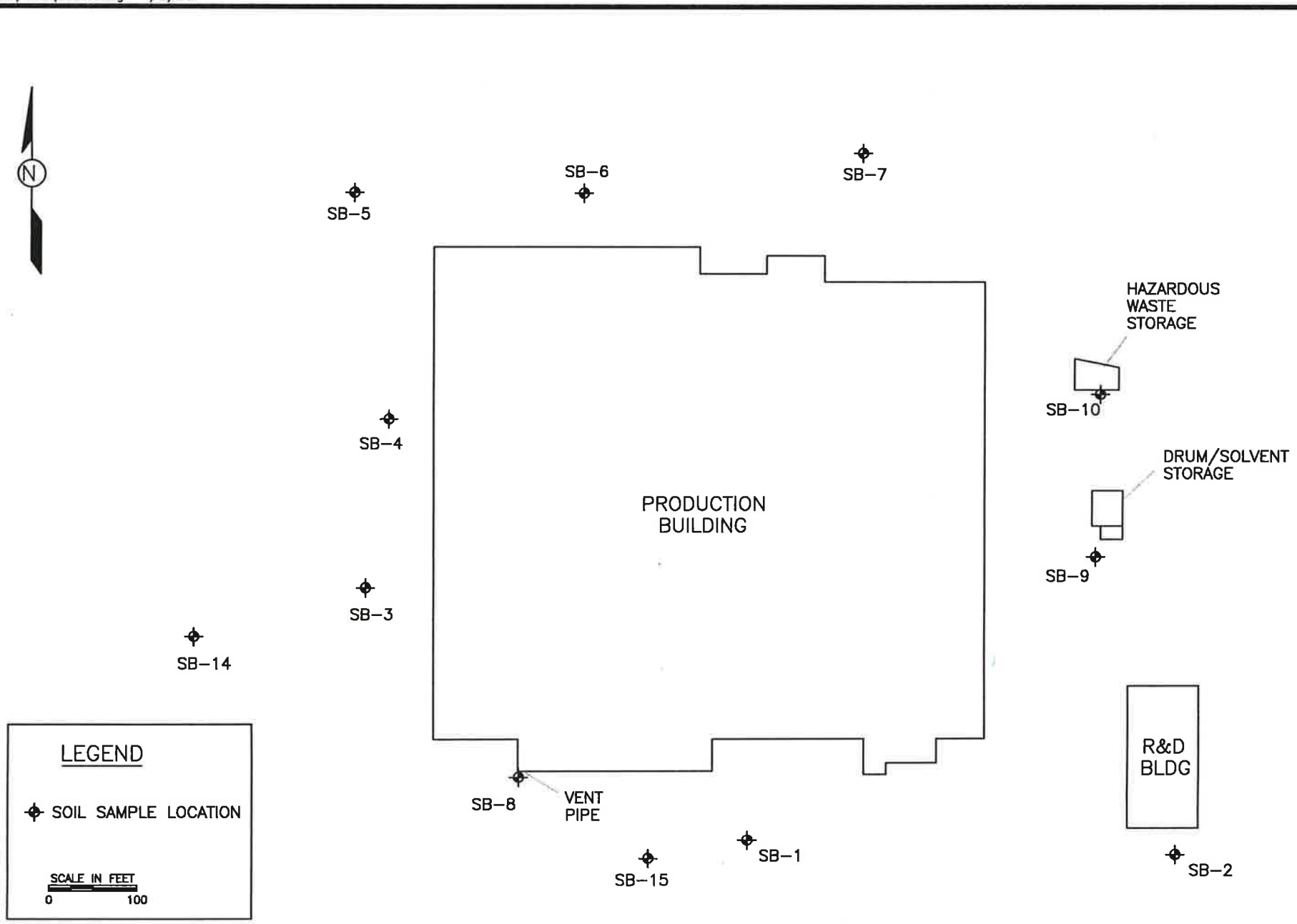
9489SITE.DWG 09-20-99 MV



SOUTH CAROLINA
SURVEY & MAPPING SERVICES, INC.
NO. C 00468
CERTIFICATE OF AUTHORIZATION

ERM Environmental Resources Management

9489/samploc1r.dwg 7/6/99 EW



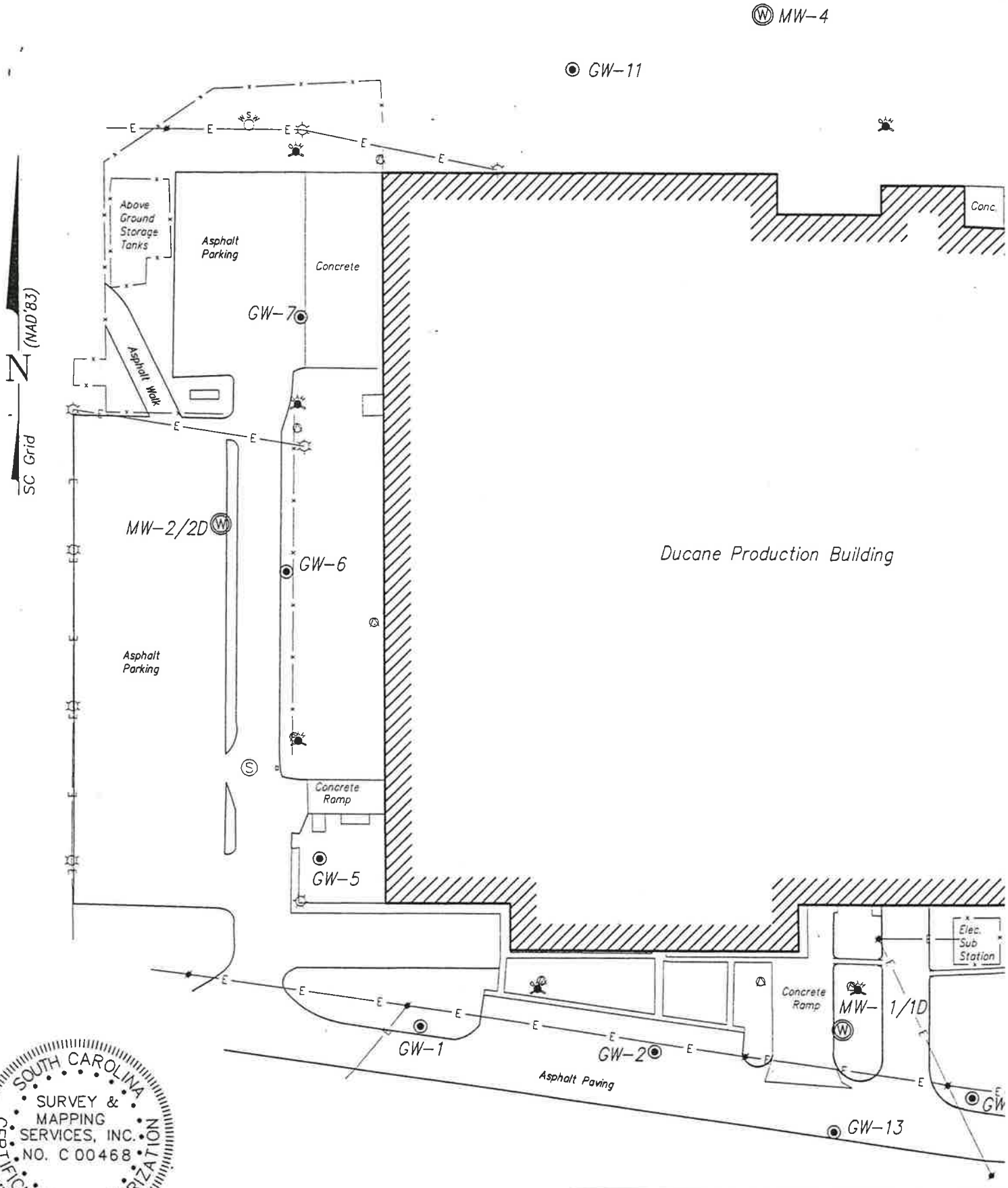
Environmental Resources Management

ERM

SOIL SAMPLE LOCATIONS

LIMITED PHASE II ASSESSMENT
THE DUCANE COMPANY
BLACKVILLE, SOUTH CAROLINA

FIGURE
1-3



SOUTH CAROLINA
SURVEY & MAPPING SERVICES, INC.
NO. C 00468
CERTIFICATE OF AUTHORIZATION

SURVEY & MAPPING

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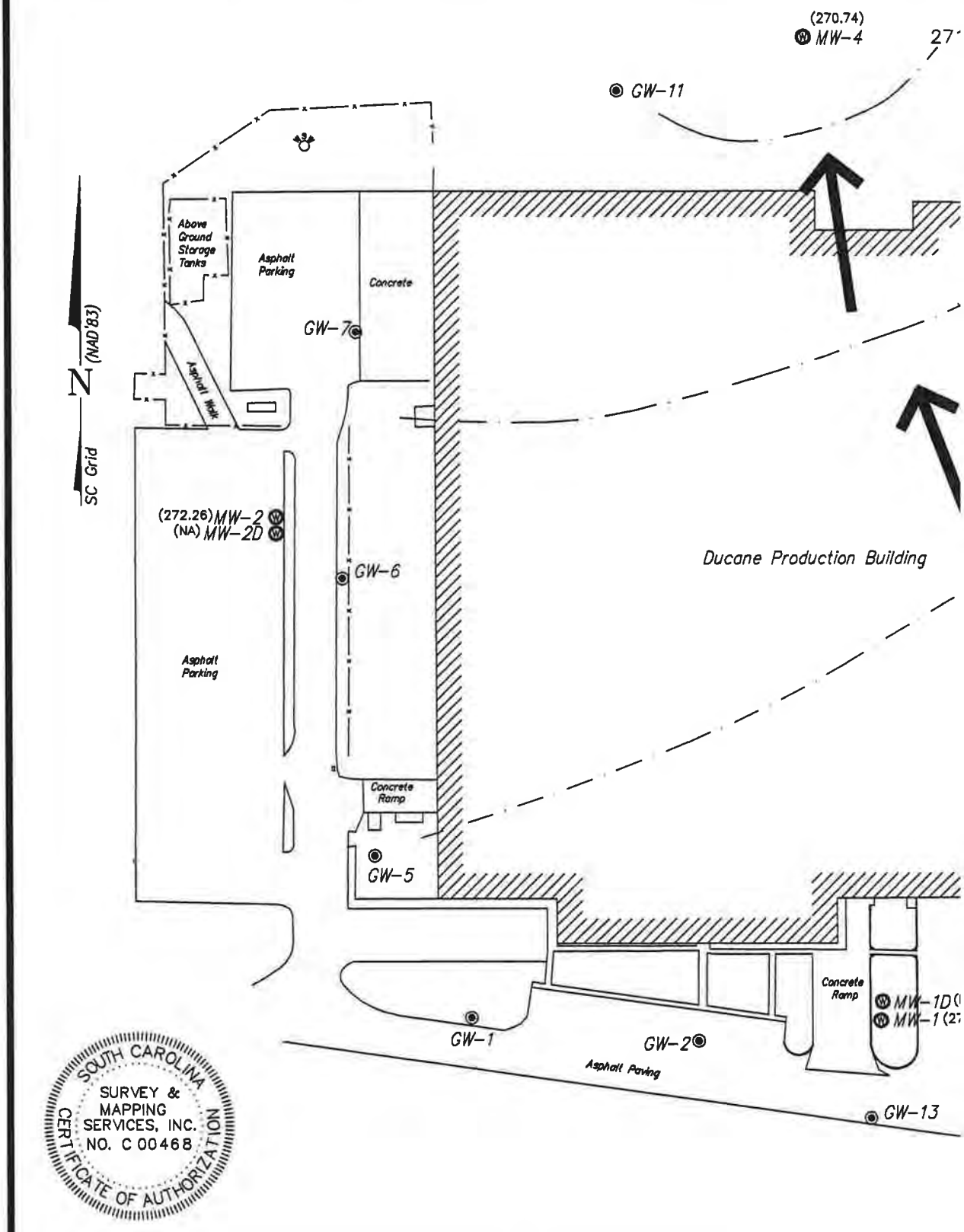

SOUTH CAROLINA
SURVEY & MAPPING SERVICES, INC.
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ERM Environmental Resources Management

WATER TA

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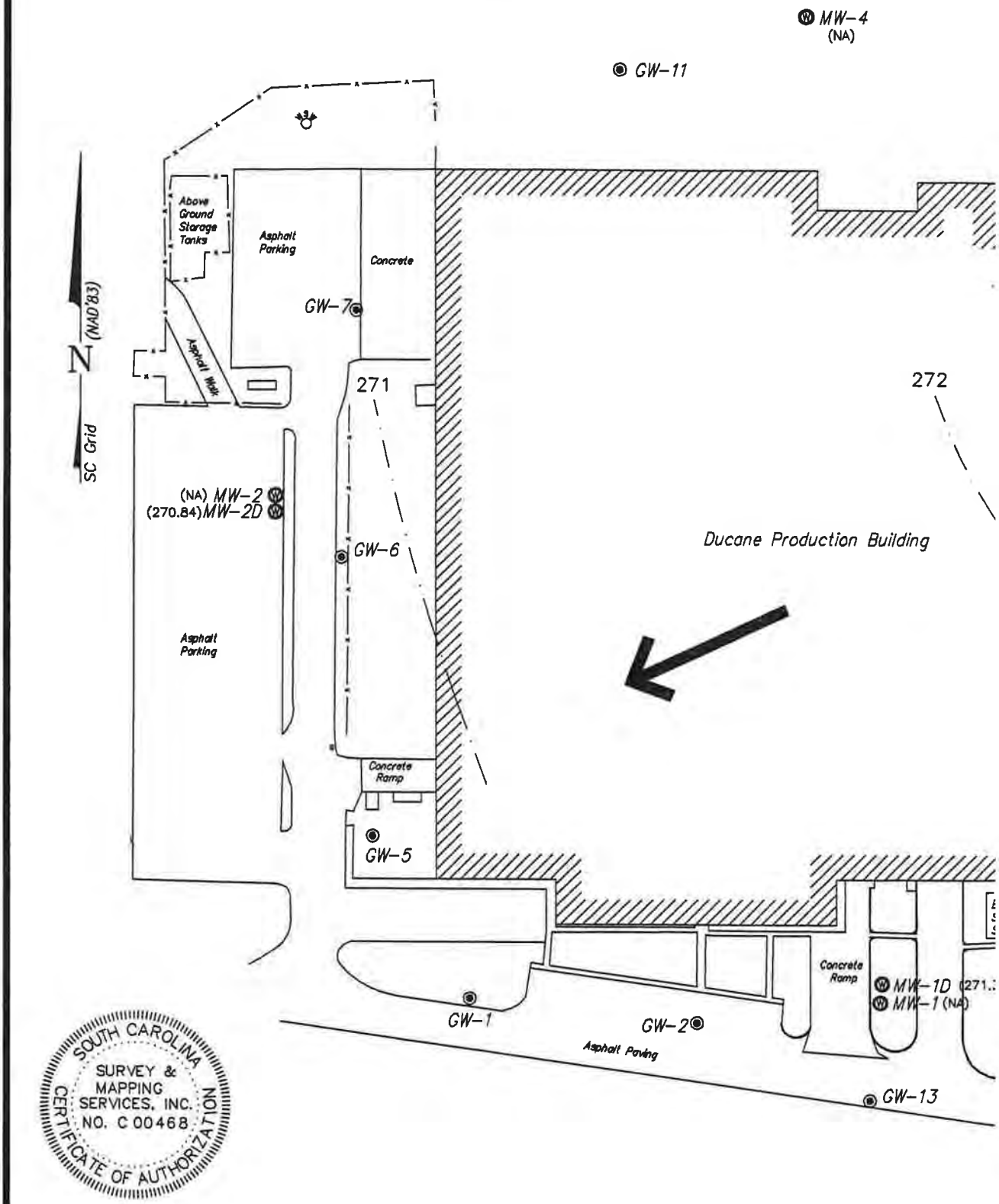
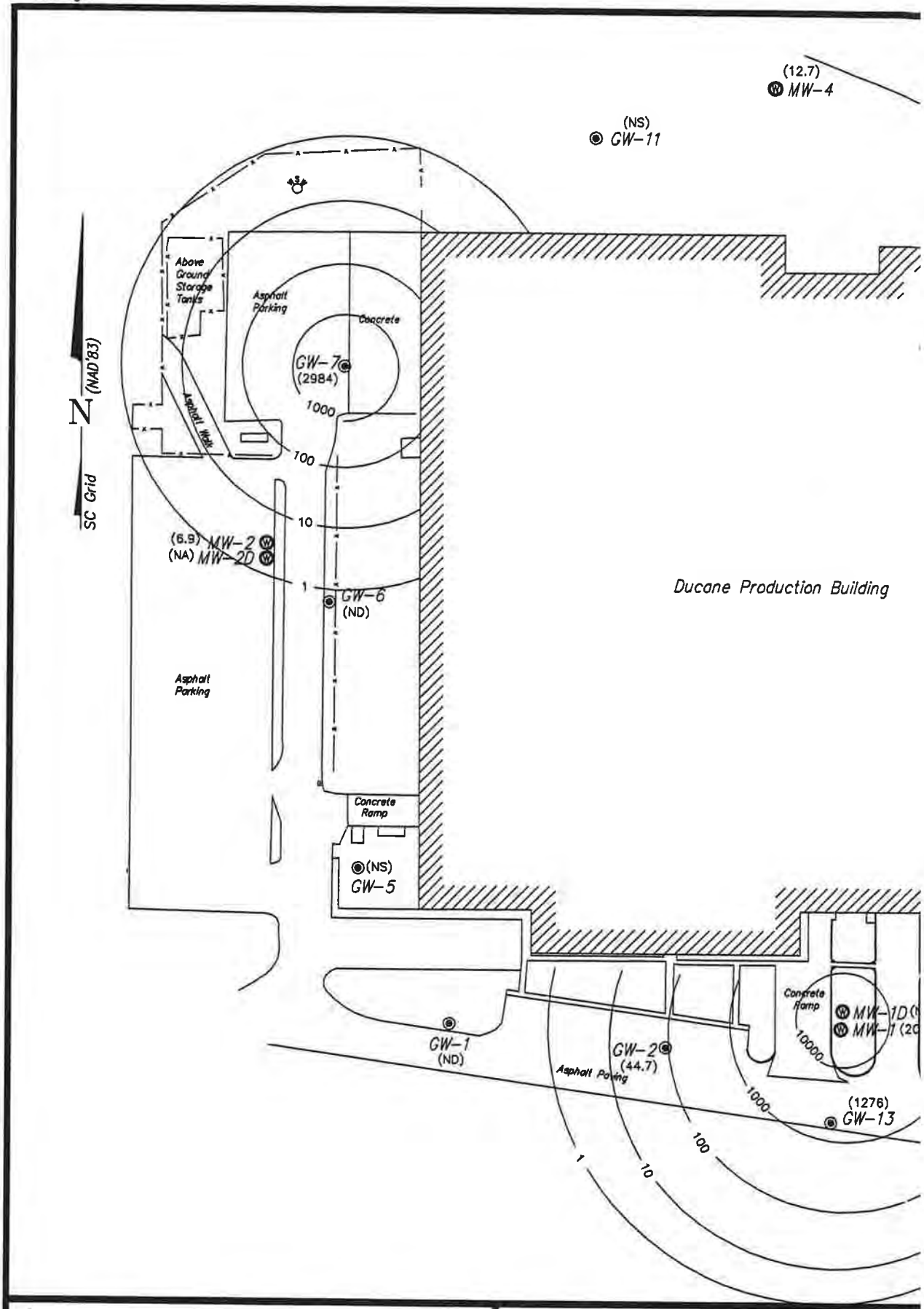


SOUTH CAROLINA
SURVEY & MAPPING SERVICES, INC.
NO. C 00468
CERTIFICATE OF AUTHORIZATION

ERM Environmental Resources Management

LOWER AQUI

9489fig6-1.DWG 09-20-99 MV



ERM Environmental Resources Management

WATER TABLE AQUIFER T
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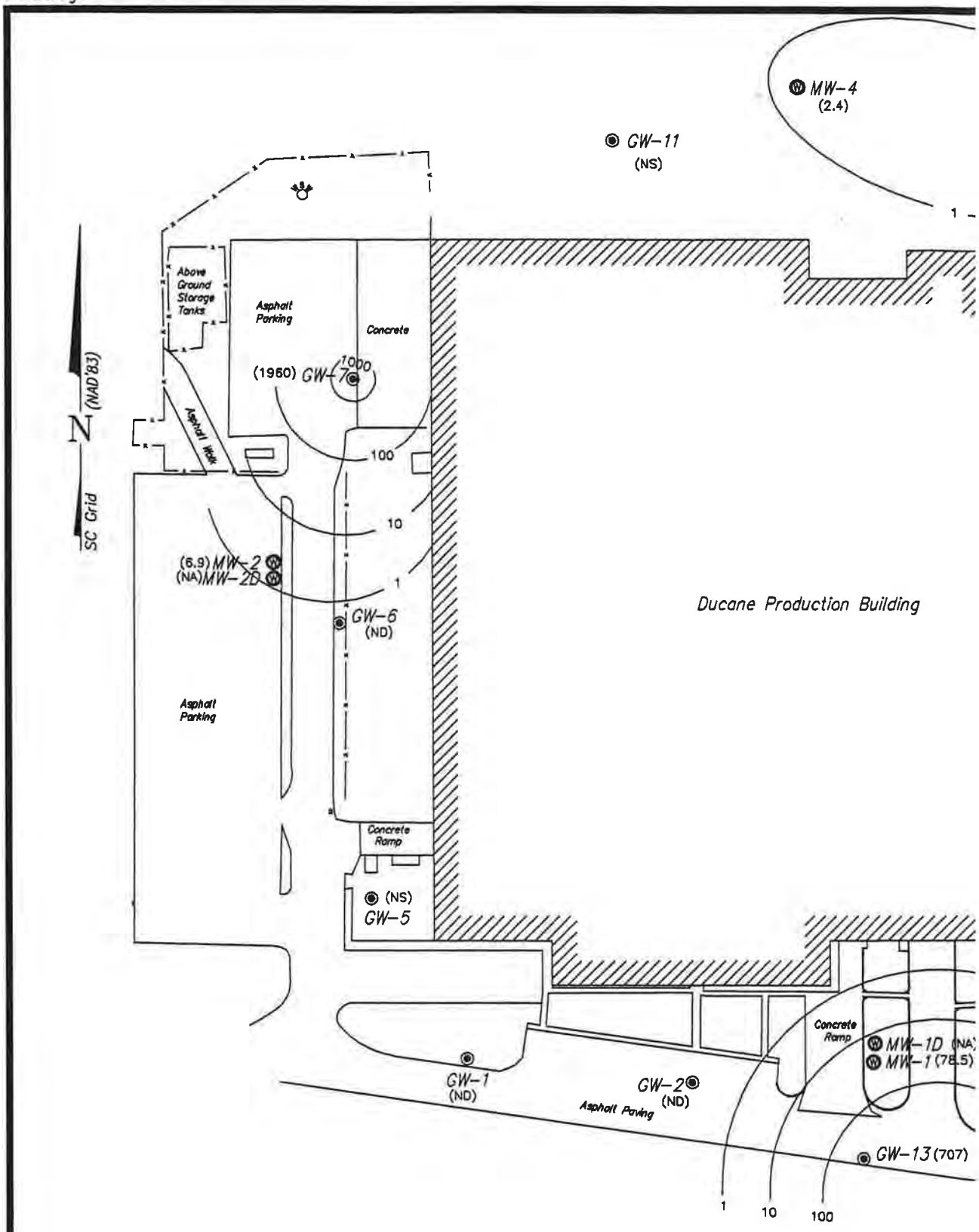
9489fig6-2.DWG 09-20-99 MV



Environmental Resources Management

ERM

WATER TABLE AQUIFE

AUG

Appendix A
SCDHEC Well Installation
Approval Letter

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

BUREAU OF WATER

FAX MESSAGE

Date: Aug. 13, 1999

Number of Pages Including Cover Sheet: 4

Please Deliver This Fax Message To:

TO: John Deal
(Name)
ERM
(Organization/Department)

(843) 856-4283 (Fax Number) (843) 856-4270 (Phone Number)

FROM: Mike Rivers
Bureau of Water, SCDHEC
Fax #: (803) 898-3795 **Phone #:** (803) 898-4258

SUBJECT/COMMENTS: Well installation approval for the Ducane Co. facility.

Please call Dist. Office at (803) 641-7670 to notify them of drilling.

D H E C

PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
Douglas E. Bryant

BOARD:
John H. Burriss
Chairman

William M. Hull, Jr., MD
Vice Chairman

Roger Leaks, Jr.
Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

August 13, 1999

Mr. John Deal, Jr.
Environmental Resources Management
498 Wando Park Blvd., Suite 100
Mt. Pleasant, SC 29464

RE: The Ducane Company; Site ID# 01356
Monitoring Well Installations, August 11, 1999
Barnwell County

Dear Mr. Deal:

The South Carolina Department of Health and Environmental Control (Department) has reviewed and approved the referenced monitoring well installation request. The groundwater analytical results should be submitted to my attention within thirty (30) days of receipt from the laboratory. Please submit a hardcopy of the well installation proposal.

If you have any questions, please contact me at (803) 898-4258.

Sincerely,

Michael Rivers

Michael Rivers, Hydrogeologist
Groundwater Quality Section
Water Monitoring, Assessment & Protection Division
Bureau of Water

MR
DUCANE1

Attachment: Monitoring well approval

cc: Lower Savannah District EQC
Mr. Frank Ducate

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

COMMISSIONER:
Douglas E. Bryant

BOARD:
John H. Burriss
Chairman

William M. Hull, Jr., MD
Vice Chairman

Roger Leaks, Jr.
Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

Date of Issue: August 13, 1999
Approval No. 558

Monitoring Well Installation Approval

Approval is hereby granted to: Environmental Resources Management
(on behalf of): Lennox International, Inc.
Site ID#: 01356
County: Barnwell

This approval is for the construction of up to 18 Geoprobe borings (wells) designated GW-1 through GW-18, for permanent monitoring wells designated MW-1 through MW-4 and MW-1D through MW-3D in accordance with the construction plans and technical specifications submitted to the Department on August 11, 1999. The wells are to be constructed within the surficial aquifer (and next deeper aquifer for MW-1D, MW-2D, and MW-3D) for the intended purpose of monitoring groundwater quality and/or water levels at the referenced facility. Approval is provided with the following conditions, where applicable):

1. The surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well shall be submitted within thirty (30) days of completion (of last well installed). The actual locations shall be plotted on a scaled map.

2. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, purge and development 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 the Lower Savannah District EQC Office at (803) 641-7670.

4. Please provide groundwater quality analytical data (chemical analyses and/or water levels) and in-situ field measurements within thirty (30) days of receipt from the laboratory.

5. The 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 with state certification number.

7. Well abandonment shall be in accordance with R.61-71.10.

This approval is pursuant to the provision 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: Michael Rivers for

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

BTK/MR

Appendix B
Soil Boring Logs

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25–99	Split Spoon	HSA	4.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGGED BY**
30 Feet	279.0 feet AMSL	ECS	Jim Dudley	J. Prosser
WATER LEVEL: 8.05 Feet		**COMMENTS:** Page 1 of 2		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	Moist	No. 1	0.0–5.0 Feet: Mottled gray and brown fine sandy clay. Moist at 3.5 feet.	7.8
5	Moist Hydrocarbor odors present	No. 2	5.0–9.5 Feet: Light gray coarse sandy clayey silt. Wet at 9.5 feet. Cohesive.	3.8
10	Wet	No. 3	9.5–13.0 Feet: Medium gray fine sandy silt. No odor. Cohesive.	2.7
15				
	Wet	No. 4	18.0–20.0 Feet: Loose white slightly silty coarse sand. Non–cohesive.	0.0
20				
	Wet	No. 5	24.0–26.0 Feet: Beige, soft, slightly sandy silt grading downward into slightly clayey silt. Cohesive.	6.3
25				

ERM–Southeast, Inc.
Charleston, South Carolina
ERM

GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–1

BRINGLOG.DWG MM–DD–YY AM 1=1 TIWK

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25–99	Split Spoon	HSA	4.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGGED BY**
30 Feet	279.0 feet AMSL	ECS	Jim Dudley	J. Prosser
WATER LEVEL: 8.05 Feet		**COMMENTS:** Page 2 of 2		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	Moist	No. 6	28.0–30.0 Feet: Soft, tan slightly clayey silt. Cohesive.	4.1
30			BORING TERMINATED @ 30 FEET	

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Charleston, South Carolina
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GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–1

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25–99	Split Spoon	HSA	4.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGED BY**
20 Feet	274.4 feet AMSL	ECS	Jim Dudley	J. Prosser
WATER LEVEL: 1.77 Feet		**COMMENTS:**		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	Moist	No. 1	0.0–4.0 Feet: Stiff mottled gray and tan clayey sand. Low permeability.	0.0
5	Moist	No. 2	4.0–7.0 Feet: Medium mottled tan and gray clayey to silty sand. Moderately permeable. Wet at 6 ft.	0.0
10	Wet	No. 3	10.0–11.5 Feet: Loose light gray and tan silty sand. Permeable. Non–cohesive.	0.0
		No. 4	11.5–12.0 Feet: Soft gray and tan fine sandy silt. Cohesive.	0.0
15		No. 5	14.0–16.0 Feet: Soft well sorted light gray slightly clayey silt. Cohesive.	0.0
		No. 6	18.0–20.0 Feet: Soft, well sorted light gray slightly clayey silt. Cohesive.	0.0
20			BORING TERMINATED @ 20 FEET	
25				

BRINGLOG.DWG MM–DD–YY AM 1=1 TIWK

ERM–Southeast, Inc.
Charleston, South Carolina
ERM

GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–2

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25–99	Split Spoon	HSA	4.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGGED BY**
15 Feet	276.8 feet AMSL	ECS	Jim Dudley	J. Prosser

WATER LEVEL: 5.82 Feet

COMMENTS:

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	No odor	No. 1	0.0–2.0 Feet: Stiff light brown fine sandy clay.	52.6
		No. 2	2.0–6.0 Feet: Soft dark gray to black silty clay. Organic–rich clay.	
5		No. 3	6.0–10.0 Feet: Beige/gray poorly sorted sandy silty clay with abundant roots. 6–in. sandy silt layer @ 7 ft.	9.0
10		No. 4	10.0–11.0 Feet: Stiff light gray poorly sorted silty sandy clay	1.4
15			BORING TERMINATED @ 15 FEET	
20				
25				

ERM–Southeast, Inc.
Charleston, South Carolina
ERM

GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–3

BRINGLOG.DWG MM–DD–YY AM 1=1 TIWK

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08-31-99	Split Spoon	HSA	4.25-inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGGED BY**
20 Feet	276.8 feet AMSL	ECS	Jim Dudley	D. Maxam
WATER LEVEL: 8.96 Feet		**COMMENTS:**		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	Moist	No. 1	3.0-5.0 Feet: Orange-brown sandy clay with gray mottles	6.1
5				
	Wet	No. 2	8.0-9.5 Feet: Orange-brown sandy clay with gray mottles	3.0
10			9.5-10.0 Feet: Tan sand, medium grained, well sorted, medium dense	
	Sat.	No. 3	13.0-15.0 Feet: Tan, slightly clayey sand, well sorted, medium grained, loose	1.6
15				
	Moist-Wet	No. 4	18.0-20.0 Feet: Gray slightly sandy clay, very stiff.	1.6
20			BORING TERMINATED @ 20 FEET	
25				

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Charleston, South Carolina

GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW-4

BORINGLOG.DWG 11-MAY-00 11:11 AM 1=1

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25–99	Split Spoon	HSA	4.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGED BY**
30 Feet	279.0 feet AMSL	ECS	Jim Dudley	J. Prosser
WATER LEVEL: 10.61 Feet		**COMMENTS:** Page 1 of 2		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	Moist	No. 1	0.0–5.0 Feet: Mottled gray and brown fine sandy clay. Moist at 3.5 feet.	7.8
5	Moist	No. 2	5.0–9.5 Feet: Light gray coarse sandy clayey silt. Wet at 9.5 feet. Cohesive.	3.8
10	Wet	No. 3	9.5–13.0 Feet: Medium gray fine sandy silt. No odor. Cohesive.	2.7
15				
	Wet	No. 4	18.0–20.0 Feet: Loose white slightly silty coarse sand. Non–cohesive.	0.0
20				
	Wet	No. 5	24.0–26.0 Feet: Beige, soft, slightly sandy silt grading downward into slightly clayey silt. Cohesive.	6.3
25				

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Charleston, South Carolina
ERM

GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–1D

DRINGLOG.DWG MM–DD–YY AM 1=1 11WK

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25,09–01–99	Split Spn/Cuttings	HSA/Mud Rotary	4.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGGED BY**
53 Feet	279.0 feet AMSL	ECS	Jim Dudley	J. P./D. Maxam
WATER LEVEL: 10.61 Feet		**COMMENTS:** Page 2 of 2		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	Moist	No. 6	28.0–30.0 Feet: Soft tan slightly clayey silt. Cohesive.	4.1
	Moist	No. 7	33.0–35.0 Feet: Orange and light tan striated silt, medium–stiff.	4.1
35				
	Moist	No. 8	38.0–39.5 Feet: Orange and light tan striated silt, medium stiff.	0.6
40			39.5–40.0 Feet: Gray silt.	
	Moist	No. 9	43.0–45.0 Feet: Gray silt with angular quartz, feldspar and hornblende grains (<10%) intermixed. Feldspar has been moderately weathered. Stiff.	0.6
45				
	Sat.	No. 10	Gray–green sand, moderate to coarse grained, some silt.	0.0
50				
			BORING TERMINATED @ 53 FEET	

BHINGLUG.DWG MM-DD-YY AM 1=1 11WK

ERM

ERM–Southeast, Inc.
Charleston, South Carolina

GEOLOGIC SOIL BORING LOG

Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–1D

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25,09–02–99	Split Spoon	HSA/Mud Rotary	8.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGED BY**
44 Feet	274.4 feet AMSL	ECS	Jim Dudley	J. P./D. Maxam
WATER LEVEL: 3.30 Feet		**COMMENTS:** Page 1 of 2		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	Moist	No. 1	0.0–4.0 Feet: Stiff mottled gray and tan clayey sand. Low permeability.	0.0
5	Moist	No. 2	4.0–7.0 Feet: Medium mottled tan and gray clayey to silty sand. Moderately permeable. Wet at 6 ft.	0.0
10	Wet	No. 3	10.0–11.5 Feet: Loose light gray and tan silty sand. Permeable. Non–cohesive.	0.0
		No. 4	11.5–12.0 Feet: Soft gray and tan fine sandy silt. Cohesive.	0.0
15		No. 5	14.0–16.0 Feet: Soft well sorted light gray slightly clayey silt. Cohesive.	0.0
20		No. 6	18.0–20.0 Feet: Soft, well sorted light gray slightly clayey silt. Cohesive.	0.0
25		No. 7	23.0–25.0 Feet: Gray silt, medium stiff to stiff.	108.9

BRINGLOG.DWG MM–DD–YY AM 1=1 TIWK

ERM

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Charleston, South Carolina

GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–2D

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08–25,09–02–99	Split Spn/Cuttings	HSA/Mud Rotary	8.25–inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGGED BY**
44 Feet	274.4 feet AMSL	ECS	Jim Dudley	J. P./D. Maxam
WATER LEVEL: 3.30 Feet		**COMMENTS:** Page 2 of 2		

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
30		No. 8	28.0–30.0 Feet: Gray silt, medium stiff to stiff.	143.4
35		No. 9	33.0–35.0 Feet: Gray silt with angular quartz, feldspar and hornblende grains (<10%) intermixed. Feldspar has been moderately weathered. Stiff.	15.8
40		No.10	38.0–40.0 Feet: As above, grading to gray–green sand, moderate to very coarse grained.	1.2
45			BORING TERMINATED @ 44 FEET	

ERM–Southeast, Inc.
Charleston, South Carolina
ERM

GEOLOGIC SOIL BORING LOG
Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING
MW–2D

BRINGLOG.DWG MM–DD–YY AM 1=1 11WK

PROJECT NUMBER	INSTALLATION DATE	SAMPLING METHODS	DRILLING METHOD	DIAMETER
9489	08-25/09-02-99	Split Spn/Cuttings	HSA/Mud Rotary	8.25-inch
TOTAL DEPTH	**SURFACE ELEVATION**	**DRILLING CO.**	**DRILLER**	**LOGGED BY**
26 Feet	276.8 feet AMSL	ECS	Jim Dudley	J. P./D. Maxam

WATER LEVEL: 8.05 Feet

COMMENTS:

DEPTH (FT.)	ODOR WET/DRY	SAMPLE TYPE / No.	DESCRIPTION	PID
	No odor	No. 1	0.0–2.0 Feet: Stiff light brown fine sandy clay.	52.6
		No. 2	2.0–6.0 Feet: Soft dark gray to black silty clay. Organic-rich clay.	
5		No. 3	6.0–10.0 Feet: Beige/gray poorly sorted sandy silty clay with abundant roots. 6-in. sandy silt layer @ 7 ft.	9.0
10		No. 4	10.0–11.0 Feet: Stiff light gray poorly sorted silty sandy clay	1.4
15		No. 5	14.0–16.0 Feet: Medium well sorted light gray clay	0.0
		No. 6	18.0–20.0 Feet: Well sorted sand. 1-inch light gray slightly sandy clay @ 19.9 ft. Cohesive.	0.3
20				
		No. 7	24.0–26.0 Feet: Soft mottled tan and light gray fine sandy silt. Cohesive.	1.9
25				

BKINGLOG.DWG MM-DD-YY AM 1=1 IIWK

ERM

ERM-Southeast, Inc.
Charleston, South Carolina

GEOLOGIC SOIL BORING LOG

Phase III ESA
The Ducane Company
Blackville, SC

SOIL BORING

MW-3D

Boring Logs will be provided under separate cover.

Appendix C
Geoprobe Laboratory Analytical Data

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

"HUNTINGTON/HYDROLOGIC-CHARLE 9424
"TRESA BRAILSFORD
9884 JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132584
Sample ID: GW-1
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J.P.

Date Collected: 8/25/99
Time Collected: 16:20
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Mcwa Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Benzene	ND	ug/l	10.0	10.0	1	8/30/99	14:16	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Bromodichloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
n-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	14:16	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
tert-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	14:16	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132384
Sample ID: GW-1

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	14:16	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
p-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	14:16	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	14:16	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Tetrachloroethene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Trichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Dibromodichloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:16	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	100.	60. - 130.
VOA Surr, Toluene d8	94.	80. - 123.
VOA Surr, 4-BFB	86.	73. - 122.
VOA Surr, DBFM	97.	74. - 134.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132584
Sample ID: GW-1

Report Approved By: JMitchell Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLE 9424
TERESA BRAILSFORD
7884 JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A102585
Sample ID. GW-2
Sample Type: Water
Site ID:

Project: 9469
Project Name:
Sampler: D. MAXAM/J. P.

Date Collected: 8/25/99
Time Collected: 17:10
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	14:51	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	14:51	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
tert-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	5.0	1	8/30/99	14:51	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	14:51	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,1-Dichloroethene	3.1	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
cis-1,2-Dichloroethene	5.1	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
trans-1,2-Dichloroethene	11.3	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132585
Sample ID: GW-2

Analyte	Result	Units	Report Limit	Mass Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Ethylbenzene	2.7	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	14:51	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	14:51	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	14:51	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Tetrachloroethene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Trichloroethene	4.2	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	4.1	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Xylenes	13.5	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Bromodichloromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	14:51	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	107.	60. - 138.
VOA Surr, Toluene d8	96.	80. - 123.
VOA Surr, 4-BFB	100.	73. - 122.
VOA Surr, DBFM	101.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132585
Sample ID: GW-2

Report Approved By: _____ Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLE 8424
ERESA BRAILSFORD
7855A JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132586
Sample ID: GW-3
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J.P.

Date Collected: 8/25/99
Time Collected: 17:30
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	16:35	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	16:35	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
t-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	16:35	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
cis-1,2-Dichloroethene	6.2	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132586
Sample ID: GW-3

Analyte	Result	Units	Report Limit	Mdeq Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	16:35	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	16:35	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	16:35	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Tetrachloroethene	106	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Trichloroethene	66.7	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	16:35	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	109.	80. - 136.
VOA Surr, Toluene d8	98.	90. - 123.
VOA Surr, 4-BFB	91.	75. - 122.
VOA Surr, DBFM	101.	74. - 133.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132586
Sample ID: GW-3

Report Approved By: J Mitchell Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLE 8424
TERESA BRAILSFORD
7285A JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132587
Sample ID: GW-4
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J.P.

Date Collected: 8/29/99
Time Collected: 17:30
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	17:10	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	17:10	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
tert-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	17:10	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132587
Sample ID: GW-4

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	17:10	J.Haley	82600	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	17:10	J.Haley	82600	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	17:10	J.Haley	82600	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Tetrachloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Trichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Bromodichloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:10	J.Haley	82600	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCB, d4	109.	60. - 130.
VOA Surr, Toluene d8	97.	80. - 123.
VOA Surr, 4-BFB	102.	73. - 122.
VOA Surr, DCM	96.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132587
Sample ID: GW-4

Report Approved By: _____ Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLS 8424
TERESA BRAILSFORD
956A JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132588
Sample ID: GW-8
Sample Type: Water
Site ID:

Project: 9459
Project Name:
Sampler: D. MAXAM/J.P.

Date Collected: 8/26/99
Time Collected: 9:20
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Mean Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	17:45	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	17:45	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
tert-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	17:45	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456

COPY 1

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132588
Sample ID: GW-8

Analyte	Result	Units	Report Limit	Run Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	17:45	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	17:45	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	17:45	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Tetrachloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Trichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	1.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Bromodichloromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	17:45	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	99.	68. - 138.
VOA Surr, Toluene d8	108.	80. - 123.
VOA Surr, 4-BFB	102.	79. - 122.
VOA Surr, DCFM	95.	74. - 133.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132588
Sample ID: GW-8

Report Approved By: _____ Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

VESTAMERICA/HYDROLOGIC-CHARLE 8424
TERESA BRAILSFORD
9884 JOHNNIE DODDS BLVD
MT. PLEASANT, SC 29464

Lab Number: 99-A132589
Sample ID: GW-9
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J. P.

Date Collected: 8/26/99
Time Collected: 9:40
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	18:20	J.Haley	82600	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	18:20	J.Haley	82600	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
tert-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	18:20	J.Haley	82600	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	82600	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132589
Sample ID: GW-9

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	18:20	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	18:20	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	18:20	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Tetrachloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Trichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Dibromodichloromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:20	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCB, d4	111.	60. - 138.
VOA Surr, Toluene d8	91.	80. - 123.
VOA Surr, 4-BFB	92.	73. - 122.
VOA Surr, DBFM	102.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132589
Sample ID: GW-9

Report Approved By: _____ Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

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Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLE 2429
TERESA BRAILSFORD
7884 JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132590
Sample ID: GW-10
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J. P.

Date Collected: 8/26/99
Time Collected: 10:10
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Rune Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	18:55	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
n-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	18:55	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
tert-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	18:55	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132590
Sample ID: GW-10

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Ethylbenzene	9.1	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	18:55	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	18:55	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	18:55	J.Haley	8260B	4456
Naphthalene	7.4	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
n-Propylbenzene	2.7	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Tetrachloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Toluene	2.6	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Trichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	3.3	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Xylenes	29.4	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Dibromofluoromethane	85	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	18:55	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	105.	60. - 130.
VOA Surr, Toluene d8	95.	80. - 123.
VOA Surr, 4-BFB	105.	73. - 122.
VOA Surr, DBFM	100.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132590
Sample ID: GW-10

Report Approved by: _____ Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

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ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLS 5424
TERESA BRAILSFORD
9856 JOHNNIE DODDS BLVD
MT. PLEASANT, SC 29464

Lab Number: 99-A132591
Sample ID: GW-12
Sample Type: Water
Site ID:

Project: 7489
Project Name:
Sampler: D. MAXAM/J. P.

Date Collected: 8/26/99
Time Collected: 11:00
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Hexane	ND	ug/l	10.0	10.0	1	8/30/99	19:30	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	19:30	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
t-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	19:30	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132591
Sample ID: GW-12

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	19:30	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
p-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	19:30	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	19:30	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Tetrachloroethene	7.1	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Trichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Dibromodichloromethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	19:30	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCB, d4	110.	60. - 130.
VOA Surr, Toluene d8	108.	80. - 123.
VOA Surr, 4-BFB	99.	73. - 122.
VOA Surr, DCEM	78.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132591
Sample ID: GW-12

Report Approved By: JMitchell Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

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Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

"ESTAMERICA/HYDROLOGIC-CHARLE 5424
'ERESA BRAILSFORD
9554 JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132392
Sample ID: GW-7
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J. P

Date Collected: 8/26/99
Time Collected: 13:30
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	20:05	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	20:05	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
t-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	20:05	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,1-Dichloroethene	32.0	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
cis-1,2-Dichloroethene	22.3	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132592
Sample ID: GW-7

Analyte	Result	Units	Report Limit	Mean Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	20:05	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	20:05	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	20:05	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Tetrachloroethene	1760	ug/l	20.0	2.0	10	8/31/99	17:26	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,1,2-Trichloroethane	30.6	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Trichloroethene	738.	ug/l	20.0	2.0	10	8/31/99	17:26	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Dibromofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456
Dichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	20:05	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCB, d4	92.	60. - 130.
VOA Surr, Toluene d8	98.	80. - 120.
VOA Surr, 4-BFB	97.	73. - 122.
VOA Surr, DBFM	97.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132592
Sample ID: GW-7

Report Approved By: Mitchell Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael N. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLE 8424
TERESA BRAILSFORD
7855A JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132593
Sample ID: GW-6
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J P.

Date Collected: 8/25/99
Time Collected: 14:00
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	8/31/99	18:52	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/31/99	18:52	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
t-Butylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/31/99	18:52	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132593
Sample ID: GW-6

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Ethylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/31/99	18:52	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/31/99	18:52	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/31/99	18:52	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Tetrachloroethene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Trichloroethene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Vinyl chloride	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Xylenes	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/31/99	18:52	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCE, d4	73.	60. - 138.
VOA Surr, Toluene d8	104.	80. - 123.
VOA Surr, 4-BFB	86.	73. - 122.
VOA Surr, DBFM	100.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
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ANALYTICAL REPORT

Laboratory Number: 99-A132593
Sample ID: GW-6

Report Approved By: _____ Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

TESTAMERICA/HYDROLOGIC-CHARLE 8424
TERESA BRAILSFORD
5430A JOHNNIE DODDS BLDV
MT. PLEASANT, SC 29464

Lab Number: 99-A132594
Sample ID: GW-13
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: D. MAXAM/J.P.

Date Collected: 8/26/99
Time Collected: 15:00
Date Received: 8/28/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	8/30/99	21:14	J.Haley	8260B	4456
Benzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Bromobenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Bromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Bromoform	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Bromomethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
2-Butanone	ND	ug/l	10.0	10.0	1	8/30/99	21:14	J.Haley	8260B	4456
n-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
tert-Butylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Carbon disulfide	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Chlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Chloroethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Chloroform	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Chloromethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	8/30/99	21:14	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Dibromomethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
cis-1,2-Dichloroethene	33.7	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132594
Sample ID: GW-13

Analyte	Result	Units	Report Limit	Room Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Ethylbenzene	66.6	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
2-Hexanone	ND	ug/l	10.0	10.0	1	8/30/99	21:14	J.Haley	8260B	4456
Isopropylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
p-Isopropyltoluene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	8/30/99	21:14	J.Haley	8260B	4456
Methylene chloride	ND	ug/l	10.0	10.0	1	8/30/99	21:14	J.Haley	8260B	4456
Naphthalene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
n-Propylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Styrene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Tetrachloroethene	707.	ug/l	20.0	2.0	10	8/31/99	21:11	J.Haley	8260B	4456
Toluene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Trichloroethene	337.	ug/l	20.0	2.0	10	8/31/99	21:11	J.Haley	8260B	4456
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Vinyl chloride	3.0	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Xylenes	157.	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Dibromochloromethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	8/30/99	21:14	J.Haley	8260B	4456

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VBR Surr, 1,2-DCE, d4	100.	60. - 130.
VBA Surr, Toluene d8	99.	80. - 120.
VBR Surr, 4-BFB	94.	73. - 122.
VBR Surr, DBFM	97.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A132594
Sample ID: GW-13

Report Approved By: _____ Report Date: 9/ 2/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

C ı of tody ord

TESTAMERICA INC. #84124 page 1 of 2

❒ Asheville, NC (A) (828) 254-5169 ❒ Bartlett, IL (C) (630) 289-3100 ❒ Cedar Falls, IA (E) (319) 277-2401 ❒ Charlotte, NC (G) (704) 392-1164 ❒ Dayton, OH (I) (937) 294-6856 ❒ Lumberton, NC (K) (910) 738-6190 ❒ Nashville, TN (M) (615) 726-0177 ❒ Pontiac, MI (O) (248) 332-1940 ❒ Rockford. Il (Q) (815) 874-2171
❒ Atlanta, GA (B) (770) 368-0636 ❒ Brighton, CO (D) (303) 659-0497 ☒ Charleston, SC (F) (843) 849-6550 ❒ Columbia, SC (H) (803) 796-8989 ❒ Davenport. IA (J) (319) 323-7944 ❒ Indianapolis, IN (L) (317) 842-4261 ❒ Macon, GA (N) (912) 757-0811 ❒ Orlando, FL (P) (407) 851-2560 ❒ Watertown, WI (R) (920) 261-1660

Client: ERM	Project No.: 9489
Report Address: 498 Wando Pk. Blvd. Mt. Pleasant, SC 29464	Invoice Address: Same
Attn: Dave Maxam	Attn: D. Maxam
Phone No.: (843) 856-4270	Sampled By: D. Maxam/J.P.
Fax No.: (843) 856-4283	P.O. No:
	Quote No.
TURNAROUND TIME	State Samples Collected SC
☒ Standard	
❒ Rush (surcharges may apply)	Date Needed: 9/3/99

157983 **REQUESTED PARAMETERS**

8424 EPA 8260 (3x40ml)

Is this work being conducted for regulatory compliance monitoring? Yes___ No X

Is this work being conducted for regulatory enforcement action? Yes___ No X

Which regulations apply:
RCRA___ NPDESWastewater___
UST___ Drinking Water___
Other___ None___

Sample ID	Date	Time	Comp (C) Grab (G)	Matrix	Lab Use	8424	# and type of containers: HCl	NaOH	HNO_3	H_2SO_4	Other	None	REMARKS
GW-1	8/25	16:20	G	W	132589	X	X						
GW-2		17:10	"	"	85	X	X						
GW-3		17:30	"	"	86	X	X						
GW-4		17:50	"	"	87	X	X						
GW-8	8/26	0920	G	W	88	X	X						
GW-9	"	0940	"	"	89	X	X						
GW-10	"	1010	"	"	90	X	X						
GW-12	"	1100	"	"	91	X	X						
GW-7	"	1330	"	"	92	X	X						
GW-6	"	1400	"	"	132593	X	X						

QC Deliverables: ❒ None ❒ Level 2 - Batch QC ❒ Level 3 ❒ Level 4 ❒ Other

Init Lab Temp: 4°C Rec Lab Temp

COMMENTS: shipped FedEx to Spec. Assays Airbill #813858487425

Relinquished By: Dave Maxam	8/27/99	0945	Received By:	8/27/99	0945
Relinquished By: D Bradsford	8/27/99	1510	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	8/28/99	0900

LAB USE ONLY:

Custody Seal: ❒ Yes ❒ No ❒ N/A

Bottles Supplied by TA: ❒ Yes ❒ No

Chain of Custody Record

TESTAMERICA INC.

4 0 7 2 1 Page 1 of 1

❒ Asheville, NC (A) (828) 254-5169 ❒ Bartlett, IL (C) (630) 289-3100 ❒ Cedar Falls, IA (E) (319) 277-2401 ❒ Charlotte, NC (G) (704) 392-1164 ❒ Dayton, OH (I) (937) 294-6856 ❒ Lumberton, NC (K) (910) 738-6190 ❒ Nashville, TN (M) (615) 726-0177 ❒ Pontiac, MI (O) (248) 332-1940 ❒ Rockford. Il (Q) (815) 874-2171

❒ Atlanta, GA (B) (770) 368-0636 ❒ Brighton, CO (D) (303) 659-0497 X Charleston, SC (F) (843) 849-6550 ❒ Columbia, SC (H) (803) 796-8989 ❒ Davenport. IA (J) (319) 323-7944 ❒ Indianapolis, IN (L) (317) 842-4261 ❒ Macon, GA (N) (912) 757-0811 ❒ Orlando, FL (P) (407) 851-2560 ❒ Watertown, WI (R) (920) 261-1660

Client: ERM	Project No.: 9489
Report Address: 498 Wando Pk. Blvd. Mt. Pleasant, SC 29464	Invoice Address: Same
Attn: Dave Maxam	Attn: D. Maxam
Phone No.: (843) 856-4270	Sampled By: D. Maxam
Fax No.: (843) 856-4283	P.O. No:
	Quote No.
	State Samples Collected SC

TURNAROUND TIME

X Standard

❒ Rush (surcharges may apply) Date Needed: 9/3/99

REQUESTED PARAMETERS

EPA 8260 (3x40ml)

Is this work being conducted for regulatory compliance monitoring? Yes___ No X

Is this work being conducted for regulatory enforcement action? Yes___ No X

Which regulations apply:
RCRA___ NPDES Wastewater___
UST___ Drinking Water___
Other___ None___

Sample ID	Date	Time	Comp (C) Grab (G)	Matrix	Lab Use	EPA 8260 (3x40ml)	# and type of containers: HCl	NaOH	HNO_3	H_2SO_4	Other	None	REMARKS
GW-13	8/26/99	1500	G	W	132554	X	X						

QC Deliverables: ❒ None ❒ Level 2 - Batch QC ❒ Level 3 ❒ Level 4 ❒ Other

Init Lab Temp

Rec Lab Temp

COMMENTS: shipped FedEx to Spec Assays Airbill #813858487425

Relinquished By: Dave Maxam	8/27/99 0945	Received By:	8/27/99 0945	LAB USE ONLY:	
Relinquished By:	8/27/99 1500	Received By:	Date Time		
Relinquished By:	Date Time	Received By:	Date Time	Custody Seal: ❒Yes ❒No ❒N/A	
	Date Time		Date Time	Bottles Supplied by TA: ❒Yes ❒No	

Appendix D
Monitoring Well Laboratory Analytical Data

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

ERM - SOUTHEAST 6486
RON YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Project: 9489
Project Name:
Sampler: DAVE MAXAM

Lab Number: 99-A136516
Sample ID: MW-1
Sample Type: Water
Site ID:

Date Collected: 9/ 1/99
Time Collected: 9:45
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Benzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Bromobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Bromochloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Bromoform	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Bromomethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
2-Butanone	ND	ug/l	10.0	10.0	1	9/ 9/99	22:24	C. Wani	8260B	231
n-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
t-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Carbon disulfide	10.6	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Chlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Chloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Chloroform	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Chloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Dibromochloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Dibromomethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2-Dichloroethane	3.1	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,1-Dichloroethene	22.5	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
cis-1,2-Dichloroethene	12000	ug/l	1000	2.0	500	9/10/99	22:20	C. Wani	8260B	231
trans-1,2-Dichloroethene	40.6	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136516
Sample ID: MW-1

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Ethylbenzene	1360	ug/l	100.	2.0	50	9/10/99	21:44	C. Wani	8260B	231
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
2-Hexanone	ND	ug/l	10.0	10.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Isopropylbenzene	14.1	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
4-Methyl-2-pentanone	17.3	ug/l	10.0	10.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Methylene chloride	ND	ug/l	10.0	10.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Naphthalene	11.9	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
n-Propylbenzene	21.7	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Styrene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Tetrachloroethene	78.5	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Toluene	685.	ug/l	100.	2.0	50	9/10/99	21:44	C. Wani	8260B	231
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Trichloroethene	68.2	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,2,4-Trimethylbenzene	178.	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
1,3,5-Trimethylbenzene	31.2	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Vinyl chloride	49.1	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Xylenes	5820	ug/l	100.	2.0	50	9/10/99	21:44	C. Wani	8260B	231
Dibromodichloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	22:24	C. Wani	8260B	231

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	106.	60. - 138.
VOA Surr, Toluene d8	98.	80. - 123.
VOA Surr, 4-BFB	101.	73. - 122.
VOA Surr, DBFM	108.	74. - 133.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136516
Sample ID: MW-1

Report Approved By: Eric Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

ERM - SOUTHEAST 6486
RON YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Lab Number: 99-A136517
Sample ID: MW-1D
Sample Type: Water
Site ID:

Date Collected: 9/ 1/99
Time Collected: 9:55
Date Received: 9/ 4/99
Time Received: 9:00

Project: 9489
Project Name:
Sampler: DAVE MAXAM

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Benzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Bromobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Bromochloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Bromoform	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Bromomethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
2-Butanone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:01	C. Wani	8260B	231
n-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
t-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Carbon disulfide	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Chlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Chloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Chloroform	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Chloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Dibromochloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Dibromomethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136517
Sample ID: MW-1D

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Ethylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
2-Hexanone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Isopropylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Methylene chloride	ND	ug/l	10.0	10.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Naphthalene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
n-Propylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Styrene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Tetrachloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Toluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Trichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Vinyl chloride	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Xylenes	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Bromodichloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:01	C. Wani	8260B	231

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	108.	60. - 138.
VOA Surr, Toluene d8	98.	80. - 123.
VOA Surr, 4-BFB	99.	73. - 122.
VOA Surr, DBFM	110.	74. - 133.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136517
Sample ID: MW-1D

Report Approved By: Eric S Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

:RM - SOUTHEAST 6486
:ON YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Project: 9489
'roject Name:
Sampler: DAVE MAXAM

Lab Number: 99-A136518
Sample ID: MW-2
Sample Type: Water
Site ID:

Date Collected: 9/ 1/99
Time Collected: 11:00
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Benzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Bromobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Bromochloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Bromoform	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Bromomethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
2-Butanone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:38	C. Wani	8260(	231
n-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
t-Butylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Carbon disulfide	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Chlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Chloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Chloroform	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Chloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Dibromochloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Dibromomethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260(	231

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A13651B
Sample ID: MW-2

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Ethylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
2-Hexanone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Isopropylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Methylene chloride	ND	ug/l	10.0	10.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Naphthalene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
n-Propylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Styrene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Tetrachloroethene	6.9	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Toluene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Trichloroethene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Vinyl chloride	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Xylenes	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Bromodichloromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	9/ 9/99	23:38	C. Wani	8260B	231

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCB, d4	108.	60. - 138.
VOA Surr, Toluene d8	98.	80. - 123.
VOA Surr, 4-BFB	98.	73. - 122.
VOA Surr, DBFM	110.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136518
Sample ID: MW-2

Report Approved By: Eric S. Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

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2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

:RM - SOUTHEAST 6486
:ON YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Project: 9489
'roject Name:
Sampler: DAVE MAXAM

Lab Number: 99-A136522
Sample ID: MW-2D
Sample Type: Water
Site ID:

Date Collected: 9/ 3/99
Time Collected: 11:00
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
»VOLATILE ORGANICS«										
Acetone	ND	ug/l	10.0	10.0	1	9/10/99	2:05	C. Wani	8260B	231
Benzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Bromobenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Bromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Bromoform	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Bromomethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
2-Butanone	ND	ug/l	10.0	10.0	1	9/10/99	2:05	C. Wani	8260B	231
n-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
t-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Carbon disulfide	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Chlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Chloroethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Chloroform	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Chloromethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	9/10/99	2:05	C. Wani	8260B	231
Dibromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Dibromomethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136522
Sample ID: MW-2D

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Ethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
2-Hexanone	ND	ug/l	10.0	10.0	1	9/10/99	2:05	C. Wani	8260B	231
Isopropylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	9/10/99	2:05	C. Wani	8260B	231
Methylene chloride	ND	ug/l	10.0	10.0	1	9/10/99	2:05	C. Wani	8260B	231
Naphthalene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
n-Propylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Styrene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Tetrachloroethene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Toluene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Trichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Vinyl chloride	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Xylenes	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Dibromodichloromethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	2:05	C. Wani	8260B	231

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	110.	60. - 138.
VOA Surr, Toluene d8	99.	80. - 123.
VOA Surr, 4-BFB	97.	73. - 122.
VOA Surr, DBFM	112.	74. - 133.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136522
Sample ID: MW-2D

Report Approved By: Eric S Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

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2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

ERM - SOUTHEAST 6486
RON YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Lab Number: 99-A136519
Sample ID: MW-3
Sample Type: Water
Site ID:

Project: 9489
Project Name:
Sampler: DAVE MAXAM

Date Collected: 9/ 1/99
Time Collected: 15:25
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS*										
Acetone	ND	ug/l	10.0	10.0	1	9/10/99	0:15	C. Wani	8260B	231
Benzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Bromobenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Bromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Bromoform	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Bromomethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
2-Butanone	ND	ug/l	10.0	10.0	1	9/10/99	0:15	C. Wani	8260B	231
n-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
t-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Carbon disulfide	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Chlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Chloroethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Chloroform	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Chloromethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	9/10/99	0:15	C. Wani	8260B	231
Dibromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Dibromomethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
cis-1,2-Dichloroethene	11.4	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136519
Sample ID: MW-3

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Ethylbenzene	250.	ug/l	200.	2.0	100	9/10/99	22:57	C. Wani	8260B	231
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
2-Hexanone	ND	ug/l	10.0	10.0	1	9/10/99	0:15	C. Wani	8260B	231
Isopropylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	9/10/99	0:15	C. Wani	8260B	231
Methylene chloride	ND	ug/l	10.0	10.0	1	9/10/99	0:15	C. Wani	8260B	231
Naphthalene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
n-Propylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Styrene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Tetrachloroethene	4700	ug/l	200.	2.0	100	9/10/99	22:57	C. Wani	8260B	231
Toluene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Trichloroethene	34.2	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Vinyl chloride	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Xylenes	1480	ug/l	200.	2.0	100	9/10/99	22:57	C. Wani	8260B	231
Bromodichloromethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	0:15	C. Wani	8260B	231

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	107.	60. - 138.
VOA Surr, Toluene d8	98.	80. - 123.
VOA Surr, 4-BFB	101.	73. - 122.
VOA Surr, DBFM	110.	74. - 133.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136519
Sample ID: MW-3

Report Approved By: Eric Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

ERM - SOUTHEAST 6486
RON YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Project: 9489
Project Name:
Sampler: DAVE MAXAM

Lab Number: 99-A136521
Sample ID: MW-3D
Sample Type: Water
Site ID:

Date Collected: 9/ 3/99
Time Collected: 10:20
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
»VOLATILE ORGANICS«										
Acetone	ND	ug/l	10.0	10.0	1	9/10/99	20:30	C. Wani	8260B	231
Benzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Bromobenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Bromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Bromoform	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Bromomethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
2-Butanone	ND	ug/l	10.0	10.0	1	9/10/99	20:30	C. Wani	8260B	231
n-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
t-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Carbon disulfide	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Chlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Chloroethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Chloroform	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Chloromethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	9/10/99	20:30	C. Wani	8260B	231
Dibromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Dibromomethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
cis-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136321
Sample ID: MW-3D

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Ethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
2-Hexanone	ND	ug/l	10.0	10.0	1	9/10/99	20:30	C. Wani	8260B	231
Isopropylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	9/10/99	20:30	C. Wani	8260B	231
Methylene chloride	ND	ug/l	10.0	10.0	1	9/10/99	20:30	C. Wani	8260B	231
Naphthalene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
n-Propylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Styrene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Tetrachloroethene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Toluene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Trichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Vinyl chloride	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Xylenes	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Dronodichloromethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	20:30	C. Wani	8260B	231

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	107.	60. - 138.
VOA Surr, Toluene d8	99.	80. - 123.
VOA Surr, 4-BFB	98.	73. - 122.
VOA Surr, DBFM	110.	74. - 133.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136521
Sample ID: MW-3D

Report Approved By: Eric S. Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

ERM - SOUTHEAST 6486
RON YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Project: 9489
Project Name:
Sampler: DAVE MAXAM

Lab Number: 99-A136520
Sample ID: MW-4
Sample Type: Water
Site ID:

Date Collected: 9/ 1/99
Time Collected: 15:35
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Acetone	ND	ug/l	10.0	10.0	1	9/10/99	19:52	C. Wani	8260B	231
Benzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Bromobenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Bromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Bromoform	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Bromomethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
2-Butanone	ND	ug/l	10.0	10.0	1	9/10/99	19:52	C. Wani	8260B	231
n-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
sec-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
t-Butylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Carbon disulfide	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Carbon tetrachloride	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Chlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Chloroethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
2-Chloroethylvinylether	ND	ug/l	5.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Chloroform	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Chloromethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
2-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
4-Chlorotoluene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2-Dibromo-3-chloropropane	ND	ug/l	10.0	10.0	1	9/10/99	19:52	C. Wani	8260B	231
Dibromochloromethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2-Dibromoethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Dibromomethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,3-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,4-Dichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Dichlorodifluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,1-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2-Dichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,1-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
cis-1,2-Dichloroethene	2.9	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
trans-1,2-Dichloroethene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,3-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
2,2-Dichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,1-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136320
Sample ID: MW-4

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
cis-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
trans-1,3-Dichloropropene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Ethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Hexachlorobutadiene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
2-Hexanone	ND	ug/l	10.0	10.0	1	9/10/99	19:52	C. Wani	8260B	231
Isopropylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
4-Isopropyltoluene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
4-Methyl-2-pentanone	ND	ug/l	10.0	10.0	1	9/10/99	19:52	C. Wani	8260B	231
Methylene chloride	ND	ug/l	10.0	10.0	1	9/10/99	19:52	C. Wani	8260B	231
Naphthalene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
n-Propylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Styrene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,1,1,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,1,2,2-Tetrachloroethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Tetrachloroethene	2.4	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Toluene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2,3-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2,4-Trichlorobenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,1,1-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,1,2-Trichloroethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Trichloroethene	7.4	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2,3-Trichloropropane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,2,4-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
1,3,5-Trimethylbenzene	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Vinyl chloride	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Xylenes	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Bromodichloromethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231
Trichlorofluoromethane	ND	ug/l	2.0	2.0	1	9/10/99	19:52	C. Wani	8260B	231

ND = Not detected at the report limit.

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCA, d4	106.	60. - 138.
VOA Surr, Toluene d8	99.	80. - 123.
VOA Surr, 4-BFB	97.	73. - 122.
VOA Surr, DBFM	112.	74. - 133.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136520
Sample ID: MW-4

Report Approved By:  Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

Chain of Custody Record — TestAmerica Inc. — Page - of -

☐ Asheville, NC (A) (828) 254-5169	☐ Bartlett, IL (C) (630) 289-3100	☐ Cedar Falls, IA (E) (319) 277-2401	☐ Charlotte, NC (G) (704) 392-1164	☐ Dayton, OH (I) (937) 294-6856	☐ Lumberton, NC (K) (910) 738-6190	☐ Nashville, TN (M) (615) 726-0177	☐ Pontiac, MI (O) (248) 332-1940	☐ Rockford, Il (Q) (815) 874-2171
☐ Atlanta, GA (B) (770) 368-0636	☐ Brighton, CO (D) (303) 659-0497	☐ Charleston, SC (F) (843) 849-6550	☐ Columbia, SC (H) (803) 796-8989	☐ Davenport, IA (J) (319) 323-7944	☐ Indianapolis, IN (L) (317) 842-4261	☐ Macon, GA (N) (912) 757-0811	☐ Orlando, FL (P) (407) 851-2560	☐ Watertown, WI (R) (920) 261-1660

Client: ERM	Project No.: 9489
Report Address: 498 Wando Park Blvd, Mt. Pleasant, SC 29464	Invoice Address: Same
Attn: Dave Maxam	Attn: Dave Maxam
Phone No.: (843)856-4270	Sampled By: Dave Maxam
Fax No.: (843)856-4283	P.O. No:
	Quote No.
	State Samples Collected SC

TURNAROUND TIME

☒ Standard

☐ Rush (surcharges may apply) Date Needed: _____

REQUESTED PARAMETERS

159063 #6 486

EPA 8260 (3x40ml) — PAH's

Is this work being conducted for regulatory compliance monitoring? Yes___ No X

Is this work being conducted for regulatory enforcement action? Yes___ No X

Which regulations apply:
RCRA____ NPDESWastewater____
UST____ Drinking Water____
Other___ None____

Sample ID	Date	Time	Comp (C) Grab (G)	Matrix	Lab Use	# and type of containers						REMARKS
MW-1	9/1/99	0945	G	W	136516	3						
MW-1D	"	0955	G	W	17	3						
MW-2	"	1100	G	W	136518	3						
HA-1	"	1208	G	S	136514		1					
HA-2	"	1227	G	S	136515		1					
MW-3	"	1525	G	W	136519	3						
MW-4	"	1555	G	W	20	3						
MW-3D	9/8/99	1020	G	W	21	3						
MW-2D	"	1100	G	W	136522	3						

HCl	NaOH	HNO_3	H_2SO_4	Other	None
X					
X					
X					
					X
					X
X					
X					
X					
X					

QC Deliverables: ☐ None ☐ Level 2 - Batch QC ☐ Level 3 ☐ Level 4 ☐ Other

Init Lab Temp | Rec Lab Temp

COMMENTS: 4.

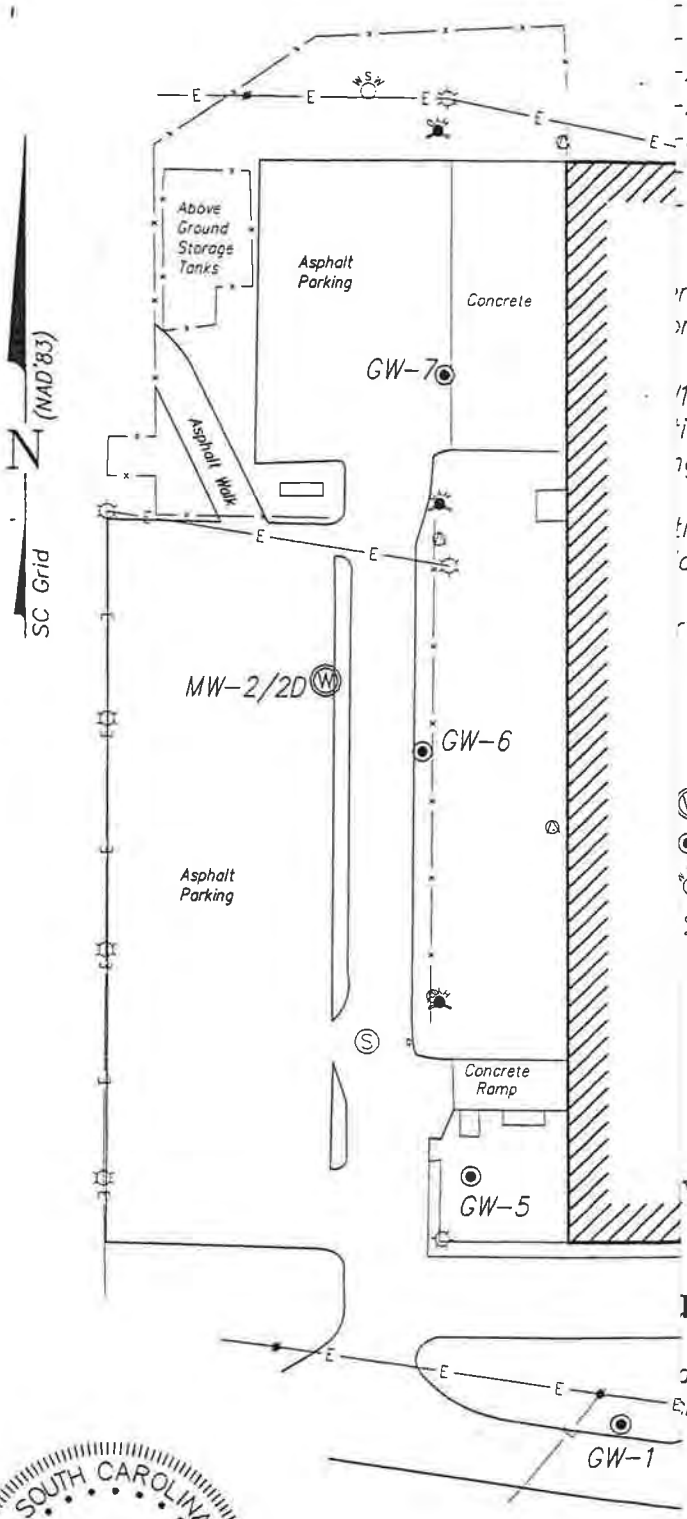
Relinquished By: Dave Maxam	Date 9/3/99	Time 1600	Received By: M. Beardsley	Date 9/4/99	Time 9:00
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time

LAB USE ONLY:

Custody Seal: ☐ Yes ☐ No ☐ N/A

Bottles Supplied by TA: ☐ Yes ☐ No

Appendix E
Survey Map



	Top of Casing	Gnd.
-1	281.95	279.0
-1D	281.94	279.0
-2	274.03	274.4
-2D	274.14	274.4
-3	279.55	276.8
-3D	279.80	276.8
-4	279.70	276.8

Geoprobe	Gnd.
GW-1	276.8
GW-2	277.8
GW-3	277.7
GW-4	277.5
GW-5	277.3
GW-6	276.5
GW-7	275.6
GW-8	277.1
GW-9	276.2
GW-10	275.5
GW-11	277.9
GW-12	278.7
GW-13	277.8

rtical Datum : NAVD '88
rizontal Datum : NAD '83

1
itude N 33°21'22.1"
ngitude W 81°16'39.7"

itude/Longitude established from SCGS Monument
ackville Reset" with Leica SR9500 GPS (±2cm).
Grid Azimuth established from solar observation.
rtical established from SCGS Monument "BW 70"
conventional leveling.

Legend:

- Monitoring Well
- Geoprobe
- Water Supply Well
- Fire Hydrant
- Post Indicator Valve
- Light Pole
- Overhead Electric
- Manhole
- Catch Basin
- Fence

Map Prepared For:

vironmental Resources Manangement

icane Company Site

ated off U.S. Highway 78,
kville, Barnwell County, South Carolina

SOUTH CAROLINA SURVEY & MAPPING SERVICES, INC. NO. C 00468 CERTIFICATE OF AUTHORIZATION

Dale C. Swygert SC RLS 10039

100 0 100 2

Scale : 1" = 100'

d
170

Project No.: 99046
Drawn By : Swygert/Miller
Date : 9/14/99
Revised :

Appendix F
Naphta Spill Cleanup Analytical Data

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

ERM - SOUTHEAST 6486
ION YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Project: 9489
Project Name:
Sampler: DAVE MAXAM

Lab Number: 99-A136514
Sample ID: HA-1
Sample Type: Soil
Site ID:

Date Collected: 9/ 1/99
Time Collected: 12:08
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Naphthalene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Acenapthene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Anthracene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Fluoranthene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Fluorene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Pyrene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Benzo(a)anthracene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Benzo(a)pyrene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Benzo(b)Fluoranthene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Benzo(k)Fluoranthene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Chrysene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Dibenzo(a,h)anthracene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Indeno(1,2,3-cd)pyrene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Acenapthylene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Benzo(g,h,i)perylene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935
Phenanthrene	ND	ng/kg	0.066	0.066	1	9/11/99	21:50	J.Gott	8270C	935

ND = Not detected at the report limit.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Analyst	Method
BNA's	29.5 gm	1.0 ml	9/ 8/99	M. Cauthen	3550

Surrogate	% Recovery	Target Range
surr-Nitrobenzene-d5	86.	20. - 110.
surr-2-Fluorobiphenyl	74.	18. - 110.
surr-Terphenyl d14	88.	27. - 128.

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136514
Sample ID: HA-1

Report Approved By: Eric S Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

SPECIALIZED ASSAYS, INC.
2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

ERM - SOUTHEAST 6486
ION YARBOUROGH
498 WANDO PARK RD. Suite 100
MT. PLEASANT, SC 29464

Project: 9489
Project Name:
Sampler: DAVE MAXAM

Lab Number: 99-A136515
Sample ID: HA-2
Sample Type: Soil
Site ID:

Date Collected: 9/ 1/99
Time Collected: 12:27
Date Received: 9/ 4/99
Time Received: 9:00

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Batch
ORGANIC PARAMETERS										
Naphthalene	0.231	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Acenapthene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Anthracene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Fluoranthene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Fluorene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Pyrene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Benzo(a)anthracene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Benzo(a)pyrene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Benzo(b)fluoranthene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Benzo(k)fluoranthene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Chrysene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Dibenzo(a,h)anthracene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Acenapthylene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Benzo(g,h,i)perylene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935
Phenanthrene	ND	mg/kg	0.066	0.066	1	9/12/99	2:37	J.Gott	8270C	935

ND = Not detected at the report limit.

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Analyst	Method
BNA's	30.2 gm	1.0 ml	9/ 8/99	M. Cauthen	3550

Surrogate	% Recovery	Target Range
surr-Nitrobenzene-d5	71.	20. - 110.
surr-2-Fluorobiphenyl	65.	18. - 110.
surr-Terphenyl d14	76.	27. - 128.

SPECIALIZED ASSAYS, INC.

2960 Foster Creighton Dr.
P.O. Box 40566
Nashville, TN 37204-0566
Phone 1-615-726-0177

ANALYTICAL REPORT

Laboratory Number: 99-A136515
Sample ID: HA-2

Report Approved By: Eric S Smith Report Date: 9/13/99

Theodore J. Duello, Ph.D., Lab Director
Michael H. Dunn, M.S., Technical Director
Johnny A. Mitchell, Dir. Technical Services
Eric Smith, Assistant Technical Director
Gail A Lage, Technical Services

Laboratory Certification Number: 84009

Chain of Custody Record

TESTAMERICA INC.

Page ____ of ____

❒ Asheville, NC (A) (828) 254-5169 ❒ Bartlett, IL (C) (630) 289-3100 ❒ Cedar Falls, IA (E) (319) 277-2401 ❒ Charlotte, NC (G) (704) 392-1164 ❒ Dayton, OH (I) (937) 294-6856 ❒ Lumberton, NC (K) (910) 738-6190 ❒ Nashville, TN (M) (615) 726-0177 ❒ Pontiac, MI (O) (248) 332-1940 ❒ Rockford. Il (Q) (815) 874-2171
❒ Atlanta, GA (B) (770) 368-0636 ❒ Brighton, CO (D) (303) 659-0497 ❒ Charleston, SC (F) (843) 849-6550 ❒ Columbia, SC (H) (803) 796-8989 ❒ Davenport. IA (J) (319) 323-7944 ❒ Indianapolis, IN (L) (317) 842-4261 ❒ Macon, GA (N) (912) 757-0811 ❒ Orlando, FL (P) (407) 851-2560 ❒ Watertown, WI (R) (920) 261-1660

Client: ERM	Project No.: 9489
Report Address: 498 Wando Park Blvd, Mt. Pleasant, SC 29464	Invoice Address: Same
Attn: Dave Maxam	Attn: Dave Maxam
Phone No.: (843)856-4270	Sampled By: Dave Maxam
Fax No.: (843)856-4283	P.O. No:
	Quote No.
	State Samples Collected SC

TURNAROUND TIME
☒ Standard
❒ Rush (surcharges may apply) Date Needed: ____

REQUESTED PARAMETERS

159063 #6 446

EPA 8260 (3x40ml)
PAH's

Is this work being conducted for regulatory compliance monitoring? Yes___ No X

Is this work being conducted for regulatory enforcement action? Yes___ No X

Which regulations apply:
RCRA____ NPDES Wastewater____
UST____ Drinking Water____
Other____ None____

Sample ID	Date	Time	Comp (C) Grab (G)	Matrix	Lab Use	EPA 8260 (3x40ml)	PAH's	# and type of containers: HCl	NaOH	HNO_3	H_2SO_4	Other	None	REMARKS
MW-1	9/1/99	0945	G	W	136516	3		X						
MW-1D	"	0955	G	W	117	3		X						
MW-2	"	1100	G	W	136518	3		X						
HA-1	"	1208	G	S	136514		1						X	
HA-2	"	1227	G	S	136515		1						X	
MW-3	"	1525	G	W	136519	3		X						
MW-4	"	1555	G	W	120	3		X						
MW-3D	9/8/99	1020	G	W	121	3		X						
MW-2D	"	1100	G	W	136522	3		X						

QC Deliverables: ❒ None ❒ Level 2 - Batch QC ❒ Level 3 ❒ Level 4 ❒ Other

Init Lab Temp | Rec Lab Temp

COMMENTS: 4.

Relinquished By: Dave Maxam	Date 9/3/99	Time 1600	Received By: M. Beasley	Date 9/4/99	Time 9:00
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time

LAB USE ONLY:

Custody Seal: ❒ Yes ❒ No ❒ N/A
Bottles Supplied by TA: ❒ Yes ❒ No