

SITE INVESTIGATION PHASE II VAUGHN LANDFILL/DUKE POWER SITES CSXT REAL PROPERTIES BRAMLETTE ROAD GREENVILLE, SOUTH CAROLINA

CSX Project Number 9415585

Prepared for



Jacksonville, Florida

September 1996



APPLIED ENGINEERING & SCIENCE, INC.

Atlanta, Georgia

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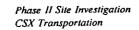
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AES August 1996

EXECUTIVE SUMMARY

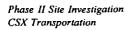
CSX Transportation (CSXT) currently owns several adjoining properties west of downtown Greenville, South Carolina. The properties consist of approximately 40 acres along the floodplain of the Reedy River. Past activities on the properties include coal gas production, railroad transportation, and landfilling. These activities, particularly coal gasification processes, have contributed a variety of contaminants that have impacted soil and groundwater in the area.

In 1994, at the direction of the South Carolina Department of Health and Environmental Control (DHEC), CSXT began an investigation into the types and extent of contamination on the CSXT properties. CSXT retained Applied Engineering and Science, Inc. (AES), an Atlanta, Georgia engineering and environmental consulting firm, to proceed with the investigation. This report describes AES's Phase I and Phase II field activities, historical research, interface with regulatory agencies, scientific literature review, and personal interviews.

Mr. Robert Vaughn, owner of Vaughn Construction and Demolition Company in Greenville, operated an unpermitted solid waste landfill on CSXT property from 1988 to 1992. Mr. Vaughn was advised in 1993 by DHEC that his filling activities were improper. In February 1994 the U.S. Army Corps of Engineers notified CSXT that it considered the property on which the fill was located to be wetlands and that the filling operation was a violation of section 301 of the Clean Water Act. The Corps of Engineers has deferred further action pending the environmental investigation required by DHEC.

AES completed Phase I of the investigation in February 1995 and submitted a report of findings to DHEC in March 1995. During Phase I, no materials were discovered in the landfill that could be directly connected to the contamination. Rather, Phase I confirmed that the fill consisted of dirt, brick, concrete, and other construction debris. Contamination from volatile and semi-volatile compounds (VOCs and SVOCs) was discovered in soils and groundwater below the landfill materials and in the floodplain east of the Reedy River. A substance that appeared to be coal tar was found in the floodplain soils. A subsequent investigation into the historical activities of the area indicated that the Duke Power Company operated a coal gasification plant at the corner of West Washington Street and Bramlette Road during the 1940s and 1950s. Wastewater containing coal tar was released from the west side of the plant. The wastewater flowed through a culvert under Bramlette Road and dispersed into the floodplain. The heavy coal tar settled in low





areas and eventually infiltrated the natural alluvial clays and sands, impacting local groundwater quality.

Following submittal of the Phase I report, DHEC requested additional fieldwork on the properties. Phase II consisted of the installation of eight monitoring wells to assess groundwater quality, an assessment of the extent of the coal tar in soil and groundwater, and a site characterization.

The information gathered during Phase II of the investigation indicates that the contaminants in soil and groundwater within the CSXT properties are the result of the release of coal tar and coal tar laden wastewater from the former Duke Power coal gasification plant. The VOC and SVOC compounds reported in the groundwater and soil samples are common byproducts of coal gasification processes.

Coal tar was found saturating soils within the former Duke Power Company plant site (DP Site) and in the floodplain west of the landfill. Soils saturated with coal tar on the DP Site will continue to affect groundwater quality and air quality to a lesser extent.

Impacted groundwater was identified from the coal gasification plant west to the Reedy River in a plume approximately 600 feet wide and 2,200 feet long. However, maximum contaminant levels (MCLs) were exceeded by a single contaminant (benzene) in only three of the eight wells. The groundwater plume appears to reach the Reedy River and may be discharging to the river. However, a surface water sample collected downstream of the contaminant plume contained no VOC or SVOC compounds. No downstream users of Reedy River water were identified, and a well survey found no drinking water wells within a 1/2 mile radius of the CSXT properties. No other contaminant pathways were identified for contaminants to migrate off site.

Free product coal tar was discovered in the deepest well (20 feet) lying on top of a lowpermeability layer of saprolite. Because the free product coal tar in soil and groundwater will continue to release volatile and semi-volatile compounds to groundwater, it is recommended that the extent of free product in groundwater be delineated.

An underground storage tank (UST) and an industrial water supply well were reported to have been used at the coal gasification plant. The disposition of the UST should be determined. Geophysical methods may be used to determine whether the UST was removed or remains in place. The well is listed as abandoned. The location and condition of the well should be determined because it could provide a pathway for surface contamination into the subsurface.



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I. INTRODUCTION

CSX Transportation, Inc. holds title to several properties west of downtown Greenville, South Carolina in the vicinity of Bramlette Road along the Reedy River. In 1994, at the direction of the South Carolina Department of Health and Environmental Control (DHEC), CSXT began an investigation into the types and extent of contamination on the properties. CSXT retained Applied Engineering and Science, Inc. (AES), an Atlanta, Georgia engineering and environmental consulting firm, to proceed with the investigation. This report describes activities relative to the site investigation on CSXT properties including Phase I and Phase II field activities, historical research, interface with regulatory agencies, scientific literature review, and personal interviews.

A. Site Description and History

Figures and tables in this report are included in Appendix A. Figure 1 - Site Location Map identifies the location of the property west of the City of Greenville, South Carolina. This section of Greenville (known locally as City View) includes residences, small businesses, schools, industries, and rail facilities.



Figure 2 - Site Plan is a drawing of CSXT properties north and south of Bramlette Road totalling approximately 40 acres. The properties are undeveloped except for the CSX Railroad office which is situated on the south side of Bramlette Road at the Reedy River.

The triangular property north of Bramlette Road is bordered by Bramlette Road to the south, West Washington Street to the east, and the CSX right-of-way containing the rail lines to the west. Duke Power Company, the primary electric utility provider in South Carolina, operated a coal gasification plant in the southeast corner of this property during the 1940s and 1950s. This area is referred to as the **DP Site** in this document. West of the DP Site, the property has been partially filled west to the rail lines and is overgrown with kudzu and small trees. This area contains a ditch along Bramlette Road that reportedly carried wastewater released from the coal gasification plant. This area is referred to as the **NB Site** (North Bramlette) within this document.

South of Bramlette Road, a long, narrow piece of property extends south through floodplain of the Reedy River. This property is bordered by the CSX right-of-way to the west, Greenville County School District property to the east; and Willard Street to the south. The CSX railroad office, which is used for crew transfers and scheduling activities, is located in the northwest corner of this property.

An unpermitted landfill was operated by Vaughn Demolition and Construction Company in the property south of Bramlette Road from 1988 to 1992. In 1988, Mr. Robert Vaughn attempted to purchase approximately 16 acres of the property from CSXT for the purpose of constructing a solid waste landfill. Following the payment of a deposit on the purchase, Mr. Vaughn began landfilling activities on the Site. The property transfer was never completed but unauthorized landfilling by Vaughn continued. This property is

referred to as the Vaughn Landfill Site in this document.

The CSXT properties north and south of Bramlette Road contain the DP Site, the NB Site, and the Vaughn Landfill Site which were the focus of this investigation.

B. Project History

On August 24, 1994, DHEC notified CSXT by certified mail of the department's investigation of an unpermitted landfill on CSXT property in Greenville, South Carolina (Vaughn Landfill Site). DHEC, along with the US Army Corps of Engineers, had visited the site in early 1994 and noticed leachate and a black, sludge-like material at the base of the landfill. According to the letter "*The material was black with a strong petroleum odor. A similar material has been observed by Department and Corps of Engineers personnel during other site visits*". Analysis of a sample collected during the site visit

indicated that an impact to the environment had occurred. DHEC subsequently requested a work plan from CSXT to assess vertical and horizontal impact to the environment in soil and groundwater caused by the landfilling or other activities.

In October 1994, CSXT contacted AES and requested a workplan be prepared for the assessment of vertical and horizontal impact to the environment at the site.

1. <u>Phase I</u> - A copy of the workplan for Phase I is included in Appendix B. The workplan called for a series of borings to be installed in the landfill to collect soil samples from native soils beneath the fill and groundwater samples from the surficial aquifer. Sediment and surface water samples were also to be collected from the floodplain surrounding the fill. A sample of the black sludge was to be collected and analyzed. Equipment for the sample collection activities included a Strataprobe push-type sampling rig, a trackhoe for excavating impenetrable materials, and hand augers for floodplain sampling.

Approximately seven acres of floodplain of the Reedy River have been filled with demolition debris and yard waste to a depth of up to 14 feet (the Vaughn Landfill). Excavations through the fill and borings advanced through the fill into the underlying native soils revealed the presence of a tar-like substance at the fill/soil

interface. Additional hand auger samples collected in the surrounding floodplain soils also contained tars.

Soil and groundwater samples were collected and sent to a laboratory for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis. Analysis of the samples indicated a band of contamination in soils trending northeast to southwest through the fill. This band extends from the floodplain northeast of the fill through the northern half of the fill material, through the southwest corner of the fill, and into the floodplain southwest of the landfill. Groundwater was encountered at or below the native soil surface. Three groundwater samples contained elevated levels of VOC and SVOC compounds. According to several chemical reference materials, many of the volatile and semi-volatile compounds reported in the samples are found in coal tars generated by coal gasification processes.

Elevated levels of lead were revealed in soil samples throughout the site. Metals levels in soil sample LF024, located in the west central section of the landfill, were especially high relative to other samples collected.

The report of Phase I findings was entitled *Site Investigation; Soil, Sediment, and Groundwater Sampling; Vaughn Landfill, CSX Real Property, AES, March 1995.* Recommendations made following the completion of Phase I included the installation of at least six monitoring wells to assess groundwater quality, excavation of sample location LF024 to investigate the cause of elevated metals concentrations in soils, and the covering of the rear uncovered portion of the landfill materials with clean soil fill.

- 2. <u>Phase II</u> Following the review of the Phase I report, DHEC requested additional assessment of the CSXT properties including the following:
 - 1) Determine the extent of the tar substance.
 - 2) Determine the source of the tar substance.
 - 3) Determine the vertical and horizontal extent of groundwater contamination.
 - 4) Determine pathways of contaminant migration to possible receptors.
 - 5) Assess location LF024 for the source of heavy metals contamination.
 - 6) Develop a site characterization including soils, geology, hydrology, and hydrogeology.

AES prepared a workplan based on the information requested by DHEC and submitted the workplan in August, 1995. DHEC approved the workplan in November, 1995. Copies of the DHEC correspondence are included in Appendix C. A copy of the Phase II workplan is included in Appendix D.

Three days prior to implementation of the workplan and the beginning of field activities, CSXT and AES representatives met with DHEC personnel in Greenville to discuss several issues regarding the site investigation. Those present at the meeting on March 1, 1996 were Marshall Williams, Director Environmental Real Estate Transactions, CSX/RPI; Dave Butler, Project Manager AES; Charles Bristow, Hydrogeologist, DHEC Greenville; and Tom Knight, Manager Geohydrologic Section, DHEC Columbia. Several changes and additions to the Phase II workplan resulted from this meeting that are summarized below:

- DHEC requested that a second monitoring well screened in the upper saturated unit be placed adjacent to MW-3D. MW-3D was scheduled to be screened within the lower sand unit beneath the overlying clay. DHEC suggested that additional information could be gained by placing two wells side-by-side at separate intervals. Placement of the other wells was approved with the understanding that the location of MW-5 was dependent on the results of the coal tar delineation sampling.
- 2) DHEC suggested that MW-4 be advanced by hand auger in the floodplain east of the landfill to avoid disturbance of possible wetland habitat with a full size drill rig.
- 3) DHEC requested that the groundwater samples collected from the wells installed within the landfill be analyzed for sulfate as well as VOCs and SVOCs.

- 4) DHEC suggested that a biological survey be conducted within the floodplain areas affected by coal tar contamination to assess the effects of contaminants on plant species number and diversity.
- 5) DHEC requested that the landfill be reseeded following completion of grading activities to inhibit erosion of the landfill soils into the surrounding floodplain.

CSXT and AES agreed to the above changes but requested additional time to complete items 4 and 5 to allow for scheduling, performance and reporting. DHEC concurred with this request.

Implementation of the workplan began at the Greenville site on March 4, 1996. This report summarizes the findings of the Phase II field activities including well installations, groundwater sampling, site characterization, and a biological survey.

II. SITE CHARACTERIZATION

A. Topography

The city of Greenville lies in the piedmont province of the southeastern United States. The piedmont is characterized by rolling hills, uplands, and stream valleys which contain narrow floodplains. The general flow pattern of streams is to the southeast. Greenville county lies within the Santee River basin which includes several sub-basins such as the Reedy River basin.

The CSXT properties border the Reedy River and lie, to a large extent, within the river's floodplain. The floodplain and potential wetlands (*wetlands on the site have not been formally delineated by the Corps of Engineers*) are at an elevation of 285 feet above mean sea level (msl). Local surface flow is toward the Reedy River. Much of the local floodplain topography has been altered by human activities.

B. Geology and Hydrogeology

Bedrock west of Greenville consists of granite gneiss. Piedmont soils in the southeast commonly form from the deterioration of bedrock by chemical weathering. Saprolite is

the term given to decomposed rock which has not been transported. Rock structures are still visible in saprolite but the texture is similar to that of loose soil. The saprolite is then eroded and deposited forming the alluvial soils along river floodplains. The soils vary from fine to coarse depending on the depositional environment.

According to the *Soil Survey of Greenville County*, prepared by the Soil Conservation Service of the USDA, soils underlying the CSXT properties include Cartecay, Chewacla, and Cecil-Urban series types. Cartecay soils consist of alluvium on floodplains and are usually sandy loams. Chewacla soils are also found on floodplains and consist of the finer deposits of silty clay loams. Chewacla soils are considered hydric which is one characteristic of wetland environments. Cartecay and Chewacla soils are commonly intermixed on floodplains as stream channels migrate and floodwaters rise and recede. The floodplain soils surrounding the landfill south of Bramlette Road are a classic example of this intermixing.

The thickness of the soils and saprolite overlying bedrock in the Greenville area has been reported at an average of 58 feet. The report entitled *Groundwater Resources of Greenville County South Carolina*, published in 1968 by the South Carolina State Development Board, lists seven industrial wells within 1/4 mile of the CSXT properties. All seven of the wells were reported as destroyed or abandoned. The wells were installed

with casings varying in length from 10 feet to 41 feet below the surface. Well casings usually extend from the surface into bedrock to prohibit loose soils from entering the well, so casing length can be an indicator of the thickness of unconsolidated materials. Bedrock at the site is therefore expected to be within 40 feet of the surface. However, no borings were advanced to bedrock during either phase of the investigation. Therefore, the actual depth to bedrock is unknown.

One of the seven industrial wells was located at the Duke Power Site. The well was 298 feet deep in the fractured granite gneiss and yielded 50 gpm. The location of this well and the method of abandonment should be determined to assess whether the well presents a pathway for contaminant migration into the bedrock aquifer.

Near the Reedy River, the water table is close to or above land surface and is visible as surface water south of Bramlette Road. Borings on the CSXT properties indicate the water table to be within five feet of the natural surface. Because of the variation in soil types across the properties from fine-grained clay to coarse grained sands, permeabilities and hydraulic conductivity also vary. Wells installed during the investigation yielded flows of at least 1 gallon per minute (gpm) during development and were not stressed. Water levels were measured and compared to the surveyed top-of-casing elevations and indicate a groundwater flow direction from northeast to southwest toward the Reedy

River. Well installations and the hydrogeology of the site are discussed in more detail in Section V.

C. Surface Flow

During a day of heavy rains, AES personnel followed the paths of surface runoff over the CSXT properties from the DP Site, west along Bramlette Road, through the Vaughn Landfill Site and south through the floodplain to Willard Street and the Reedy River. **Figure 3 - Surface Flow** is a diagram of the overall surface flow patterns as well as localized surface flows and ponding in depressions. Photographs of surface flow patterns are included in **Appendix E**.

 <u>DP Site</u> - The grade of the surrounding area is generally to the southwest with localized variations. Stormwater enters the DP Site from the upgradient direction along West Washington Street and to a lesser degree, from the adjacent property to the north (Suburban Propane). The two primary entry points appear to be at the east gate and north of the east gate approximately 43 feet south of the property boundary. Runoff at the east gate flows west and collects in a depression in the north central portion of the site following heavy rainfall. Soils in this area of the site contain a high proportion of coal tar and vegetation is sparse. Strataprobe and hand auger sampling here revealed water saturated conditions in the upper 1 foot of soil. Standing water in this area is probably common during the winter and early spring.

North of the east gate, runoff flows west from West Washington Street under the fence and into a man-made ditch that carries surface flow toward the north central sector of the site. The ditch contains trash and debris brought in with the stormwaters. Where the ditch ends, the flow spreads laterally and settles in depressions or enters the larger ponded area in the unvegetated section. Because of the site topography, there appears to be no exit from these depressed areas except during exceptionally heavy rainfall at which time flow would be to the southwest. Surface water eventually infiltrates the soil or evaporates.

Precipitation falling on the southeast and south central sectors flows west\southwest and exits at the south gate onto Bramlette Road or settles in a depression near MW-7. This depression also collects surface flow from the northwest sector. Soils surrounding MW-7 contain coal tar but vegetation is present and odors are less apparent than in the northeast sector. Precipitation falling on the extreme southwest corner of the DP Site flows west off the site and enters Ditch 1 which flows west along Bramlette Road.

- 2. <u>NB Site</u> Ditch 1 to the west of the DP Site may be fed by a spring which discharges groundwater from the DP Site and the filled area north of the ditch. Water in the ditch flows west to a point approximately 340 feet from the DP Site fence where the water appears to enter a culvert underneath Bramlette Road. The culvert is not visible because of the overlying sediments and vegetation. Water is visible discharging south of Bramlette Road as an upwelling in the floodplain.
- 3. <u>Vaughn Landfill Site</u> Water discharging in the floodplain south of Bramlette Road spreads south and collects behind the landfill which acts as a dam to the natural flow. Surface flow from the higher elevations to the east also enters this area. A narrow channel (Ditch 4) cut through the landfill allows the water to flow west.

Ditch 2 carries water south from the rail lines north of Bramlette Road into a culvert beneath the road. The water then enters Ditch 3 which runs between the landfill and the filled area which contains the CSX office. Flow from Ditch 3 then enters the floodplain west of the landfill joining the flow of Ditch 4.



CSX Transportation

The floodplain west of the landfill contains standing water for most of the year. Water here is prevented from entering the Reedy River by the elevated embankment which carries the north/south rail lines paralleling the river. However, Ditch 5, which appears to be a man-made canal, directs water from the floodplain south toward Willard Street. Just north of Willard Street, the ditch turns west and passes underneath the railroad trestle where it discharges into the Reedy River. *This appears to be the only discharge point for surface flow from the CSXT properties east of the Reedy River.*

D. Human Activities

Much of the floodplain along the Reedy River has been altered by human activities for many years. Aerial photographs from the 1950s reveal tilled fields for crops along the river. As time passed, industry replaced the crops. Much of the floodplain was filled in the past to accommodate the construction of rail lines, mills, and residences.

The property north of Bramlette Road has been almost completely filled above the original floodplain elevation during activities over the last 100 years. The southeast corner of this property (DP Site) was the site of the Duke Power coal gasification plant which closed in 1959. A trucking company used the lot for parking trailers during the 1970s. The DP

Site is now vacant and access is controlled by a fence topped with barbed wire. North of the coal gas plant, Texas Oil Company operated a petroleum bulking facility at the same time as the coal gas plant operated. That site now contains Suburban Propane, a propane tank storage facility. The remaining property has been filled but is otherwise undeveloped.

South of Bramlette Road, the CSXT property is largely native floodplain and has only recently received fill as the Vaughn landfill was constructed. Adjacent properties east of the landfill were filled for construction of the Greenville Sanitation Commission building and for residences along Temple Street and Walnut Street. A man-made canal (Ditch 5), that may have been dug early this century following construction of the embankment that carries the rail lines, drains the floodplain from north to south. The embankment prevented the natural flow of surface water from the floodplain into the Reedy River and the canal was apparently constructed to direct flow south to a culvert that intersects the Reedy River at Willard Street. The filling of the property has been discontinued. No other activities occur on the site except for the railroad related activities at the CSX office.

E. Biological Survey

A biological survey was requested by DHEC following approval of the original workplan for Phase II of the investigation. The purpose of the survey was to assess the effects of coal tar contaminants on the diversity and number of plant species within the seasonally flooded environment adjacent to the landfill. Soil samples previously collected by AES provided the analytical data necessary to compare plant species diversity to the concentrations of contaminants.

The survey was conducted by the Environmental Corporation of America (ECA) of Alpharetta, Georgia. Five plots were selected within the floodplain west of the Vaughn Landfill. Sample plots were chosen on the basis of soil sample data availability and the similarity of environmental characteristics (sunlight exposure, water depth, water temperature, and plant community structure) between the plots. The plots included drainage channel habitat as well as floodplain habitat. Plant species within each plot were identified and counted.

Following the collection of field data, a series of linear computer models were constructed to determine positive or negative correlations between contaminant concentrations and plant diversity. According to the ECA report, *at a confidence level of 95%, no significant* negative correlations were found to exist between organic compounds in the soils and the prevalence of plants in the sample plots. A positive correlation, however, was found between some species and the presence of organic compounds where these plants were more abundant in plots with contaminated soils.

A copy of the complete ECA report is included in Appendix F - Biological Survey.

III. EXTENT OF COAL TAR

This section describes the horizontal and vertical delineation of the coal tar extent in soils within the DP Site, the NB Site, and the Vaughn Landfill Site. The effects of the coal tar on groundwater are described in Section V.

A. Sample Locations, Sampling Protocol

Sample locations for Phase II were chosen based on the results of the February 1995 Phase I site investigation and historical information related to the operations of the coal gasification plant. Efforts were made to determine the vertical and horizontal extent of the coal tar or other hydrocarbon substances in soils and groundwater.

Soil samples were collected using two methods. Push-type technology (Strataprobe) was used wherever the locations were accessible by the four-wheel drive vehicle. Handaugers were used in less accessible overgrown areas within the DP Site or in the flooded sections of the Vaughn Landfill Site. Continuous samples were collected beginning at the surface until either coal tar was detected or saturated conditions were reached. The depths, soil characteristics, and presence or absence of detectable coal tar were noted in the field logbook. All sample locations were marked with an alpha-numeric designation and flagged stake. Downhole sample equipment was decontaminated between each hole.

Moving outward from obvious or known contamination, samples were collected and field screened visually and by odor. If coal tar was clearly visible or coal tar odor was detected, no sample was collected for laboratory analysis. Exceptions were several samples which were analyzed to assess the concentrations of coal tar compounds within heavily affected areas. If samples exhibited no detectable signs of coal tar or other hydrocarbon, representative soils were placed in clean glass containers for shipment and laboratory analysis to confirm the absence of coal tar substances. Photographs of the soil sampling are included in Appendix E.

B. Duke Power Site

Delineation of the extent of coal tar began at the suspected source; the site of the former Duke Power Company coal gasification plant. **Figure 4 - Duke Power Site Plant Detail** is a diagram of the Duke Power Site based on the drawing provided by Duke Power that indicates the former locations of plant buildings. A reconnaissance of the site revealed large amounts of brick, metal, wood and other construction debris and several concrete and brick foundations. Apparently, the coal gasification plant buildings were demolished and partially buried on site following closure of the plant in 1959.

Brush, small trees, and debris were cleared from several areas to allow access of sampling equipment. The clearing revealed the presence of two heavily stained areas. Figure 5 - Coal Tar Extent; Duke Power Site indicates the two heavily affected areas, the sample locations, and the extent of coal tar. Table 1 on Figure 6 includes a summary of the laboratory analytical results of each sample collected.

The first affected area surrounds MW-7. Soils within a fifty-foot radius of the well are discolored and exhibit a moderate coal tar odor. A split-spoon sample, labeled DP1A, collected during the installation of the monitoring well, was analyzed for VOCs and SVOCs. Laboratory results of DP1A indicated several volatile and semi-volatile compounds including PAHs associated with coal tar with concentrations up to 48,000 ug/kg. According to former employees of the coal gasification plant and the detail of the plant provided by Duke Power Company, the relief holder and several tar wells were located in the vicinity of MW-7. Wastewater which contained coal tars was released into a drainage ditch west of this area.

As borings were installed by Strataprobe in an expanding radius from MW-7, soils beneath the fill materials were found to contain varying amounts of coal tars from the surface to the saturated zone. Laboratory analysis of sample DP9, collected west of the gas holder foundation, revealed several PAHs with concentrations up to 22,000 ug/kg. Sample DP14 was collected east of the gas holder foundation and field screened. No coal tars were detected. Laboratory analysis of DP14 confirmed the absence of coal tar compounds.

Other samples collected along the east side of the property also appeared free of coal tars until the second heavily affected area was encountered beginning at the east gate. This area covers approximately one acre extending west from the east gate and was notably devoid of vegetation. The area is in a topographic depression where surface flow collects and either evaporates or infiltrates the soil. Soils were dark with coal tar and exhibited a strong coal tar odor. Two samples were collected in this area; DP17 was field screened to assess soils close to the fence; and DP29 in the center of the affected area was analyzed by the laboratory to determine the magnitude of coal tar compound concentrations. Coal tar was detected in DP17 visually and by odor to a depth of 3 feet. DP29 was collected by hand from surface soils. Laboratory analytical results of DP29 indicated several PAHs with concentrations up to 72,000 ug/kg. According to the plant detail, a purifying box and oil scrubber were located in this area. A reference on coal gasification plant operations explains that purification of the coal gas involved the removal of toxic substances such as hydrogen sulfide and cyanide. Cooling of the gases before scrubbing resulted in the condensation of coal tars. It is assumed that coal tars were released into the soils in this area during the cooling and scrubbing operations.

Several samples were collected north of the heavily affected area including DP25, DP26, DP27, and DP28. Field screening revealed no coal tar in these samples. Laboratory analysis of DP26 and DP28 indicated benzene (7 ug/kg) and naphthalene (20 ug/kg) in DP28 and trichloroethene (94 ug/kg) in DP26. Benzene and naphthalene are componenents of coal tar. Because levels of compounds reported in these samples are relatively low, the northern boundary of the coal tar extent (Figure 5) has been drawn along a line extending through these sample locations.

Additional borings, field screening, and laboratory analysis of collected samples revealed coal tar extending northwest from the heavily affected area in decreasing concentrations. Samples DP23, DP21, and DP18 revealed no coal tars present and laboratory analysis confirmed the absence of VOC and SVOC compounds.

As can be seen in Figure 5, the coal tar extends in a broad band across the DP Site. Two heavily affected areas lie in the northeast and the southwest portions. Coal tar was found in the soils throughout this band from the surface down to groundwater which ranged from a few inches to six feet below the surface. Coal tar compounds include benzene, toluene, ethylbenzene, xylenes, naphthalene, chrysene, pyrene, anthracene, and several other PAHs.



Notably absent from the analytical reports during Phase II were acetone and methylene chloride, which were frequently reported in samples collected during Phase I of the site investigation. As suggested by AES in the initial report following Phase I, it appears that the presence of acetone and methylene chloride were caused by laboratory contamination, not because of their actual presence in the soils.

During the clearing and soil sampling at the DP Site, a tanker truck and three petroleum storage tanks were discovered. Photographs of the tanker truck and the storage tanks are included in **Appendix E**. According to Mr. Gordon Brown, who supervised gas plant operations in the 1940s and 1950s, no tanker truck was used on the site. He did not remember any above-ground-storage tanks in use on site but did report the existence of an underground storage tank toward the south side of the plant that held heating oil for the plant (see Figure 4). He did not know whether the UST had been removed following the closure of the plant.

The tanker truck body appears to have been on the site for some time. Before the area was cleared by the loader for the site investigation, the truck was overgrown with brush and small trees. The tanker is covered with what appears to be asphalt and may have been used for road paving. The words "ASSOCIATED PETROLEUM CARRIERS,

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SPARTANBURG SC" are faintly visible on the side. The top of the tanker is open and no liquids can be seen, at least in that section.

Two of the storage tanks are approximately the same size (600 gallons), and one is slightly smaller and is crushed. All three tanks exhibited punctures and no liquids were observed or odors noted. No identifying marks or plates could be found on the tanks.

C. NB Site

The ditch that carried wastewater from the coal gasification plant is still visible west of the fence which surrounds the DP Site. The ditch has been designated Ditch 1 on Figure 6 - Coal Tar Extent in Soil. Figure 6 illustrates the extent of coal tar found in soils over the entire CSXT property. Ditch 1 parallels Bramlette Road and enters a culvert which lies beneath the road approximately 340 feet west of the DP Site. The culvert is no longer visible because of the buildup of sediments and debris on both sides of the road. However, water can be seen discharging south of Bramlette Road in the area directly opposite a southward turn in the ditch.

Borings were advanced by Strataprobe north of Ditch 1 (NB1 and NB2) and south of the ditch just west of the DP Site (NB3 and NB4). Hand-auger borings were advanced within

the ditch along its length. As at the DP Site, no samples were collected for laboratory analysis if coal tar was detected visually and/or by odor. The exception was at location NB8 where a sample was analyzed in the laboratory to verify the presence and assess concentrations of coal tar compounds. Sample locations are identified on Figure 6.

NB1 was advanced 8 feet west of the DP Site fence and 60 feet north of Ditch 1. Much of this area has been filled since the coal gas plant closed in the late 1950s. The sample was collected by split spoons in native soil at depths of 9-12 feet. No coal tar was visible but a slight coal tar odor was detected in the gray silty clay. Laboratory analysis confirmed the presence of coal tar compounds at concentrations up to 2,000 ug/kg.

NB2 was advanced along the north edge of the ditch approximately 200 feet west of the DP Site fence. Repeated borings with the Strataprobe push rods produced very little or no recovery of soils. Soils were extremely soft, wet clays or clean sand and exhibited no coal tar or coal tar odor. Insufficient soils were recovered to collect a sample for laboratory analysis.

NB3 was advanced 10 feet south of the ditch within 10 feet of the DP Site fence. Soils from the surface to 3 feet were loamy silty clay and exhibited a slight coal tar odor. No sample was collected for laboratory analysis.

NB4 was advanced 25 feet south of NB3 toward Bramlette Road. Soils here also contained slight amounts of coal tar and exhibited a coal tar odor.

Samples NB5 through NB9 were advanced by hand auger within and along the length of Ditch 1 from west of the DP Site fence to the culvert at Bramlette Road. Coal tar was identified by field screening in all samples. Sample NB8 was sent to the laboratory for analysis to confirm the presence of coal tar compounds. Several coal tar compounds were reported in NB8 including benzene (6,500 ug/kg), ethylbenzene (11,000 ug/kg), toluene (17,000 ug/kg), xylenes (total; 32,000 ug/kg), anthracene (1,400,000 ug/kg) chrysene (980,000 ug/kg), naphthalene (5,800,000 ug/kg), and pyrene (2,600,000 ug/kg). A summary of all compounds reported in sample NB8 and other soil samples is included in **Table 1 - VOC and SVOC Compounds in Soil Samples** which is included on **Figure 6**. Complete data summaries and laboratory analytical reports are included in **Appendix G - Laboratory Analytical Reports**.

The presence of coal tar substances in Ditch 1 supports the reports of former coal gasification plant employees that the ditch received wastewater containing coal tar from the back of the plant. According to the employees, wastewater was released to the ditch daily over a twenty year period and possibly longer.

D. Vaughn Landfill Site

The Vaughn Landfill lies south of Bramlette Road in a seasonally inundated floodplain of the Reedy River. Most of the six-plus acre landfill lies on CSXT property but portions extend over the eastern property boundary onto property owned by the Greenville County School District. The discharge point for Ditch 1, which carried coal gasification plant wastewater, is south of Bramlette Road on County property (see Section II-C; Surface Flow). No investigation was conducted on properties not owned by CSXT. However, sample WE001, collected in 1995 before a property survey was completed, indicated the presence of coal tar compounds on County property east of the landfill.

Samples collected in 1995 below the fill materials and within the floodplain west of the landfill revealed the presence of coal tar compounds. Samples collected during Phase II were planned to determine the extent of coal tar. Samples were collected by hand auger in the seasonally flooded area west of the landfill. When coal tar was detected in the soils, flags were placed at that location. Confirmatory samples were collected at WW10, WW11, and WW12 and were analyzed by a laboratory. WW13 was collected at a later date to supplement data collected for the biological survey. Samples were analyzed for VOCs and SVOCs. Coal tar compounds were reported in samples WW10, WW11, and WW13. No coal tar compounds or other contaminants were reported in WW12.

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Figure 6 indicates the extent of coal tar found during Phase II. It appears that as coal tar contaminated wastewater entered the floodplain south of Bramlette Road, the wastewater spread southwest across the floodplain. Aerial photographs of the area taken in the 1950s during gas plant operations indicate the presence of two ponds approximately 700 feet south of Bramlette Road at what is now the southwest corner of the Vaughn Landfill. The ponds are now within the seasonally flooded area west of the landfill. Several samples collected in the area of the ponds, including WW002 collected in 1995, revealed the presence of coal tar in the soil, in some places in layers several inches thick. Much of the coal tar entering the floodplain south of Bramlette probably flowed into the ponds and settled at the bottom.

A man-made ditch (Ditch 5) is also visible in the aerial photographs extending from just south of Bramlette Road, through the ponds, and to the south where the ditch turns to the west toward the railroad trestle at Willard Street. The ditch still exists but is covered at the northern end by the landfill. Sample WW11, collected in Ditch 5 at the south end of the landfill, contained coal tar. Coal tar compounds were reported following laboratory analysis of the sample. Sample WW12 was collected in the ditch approximately 240 feet south of WW11. No coal tar was observed in WW12 and laboratory analysis indicated no coal tar compounds present. An intermediate boring between WW11 and WW12 contained visible coal tar. The ditch apparently drained the ponds as it does the floodplain today and coal tars were transported and deposited along the length of the ditch in decreasing concentrations.

E. Coal Tar Extent Summary

Coal tar contamination in soils is present throughout much of the Duke Power Site from the surface to the water table with two heavily affected areas in the northeast portion and the southwest portion of the property. No coal tar was discovered in the southeast and northwest corners of the site. The NB Site contained coal tar in Ditch 1 along its length from the DP Site fence to the culvert which flows under Bramlette Road. A broad band of coal tar extends across the Vaughn Landfill Site with it's long axis oriented northeast to southwest. A heavy accumulation of coal tar was detected within the floodplain in the area of the former ponds west of the landfill. No coal tar was detected in soils south of the band.

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IV. SOURCE OF THE COAL TAR

Duke Power Company operated a coal gasification plant at the corner of West Washington Street and Bramlette Road for many years during the 1940s and 1950s. A diagram of the former plant was provided to CSXT by Duke Power and the plant details are shown on **Figure 4**. Two former employees of the plant, Mr. Gordon Brown, a superintendent, and Mr. George Washington, a fireman, described during telephone interviews and a site walk the locations of plant buildings and operations at the plant. They also described the discharge of coal tar in a wastewater stream at the back of the plant.

Subsurface investigations at the site of the former plant (DP Site) revealed the presence of extensive tars, ash, and discolored soils throughout much of the site. Photographs of the affected areas are included in **Appendix E**. Push-type technology (Strataprobe) was used to collect soil samples throughout the site as described in Section III. Coal tars were found in an area as highlighted in **Figure 5**.

Several aerial photographs of the area west of the city of Greenville were obtained from the US Agricultural Stabilization and Conservation Service (ASCS). These photographs were taken over a period from 1951 to 1989 and include the properties which contained the former coal gasification plant and the Vaughn Landfill. Photos taken during the 1950s

show the coal gasification plant in operation. West of the plant along Bramlette Road and east of the Reedy River and a railroad bridge, a small stream or ditch is visible which appears to flow south underneath Bramlette Road and continue in a southerly direction through the property on which the landfill now lies (Vaughn Landfill site). Investigation of the extent of the coal tar indicated a westward path along Bramlette Road in a ditch behind the plant. Flow from the ditch crossed Bramlette into the floodplain of the Reedy River, spreading across the floodplain and settling in several low areas or ponds. A survey of the landfill site done in 1989, which was provided to AES by Mr. Robert Vaughn, also indicates the presence of this stream. If wastes from the coal gasification plant were released to the environment, this stream could have provided a pathway for the wastes to enter the landfill property.

It is evident from the extent of the coal tar, the location of the former coal gasification plant, interviews with former employees of the plant, and aerial photographs that the source of the coal tar is the former Duke Power coal gasification plant at the corner of West Washington Street and Bramlette Road.



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V. EXTENT OF GROUNDWATER IMPACT

Eight monitoring wells were installed during Phase II to assess the impact to groundwater quality from coal tar or other contaminants. The initial placement of six wells was proposed in the workplan to assess groundwater quality in the upgradient and downgradient directions from known coal tar soil deposits. Well locations were chosen using the site topography and surface water flow directions as well as the location of the Reedy River to determine local gradient. Following discussions with DHEC personnel in a meeting in Greenville (meeting described in Section I) prior to implementation of the approved workplan, a seventh well was added within the landfill adjacent to MW-3D to assess the upper formation at that location. An eighth well was added at the Duke Power Site to assess groundwater quality at the source of the coal tar.

Seven of the wells were to be screened in the surficial aquifer. One was to be installed as a deep well screened in the sand unit below the upper clay formation or at thirty feet, whichever was reached first. All wells were to be developed and groundwater samples collected and analyzed for VOCs and SVOCs.

A. Well Installations

Groundwater Protection, Inc. (GPI) of Pineville, North Carolina, a South Carolina certified driller, was retained by AES to install seven of the eight monitoring wells at the site. AES was to install MW-4 by hand auger as suggested by DHEC. AES and GPI reviewed the proposed well locations, installation specifications, site parameters, the health and safety plan, and the CSX Railroad safety guidelines for contractors operating on CSX property. Drilling began on Monday, March 11, 1996.

Monitoring well locations are shown on Figure 7 - Extent of Groundwater Contamination. Well construction diagrams and boring logs are included in Appendix H - Well Construction Diagrams.

1. <u>MW-7</u> - The location for MW-7 was based on the grade within the DP Site and the presence of coal tar contamination in the soils at that location. A Strataprobe boring at that location (DP1) had revealed coal tar in the soil from the surface to the water table at approximately 6 feet. During the drilling of the well, a split spoon sample was collected at a depth of 5 to 7 feet to assess the concentrations of coal tar compounds in the soils. The sample was labeled DP1A and sent to the laboratory for analysis (see Section III-B for analytical results).

To use a full 10-foot screen while ensuring a tight seal at the surface of the well, an 8-inch diameter borehole was advanced to 15 feet and the screen was placed from 5 to 15 feet. Screen size was 2-inch diameter, 0.020" slot size PVC construction. A seven foot PVC riser was added to the top of the screen to allow 2 feet of stickup above the surrounding ground surface. A 20 - 40 graded silica sand pack was installed in the annular space up to 3 feet below the surface. Bentonite pellets were poured above the sand pack in a 1 foot layer as a seal. A bentonite/portland cement grout filled the remaining annular space to the surface and a reinforced concrete pad 2 feet x 2 feet was constructed around the well. A protective steel enclosure with a locking swivel cap was set into the pad and the well was labeled with an adhesive aluminum label inscribed with the well ID, depth, water level and other construction details. The well was developed by GPI using a Whale pump for 1 hour. Fifty gallons of groundwater were removed and stored in a 55-gallon drum.

2. <u>MW-1</u> - MW-1 was installed in the northeast corner of the Vaughn Landfill to assess groundwater quality entering the CSXT property at that point. The landfill materials were drilled through to a depth of 8 feet where split spoon sampling commenced to assess native soils at that location. Silty clay was found beneath the fill material from 8 to 10 feet. Silty micaceous sand was found below 10 feet to

the final well depth of 15 feet. Coal tar was not observed in the drill cuttings but both the clay and the sands exhibited a strong coal tar odor.

Construction details for MW-1 are the same as for MW-7 with a 10-foot screen set from 5 to 15 feet below the surface. The screened interval covers both the clay and sand formations as well as 3 feet of the fill materials. The water level in MW-1 was taken after 24 hours of stabilization and was measured at 7.12 feet below the top of casing or approximately 5 feet below the landfill surface.

- 3. <u>MW-2</u> MW-2 was installed west of the landfill adjacent to the CSX office. Augering proceeded through the soil fill to 5 feet where split spoon sampling began. Silty clays were found from 5 to 11 feet. Silty sand was found from 11 to 15 feet. No coal tar or coal tar odor was detected. The well was set with the screened interval from 5 to 15 feet. Other construction details are similar to those for MW-1 and MW-7. The water level after 24 hours was found to be 10.3 feet below the top of casing.
 - 4. <u>MW-3</u> MW-3 was installed at the request of DHEC as a shallow well to complement the deep well (MW-3D). Both MW-3 and MW-3D are located within the landfill north of the ditch which bisects the fill material. During construction

of MW-3D, it was discovered that the clay layer below the fill extended to approximately 15 feet where a silty sand was encountered. MW-3 was constructed with the bottom of the screen set at 14 feet to remain within the clay. A 5-foot screen was used which covered the interval from 9 to 14 feet. The sand pack filled the annular space from 7 to 14 feet. A 2-foot bentonite seal reached from 5 to 7 feet and the cement/bentonite grout filled the remaining space to the surface. The well was completed with a concrete pad and protective steel enclosure.

The water level after 24 hours was measured at 10.65 feet below the top of the casing.

5. <u>MW-3D</u> - MW-3D was installed as the deep well within the lower sand formation which lies beneath the upper clay that covers most of the floodplain. After augering through the fill material with 14-inch augers, continuous split spoon samples were collected from 10 feet to 16 feet to determine the interface between the clay and sand which was found at approximately 15 feet. Augering then continued to 14.5 feet and an 8-inch PVC casing was set to seal off the upper formation from the lower sand. Continuous split spoon samples were then collected from 16 feet to 20 feet where the silty sand graded to a stiff saprolite. A 3-inch layer of coal tar was discovered in the split spoon sample from 16 to 18

feet. The split spoon sample from 18 to 20 feet also contained coal tar in sandy silt which graded to a stiff saprolite. The borehole was then drilled out with 8-inch augers to 20 feet and a 5-foot screen was set from 15 to 20 feet. The sand pack was installed from 15 to 20 feet and the bentonite seal was set from 13 to 15 feet. A cement/bentonite grout was poured in the remaining annulus to the surface and the well was completed with concrete pad and protective steel enclosure. The water level 24 hours after development reached 10.55 feet below the top of the casing.

6. <u>MW-4</u> - DHEC suggested the installation of MW-4 by hand auger to avoid disturbance of the floodplain with a full size drill rig. MW-4 was installed by hand auger east of the landfill to a total depth of 7 feet. Soils from the surface to 1 foot consisted of loamy clay. Remaining soils consisted of varying silts, sands, and clays to 7 feet. No coal tar or coal tar odor was detected in the soils. The water table was reached within 1 foot of the surface. A 5-foot PVC screen was installed from 2 to 7 feet and a 5-foot PVC riser brought the casing to 3 feet above the surface. A sand pack was set from 1 to 7 feet and a bentonite pellet seal was placed in the remaining space to the surface. The well was developed by hand using a disposable PVC bailer. Approximately 10 gallons of water were removed



from the well. The water level was measured within 24 hours at 4.65 feet below the top of the casing.

- 7. <u>MW-5</u> MW-5 was installed southwest of the landfill along the CSX right-of-way which borders the landfill property. The drill rig first augered through the fill dirt used to elevate the rail lines. Split spooning began at approximately 5 feet. Loamy clay was discovered from 5 to 9 feet followed by quartz mica sand to 14 feet. No coal tar or tar odor was detected in the soils. A 10-foot PVC screen was set from 4 to 14 feet with a riser of 6 feet. The sand pack was set from 3 to 14 feet followed by the bentonite pellet seal from 2 to 3 feet. A cement/bentonite grout filled the remaining annular space to the surface and the well was completed with a concrete pad and protective steel enclosure. The well was developed for 1 hour 15 minutes using a Whale pump which removed approximately 40 gallons of water. The development water was pumped into a 55-gallon drum which was scaled and labeled. The water level 24 hours after development was measured at 9.48 feet below the top of the casing.
- 8. <u>MW-6</u> MW-6 was installed at the southwest end of the landfill through the fill material. Eight feet of fill material were augered through and split spoon samples were collected to determine the stratigraphy from 8 to 12 feet. Soils beneath the

fill material consisted of greenish black clay containing coal tar and a strong coal tar odor. A 10 foot PVC screen was set from 2 to 12 feet. The sand pack was set from 2 to 12 feet topped by a 1 foot thick bentonite seal and 1 foot of cement/bentonite grout. The well was completed with a reinforced concrete pad and protective steel enclosure. The well was developed with the Whale pump for 25 minutes and 30 gallons of water were pumped into a 55-gallon drum. After allowing for stabilization, the water level was measured at 11.0 feet below the top of the casing.

9. <u>Derived Wastes</u> - Well development water and drill cuttings were managed according to guidelines set forth in the *Monitoring Well Approval* form received from DHEC as a supplement to the Workplan Approval letter. Development water and drill cuttings were placed in clean 55-gallon drums, labeled as to contents, date, and potential hazards if any, and stored in a central location on the landfill for eventual disposal.

B. Groundwater Sampling

<u>Sampling Procedures</u> - Sampling of the monitoring wells was conducted on March
 13, 1996. The wells were sampled within 24 hours following development.

Sampling was performed according to EPA protocol as specified in the Standard Operating Procedures and Quality Assurance Manual, dated February 1991 and the AES Field Operations Manual, dated May 1995.

Samples were labeled, placed in coolers, and shipped under chain-of-custody to American Environmental Network (AEN), formerly ATI in Pensacola, Florida. AEN is a CSXT approved and South Carolina DHEC certified laboratory.

2. <u>Free Product</u> - To determine whether free product was present in the wells, a Solinst Model 121 Interface Meter was lowered through the well casings and the water levels and level of free product, if any, were logged. Wells MW-3, MW-3D, and MW-6 exhibited strong coal tar odors during construction, development, and sampling. However, only MW-3D was found to contain measurable free product.

Free product coal tar at the bottom of MW-3D was measured at 2.75 inches thick 2 weeks after construction of the well. A split spoon sample collected during installation of the well revealed a distinct 3-inch layer of the coal tar in sandy soils between 16 and 18 feet below the surface. A subsequent split spoon sample collected from 18 to 20 feet was composed of sandy silt grading into saprolite (weathered rock). Sands in the second split spoon sample also contained coal tar

but the saprolite appeared nearly dry and free of coal tar. From this evidence, it appears that the coal tar is flowing through the sand unit along the top of the impermeable saprolite, at least in the area of MW-3D. Ground surface at MW-3D is the top of the landfill, which is approximately 11 feet thick at this location. This means that the saprolite surface is approximately 7 to 9 feet below the natural land surface.

C. Laboratory Analytical Results

Groundwater samples were analyzed for VOCs (EPA method SW-846 8260) and SVOCs (EPA method SW-846 8270 BN Extractables). Groundwater samples collected from the three wells installed in the landfill (MW-3, MW-3D, and MW-6) were also analyzed for sulfates as requested by DHEC. Sample results from the Phase I and Phase II groundwater samples are summarized in Table 2 - Volatile and Semivolatile Compounds in Groundwater Samples which is included on Figure 7. The table also includes the Maximum Contaminant Levels (MCLs) for each compound listed in the document *Drinking Water Regulations and Health Advisories* prepared by the U.S. Environmental Protection Agency (EPA) published in May 1995. Copies of the complete analytical reports are included in Appendix G - Laboratory Analytical Reports.

In the descriptions that follow, the compound with the highest reported concentration has that concentration in parentheses following the compound. Compounds that exceed the Maximum Contaminant Levels (defined as the "Maximum permissible level of a contaminant in water which is delivered to any user of a public water system" by the USEPA, May 1995) are noted below.

- <u>MW-1</u> Several semi-volatile compounds were reported in the groundwater sample collected from MW-1 including acenapthene, fluorene, 2-methylnapthalene, napthalene (4,600 ug/l), and phenanthrene. These compounds are commonly associated with coal tar. None of the compounds reported exceeded MCLs.
- <u>MW-2</u> No volatile or semi-volatile compounds were reported above laboratory detection limits for groundwater sample MW-2.
- 3. <u>MW-3</u> VOC compounds reported in groundwater sample MW-3 included benzene (160 ug/l), ethylbenzene, styrene, toluene, 1,2,4-trimethylbenzene, 1,3,5trimethylbenzene, m,p-xylene, and o-xylene. SVOC compounds reported included acenapthene, acenapthylene, fluorene, 2-methylnapthalene, napthalene(15,000 ug/l), and phenanthrene. The concentration of benzene (160 ug/l) exceeded the MCL (5 ug/l). Sulfate was reported at 640 mg/l.

- MW-3D VOC compounds reported in sample MW-3D included benzene (1,100 ug/l), ethylbenzene, isopropyl benzene, styrene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, m,p-xylene, and o-xylene. SVOC compounds reported included 2-methylnapthalene and napthalene (8,300 ug/l). Benzene exceeded the MCL. Sulfate was reported at 35 mg/l.
- <u>MW-4</u> No VOC or SVOC compounds were reported above laboratory detection limits for the groundwater sample collected from MW-4.
- <u>MW-5</u> No VOC compounds were reported above laboratory detection limits for the groundwater sample collected from MW-5. One SVOC compound was reported; napthalene at 12 ug/l.
- 7. <u>MW-6</u> VOC compounds reported in sample MW-6 included toluene, 1,2,4trimethylbenzene, and m,p-xylene (10 ug/l). SVOC compounds reported included acenapthene, acenapthylene, anthracene, dibenzofuran, fluoranthene, fluorene, 2methylnapthalene, naphthalene (1,800 ug/l), phenanthrene, and pyrene. No compounds reported exceeded MCLs. Sulfate was reported at 160 mg/l.

<u>MW-7</u> - Benzene (680 ug/l) was the only VOC compound reported in sample MW SVOC compounds reported included 2-methylnapthalene, and naphthalene
 (1,900 ug/l). Benzene exceeded the MCL.

Concentrations of benzene exceeded the MCL in groundwater samples MW-3, MW-3D, and MW-7. Groundwater samples LF023A, LF025A, and LF027A, collected during Phase I, also contained benzene concentrations exceeding the MCL. The concentration of benzo(a)pyrene exceeded the MCL (2 ug/l) in groundwater sample LF023A (10 ug/l).

D. Discussion

Analysis of groundwater samples collected from the monitoring wells indicates that volatile and/or semi-volatile compounds have been detected in groundwater samples from six of the eight wells. Samples from monitoring wells MW-1, MW-3, MW-3D, MW-5, MW-6, and MW-7 contain VOC and/or SVOC compounds. The groundwater sample from MW-5 contained naphthalene at 12 ug/l but no other compounds were reported above detection limits in that well. Groundwater samples collected from monitoring wells MW-2 and MW-4 contained no VOC or SVOC compounds above detection limits.

Most of the compounds reported in the groundwater samples have been associated with coal tar wastes. BTEX compounds and PAHs are the most common compounds found in coal gasification plant residuals according to several sources referenced (see bibliography). As coal tar infiltrates soils and reaches the water table, dissolution of the tar begins and the individual compounds may be spread through the aquifer by advection and/or diffusion. Advection means that the dissolved contaminants are carried along by the movement of the groundwater through the aquifer matrix. Diffusion is the movement of ionic or molecular constituents by kinetic activity. An example of diffusion is the dispersion of dissolved salt (sodium and chloride ions) in a standing glass of water. Volatile compounds that are less dense than water, such as benzene and toluene, may rise to the surface of the water table, or become adsorbed to soil particles, or may rise through the unsaturated zone to volatilize into the atmosphere. The more dense, non-aqueous phase liquids (DNAPLs), which comprise the largest percentage of the coal tar, may migrate downward by gravity until a low permeability surface (such as a bedrock surface) is encountered. The coal tar may then follow this surface to pool in depressions or may infiltrate fractures and continue to move downward. Table 3 - Physical Characteristics of Constituents lists those compounds most frequently identified in the samples and their physical characteristics including specific density. If the density of a substance is greater than 1.00 g/ml (density of water) and the concentrations exceed solubility in water, the substance will sink. As is evident from the table, many of the compounds comprising the coal tar are more dense than water.

A potentiometric surface map represents the gradient of hydraulic head in an aquifer. Ideally, the wells used to determine the potentiometric surface should be screened within similar lithologic units and at the same depth. The eight wells installed on CSXT property are screened within 20 feet of the surface but are within or cross different lithologic units. The native soils below the fill materials and within the floodplain vary from dense clays to silty clay loams to sandy silts to sandy loams. These units vary in thickness from a few inches to several feet. The interface between two units may be abrupt, as in MW-3D where the dense clay changes to sand within a 6-inch interval. This variation is representative of alluvial soils in floodplains and depressions as stream channels have meandered across the floodplain over time depositing a range of sediments. Delineating separate aquifer zones in alluvial deposits is a difficult process and is often speculative. Units in a floodplain environment tend to be discontinuous and hydraulically interconnected. Therefore, although hydraulic conductivity probably varies vertically and horizontally from unit to unit, AES considers the saturated zone above the saprolite surface to be one hydraulically connected unit for purposes of this investigation.

As expected from the local topography, groundwater flows from northeast to southwest

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toward the Reedy River. Water levels in the eight wells on CSXT property decrease in elevation from northeast to southwest from MW-7 to the MW-5. The potentiometric surface, represented by bold contour lines on **Figure 7**, was prepared from the results of water level measurements taken with a Slope Indicator Company water level indicator marked in 1/100th foot increments. Water levels were measured from the top of the well casings. Casing elevations were surveyed in relation to a USGS datum at the Norfolk Southern Rail bridge at West Washington Street. Elevations are reported in feet (to the nearest hundredth foot) above mean sea level.

The estimated extent of horizontal groundwater contamination is represented on Figure 7. The contaminant plume reaches from the DP Site southwest to the Reedy River in a long narrow band. Usually following a release of contaminants, the highest concentrations of individual compounds in a groundwater plume are found at the source of the contamination, in this case the DP Site, and concentrations decrease downgradient. Over time, the higher concentrations may be found downgradient as the contaminant plume migrates in the direction of groundwater flow. Because much of the coal tar was released in wastewater at the back of the coal gasification plant and apparently settled in the floodplain south of Bramlette Road, much of the impact to groundwater has probably occurred from coal tars within the floodplain. This may be the reason that the highest concentrations of groundwater contaminants were found in monitoring wells MW-3 and MW-3D (Vaughn Landfill Site), while groundwater samples from MW-7 at the DP Site contained lower concentrations. The migration rates of coal tar constituents that vary because of differences in solubility and sorption characteristics may also affect contaminant concentrations.

It is expected from the presence of naphthalene in MW-5 that the contaminant plume reaches the Reedy River and may be discharging to the river. However, a water sample collected in the river downstream of the plume contained no detectable concentrations of contaminants.

Because free product was found in only one well (MW-3D), no estimate of the extent of the free product layer has been shown.

VI. LOCATION LF024

The workplan called for the excavation of landfill soils at location LF024 where a Strataprobe sample collected in 1995 revealed elevated levels of heavy metals including lead (1,538 mg/kg), barium (557 mg/kg), cadmium (40.4 mg/kg), and chromium (79.9 mg/kg).

During Phase II, location LF024 was excavated with a trackhoe to attempt to uncover the source of heavy metal contamination. Excavated materials included soil, brick, concrete, wood, and metal. Included with the metal were several lengths of piping such as that connected to petroleum storage tanks, a crushed 55-gallon drum, and a small tank (approximately volume 10 gallons). **Photograph 34, Appendix E** is a picture of the excavated materials. The tank contained liquid which appeared to be primarily water with a sheen and slight petroleum odor. A sample of the liquid was collected and laboratory analyzed for VOCs. Sample results of G-Tank1 included concentrations of chloroethane (22 ug/l), 1,1-dichloroethane (15 ug/l), and xylenes (18 ug/l). These concentrations are below regulatory limits and are inadequate to determine the contents of the tank. Unsuccessful attempts were made to identify the purpose of the tank.

No definitive source of the metals contamination was found during the excavation. A soil

sample collected from the base of the fill materials in native soil (at the same depth as the 1995 sample) was analyzed by the laboratory for RCRA metals. Concentrations of metals reported included lead (21 mg/kg), barium (190 mg/kg), and chromium (42 mg/kg). Sample results are included in **Appendix G**. These concentrations are consistent with concentrations reported from other samples collected in 1995 and are comparable to background metal concentrations of soils in the northwest piedmont of South Carolina. The elevated metals levels reported in the 1995 sample may have been the result of an isolated zone of metals contamination caused by the leaching of metals from debris in the landfill.

VII. CONTAMINANT PATHWAYS

Possible contaminant pathways considered for migration of the volatile and semi-volatile compounds reported in soil and water samples included air, soil, and water.

A. Air

Volatilization of many of the coal tar compounds including benzene, toluene, ethylbenzene, and xylenes may be still occurring even though the coal tars have been in the soils for over 50 years. Following the disturbance of the soils at the Duke Power Site during clearing for Phase II, a coal tar odor was detected which was noticeable off the site in the surrounding neighborhood. However, soil concentrations of VOCs are relatively low (< 50 ppm) and the concentrations of VOCs in air are expected to be very low.

B. Water

VOCs and SVOCs were reported in groundwater samples collected from six monitoring wells. As discussed in Section V, dissolution of the coal tar begins with its contact with water. However, many of the coal tar compounds, particularly the PAHs, have low

solubilities and enter the dissolved phase at a low rate. The volatile compounds with higher solubilities enter the dissolved phase more rapidly.

Mobility of the coal tar and dissolved constituents varies between the DNAPLs and the lighter volatile compounds. Because the coal tars pool in depressions at the bottom of more permeable units, a smaller surface area of the coal tar is available for dissolution and many of the lighter compounds are locked up with the more dense fraction. Once individual compounds are released by the tar, they may adhere to the soil matrix by adsorption. Research indicates that much of the contamination introduced to subsurface systems is held by adsorption, especially in clays. Anaerobic conditions in a floodplain environment inhibit natural attenuation of contaminants. This may explain why volatile compounds are still found in the coal tar contaminated soils and groundwater after aging for over 50 years.

 Free Product - The extent of free product coal tar has not been delineated. Free product was found in MW-3D between 18 and 20 feet at the overburden/saprolite interface and is most likely following the top of the saprolite surface and collecting in depressions. At this point, there is no evidence of the migration of the free product plume off the CSXT properties. No free product was found in monitoring wells other than MW-3D. Additional investigation is necessary to assess the extent of the free product coal tar plume.

- 2. <u>Groundwater</u> The VOC and SVOC compounds reported in groundwater samples are compounds dissolved from the coal tar. The estimated extent of the contaminant plume formed by these compounds is shown on Figure 7. Because of the presence of naphthalene (12 ug/l) in MW-5, and the extent of coal tar found in the floodplain soils west of the landfill, the plume has been shown as reaching the Reedy River. The discharge point of groundwater from the shallow saturated zone within the CSXT properties is expected to be the river, therefore, it is likely that contaminants in groundwater are discharging to the Reedy River. Again, no VOC or SVOC compounds were reported in surface water sample Reedy 2, collected downstream from the plume, but dilution of contaminants may be so great at that point that detection is unlikely and water quality in the river is not affected.
- Surface Water Surface water may carry contaminants in solution downstream. As described in Section IID - Surface Flow, precipitation falling on the CSXT properties eventually enters the floodplain east of the Reedy River and flows

through Ditch 5 to enter the Reedy River at Willard Street. This is the only known point of exit for surface flow from the CSXT properties. Sample FD1, collected from surface water in the ditch before it turns west at Willard Street, was analyzed for VOC and SVOC compounds. No compounds were detected by the laboratory. Another sample (WD1) was collected from a smaller ditch which carries runoff from Willard Street. This ditch enters Ditch 5 as it turns west. No VOC or SVOC compounds were detected in WD1 although an oil sheen was visible on water in the ditch. The sheen is probably from street runoff.

C. Soil

Soil contaminated by coal tar was found to be areally extensive within the CSXT properties. Soil contamination would also be expected to be found within the Greenville County School District Property east of the Vaughn Landfill Site.

Coal tar is relatively heavy and migrates downward into soil pore spaces and other openings. No free coal tar was observed at the surface at the DP Site but was found saturating the soils at two locations. Migration of coal tar off the site may still occur as the coal tar and related compounds enter groundwater and are transported downgradient.

Some dissolution of coal tar compounds may occur as surface water flows over the site soils.

At the Vaughn Landfill Site, the coal tar in soils is either covered by the landfill materials or is under water in the floodplain. Migration of the coal tar and related compounds is by dissolution into surface water or groundwater and by gravity deeper into the soil matrix.

There are currently no on-going earth disturbing activities on the CSXT properties that would transport contaminated soil from the sites.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The information gathered to date indicates that the contaminants in soil and groundwater within the CSXT properties are the result of the release of coal tar and coal tar laden wastewater from the former Duke Power coal gasification plant. Soils saturated with coal tar on the DP Site represent a source of contaminants that may continue to affect groundwater quality and air quality to a lesser extent.

Because the free product coal tar in soil and groundwater will continue to release volatile and semi-volatile compounds to groundwater, it is recommended that the extent of free product in groundwater be delineated. The free product coal tar may be following the saprolite surface. The delineation of the saprolite surface by geophysical methods would normally be recommended to assess the potential sites of free product pooling and migration direction. However, the local topography, which includes extensive seasonally flooded areas and heavy undergrowth, would inhibit the execution of a geophysical survey. Split spoon samples collected in a grid by push-type technology such as a Geoprobe may be the most effective method of delineating the free product plume.

The groundwater plume appears to reach the Reedy River and may be discharging to the river. However, a surface water sample collected downstream of the contaminant plume

contained no VOC or SVOC compounds. No downstream users of Reedy River water were identified and a well survey found no drinking water wells within a 1/2 mile radius of the CSXT properties. The contaminant plume does not appear to have moved off CSXT property in the fifty years since the coal gas plant ceased operations, and there is no evidence of impact to downstream users. Additional monitoring of groundwater quality in the eight monitoring wells may be appropriate.

The underground storage tank (UST) and the industrial water supply well on the DP Site may represent sources or pathways for contaminants. The disposition of the UST should be determined. Geophysical methods may be used to determine whether the UST was removed or remains in place. The well is listed as abandoned. The location and condition of the well should be determined because it could provide a pathway for surface contamination into the subsurface.

Materials in the Vaughn Landfill do not appear to contribute significantly to the contamination at the site. The small tank found in location LF024 in the landfill contained concentrations below regulatory limits of several compounds.

There is no evidence to suggest that activities conducted by CSXT have contributed to the contamination on the properties.

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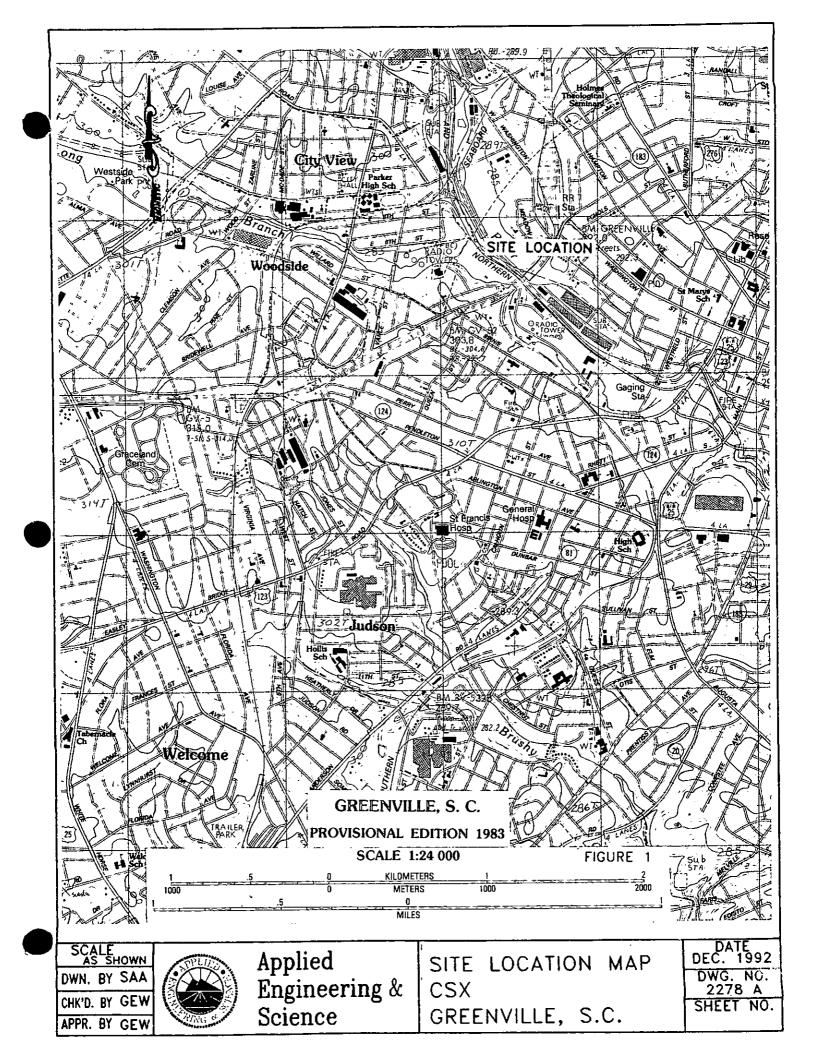
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FIGURES AND TABLES



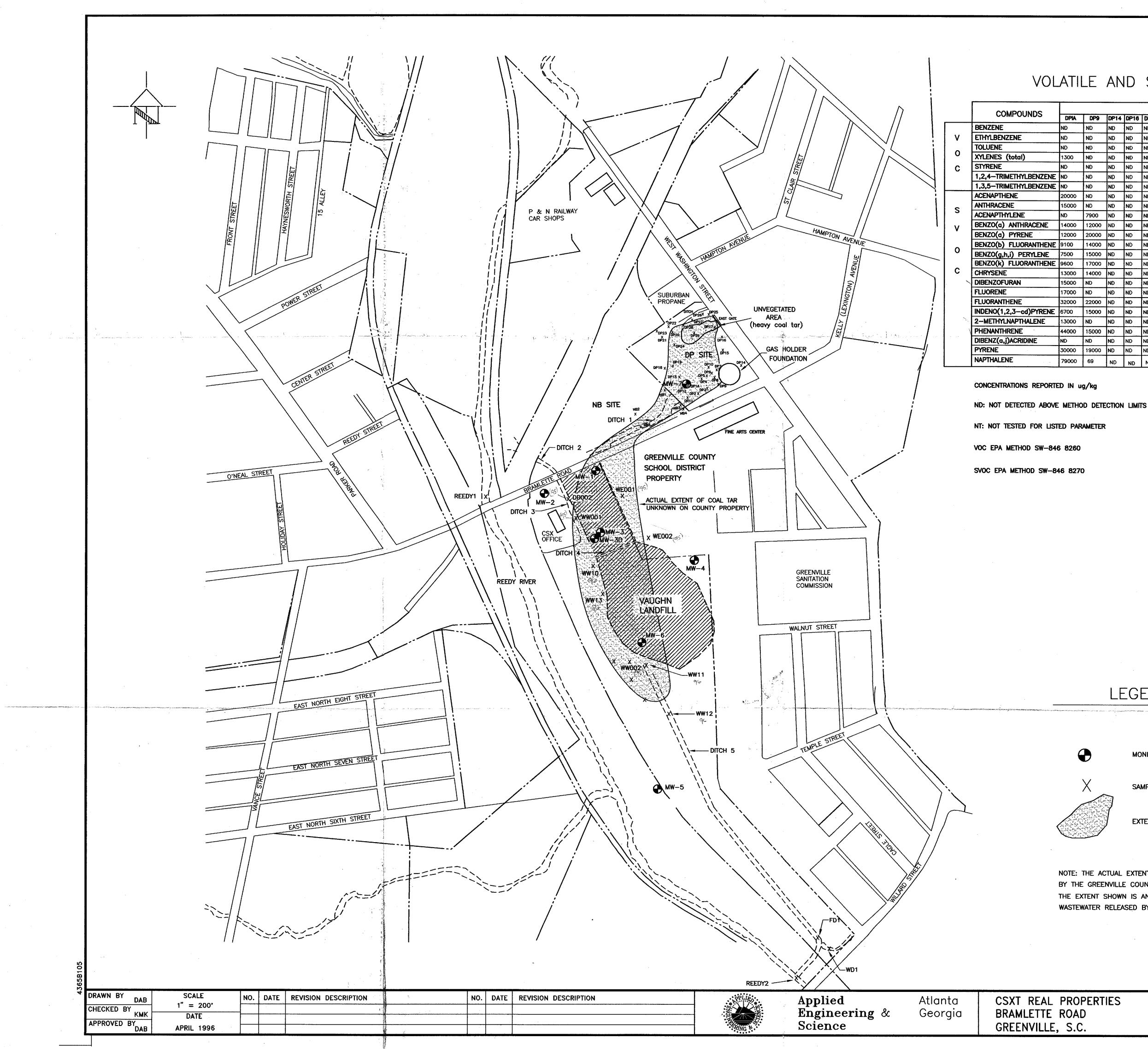


TABLE 1 VOLATILE AND SEMI-VOLATILE COMPOUNDS IN SOIL SAMPLES

						1996	SAM	PLES									199	5 SA	MPLE	PLES		
DP9	DP14	DP16	DP18	DP21	DP23	DP26	DP28	DP29	NB1	NB8	LF-024-2	WW-10	WW-11	₩₩-12	WW-13	WE001	WE-002	DD002	WW001	WW002	WS001	
ID	ND	ND	ND	ND	ND	ND	7	ND	ND	6500	ND	ND	ND	ND	ND	65	ND	ND	16	12000	ND	
1D	ND	ND	ND	ND	ND	ND	ND	ND	ND	11000	ND	ND	ND	ND	ND	340	ND	ND	ND	2600	ND	
ID	ND	ND	ND	ND	ND	ND	ND	ND	ND	17000	ND	ND	ND	ND	ND	150	ND	ND	5	18000	ND	
ID	ND	ND	ND	ND	ND	ND	ND	ND	ND	32000	ND	ND	ND	ND	ND	360	ND	ND	ND	26000	ND	
ID	ND	ND	ND	ND	NÐ	ND	34	ND	ND	4100	ND	ND	ND	ND	ND	60	ND	ND	ND	8300	ND	
ID	ND	ND	ND	ND	NĎ	ND	ND	ND	ND	16000	ND	ND	ND	ND	ND	ND	ND	ND	NĎ	NT	ND	
ID	ND	ND	ND	ND	ND	ND	ND	ND	ND	5400	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	
ID	ND	ND	ND	ND	NŪ	ND	ND	ND	ND	60000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ID	ND	ND	ND	ND	NĎ	ND	ND	ND	ND	1400000	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	
/900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13000	ND	ND	ND	ND	NT	ND	
2000	ND	ND	ND	ND	ND	ND	ND	ND	780	1000000	ND	2700	ND	ND	33000	ND	ND	ND	ND	NT	ND	
0000	ND	ND	ND	ND	ND	ND	ND	ND	600	780000	ND	1900	12000	ND	32000	ND	ND	ND	ND	NT	ND	
4000	ND	ND	ND	ND	ND	ND	ND	62000	670	460000	ND	3100	ND	ND	24000	ND	ND	ND	ND	NT	ND	
5000	ND	ND	ND	ND	ND	ND	ND	ND	490	380000	ŇD	2500	ND	ND	19000	ND	ND	ND	ND	NT	ND	
7000	ND	ND	ND	ND	ND	ND	ND	72000	630	700000	ND	2300	ND	ND	36000	ND	ND	ND	ND	NT	ND	
4000	ND	ND	ND	ND	ND	ND	ND	53000	890	98000	ND	2800	11000	ND	32000	ND	ND	ND	ND	NT	ND	
ID	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	
ID	ND	ND	ND	ND	ND	ND	ND	ND	ND	1700000	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	
2000	ND	ND	ND	ND	ND	ND	ND	ND	2000	2000000	510	4400	20000	ND	52000	3400	ND	ND	ND	NT	ND	
5000	ND	ND	ND	ND	ND	ND	ND	ND	460	340000	ND	2100	ND	ND	17000	ND	ND	ND	ND	NT	ND	
D	ND	ND	ND	ND	ND	ND	ND	ND	ND	3200000	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	
5000	ND	ND	ND	ND	ND	ND	ND	ND	1800	3800000	470	1300	ND	ND	37000	6700	ND	ND	ND	NT	ND	
ID	ND	ND	ND	ND	ND	ND	ND	ND	ND	800000	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	
9000	ND	ND	ND	ND	ND	ND	ND	NÐ	1700	2600000	450	4000	17000	ND	73000	6300	ND	ND	ND	NT	ND	
69	ND	ND	ND	ND	ND	ND	20	210	ND	5800000	ND	130	ND	ND	ND	4200	ND	ND	ND	NT	ND	
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MONITORING WELL LOCATION

EXTENT OF COAL TAR IN SOIL

SAMPLE LOCATION (SOIL OR SURFACE WATER)

NOTE: THE ACTUAL EXTENT OF COAL TAR CONTAMINATION ON PROPERTY OWNED BY THE GREENVILLE COUNTY SCHOOL DISTRICT HAS NOT BEEN DETERMINED. THE EXTENT SHOWN IS AN ESTIMATE BASED ON THE ASSUMED FLOW DIRECTION OF WASTEWATER RELEASED BY THE COAL GAS PLANT AND ON THE LABORATORY RESULTS OF SAMPLE WEOOT

COAL TAR EXTENT IN SOIL PHASE II INVESTIGATION

DWG. NO 43658105

FIGURE 6

SHEET NO.

96' SOIL 3 SURFACE WATCRS

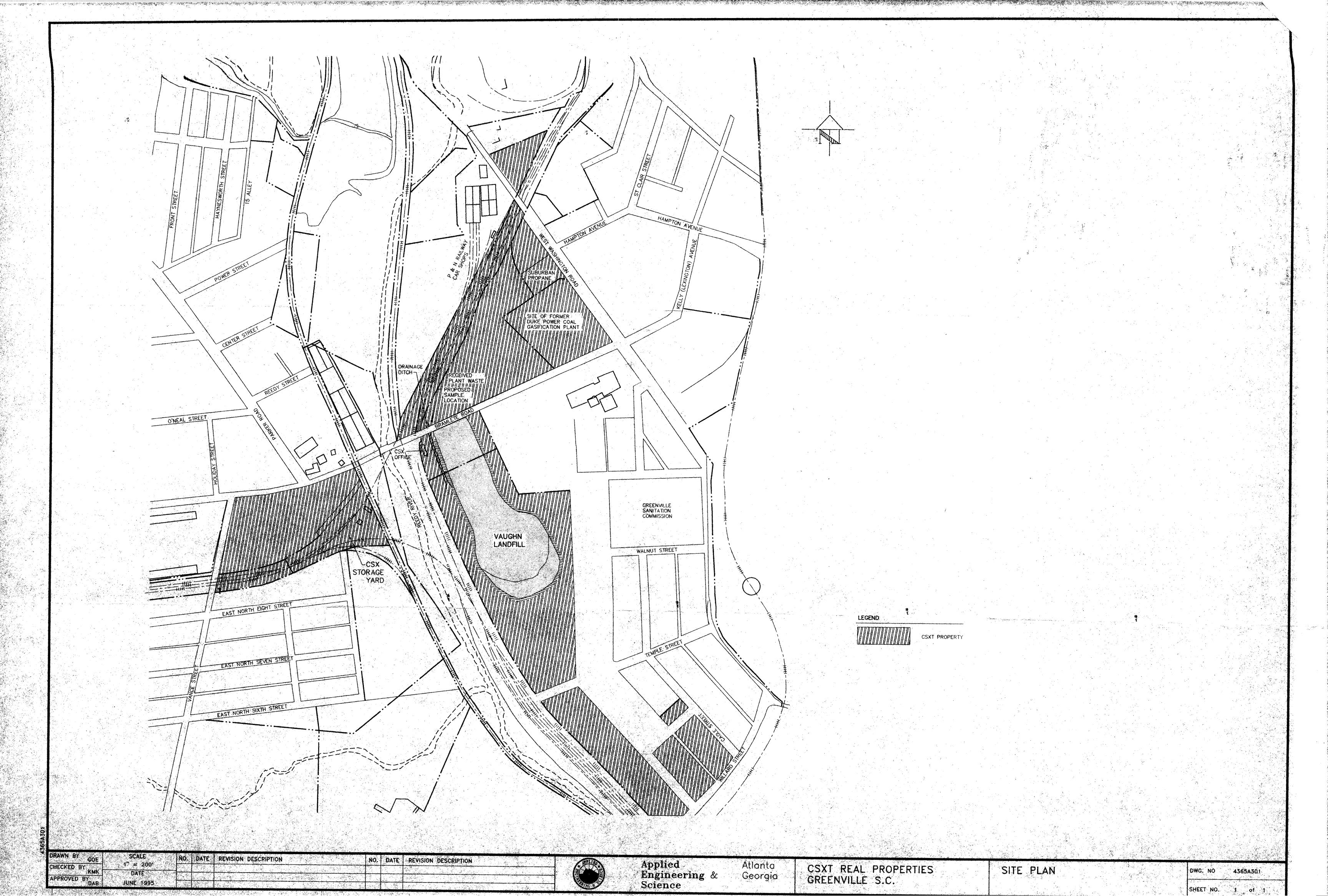
Table 3 Contaminant Characteristics Phase II Site Investigation Greenville, South Carolina August 1996

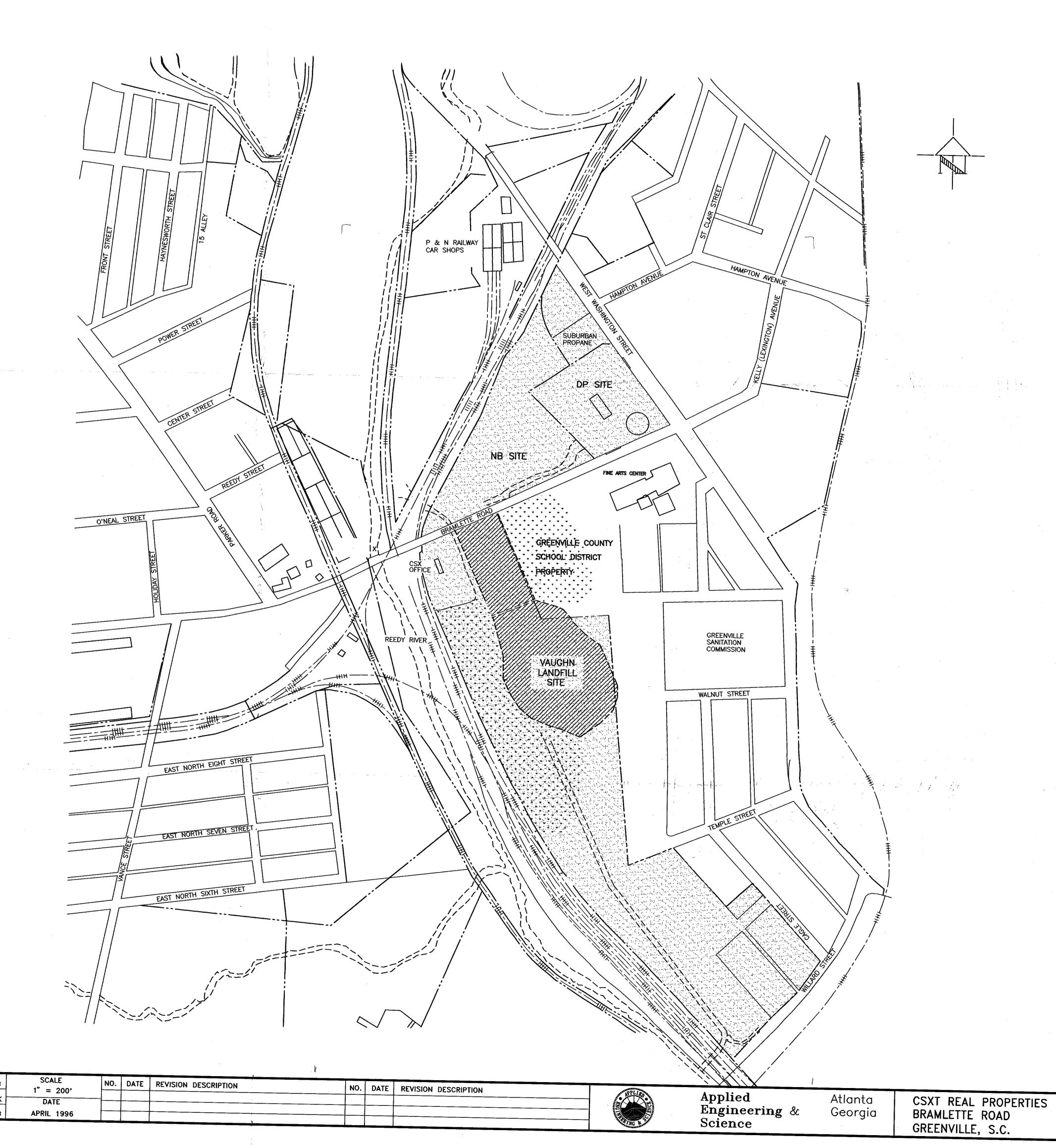
Constituent	Molecular Weight	Solubility in Water	Specific Density
Acenaphthylene	152.20	3.93 mg/L at 25° C	0.8988 g/mL at 16/2° C
Anthracene	178.24	7.5 E-2 mg/L at 15° C	1.283 g/mL at 25/4° C
Benzene	78.11	1,780 mg/L at 20° C	0.9625 g/mL at 100/4° C
Benzo(a)anthracene	228.30	1.4 E-2 mg/L at 25° C	1.274 g/mL at 20/4° C
Benzo(a)pyrene	252.32	3.8 E-3 mg/L at 25° C	1.351 g/mL
Benzo(b)fluoranthene	252.32	1.2 E-3 mg/L at 25° C	No data
Benzo(k)fluoranthene	252.32	5.5 E-4 mg/L at 25° C	No data
Chrysene	228.30	1.5 E-3 mg/L at 15° C	1.274 g/mL at 20/4° C
Ethylbenzene	106.17	140 mg/L at 15° C	0.8670 g/mL at 20/4° C
Ideno(1,2,3-cd)pyrene	276.34	6.2 E-2 mg/L	No Data
2-Methylnaphthalene	142.20	24.6 mg/L at 25° C	1.0058 g/mL at 20/4° C
Naphthalene	128.18	30 mg/L at 25° C	0.9625 g/mL at 100/4° C
Phenanthrene	178.24	1.6 mg/L at 15° C	0.9800 g/mL at 4/4° C
Pyrene	202.26	1.6 E-1 mg/L at 26° C	1.271 g/mL at 23/4° C
Styrene	104.15	300 mg/L at 20° C	0.9060 g/mL at 20/4° C
Toluene	92.14	515 mg/L at 20° C	0.8669 g/mL at 20/4° C
o-Xylene	106.17	152 mg/L at 20° C	0.8802 g/mL at 20/4° C

Data was compiled from Groundwater Chemicals Desk Reference, Montgomery and Welkom, 1991.

Solubility in water is defined as the saturated concentration of the compound in water at a given temperature and pressure.

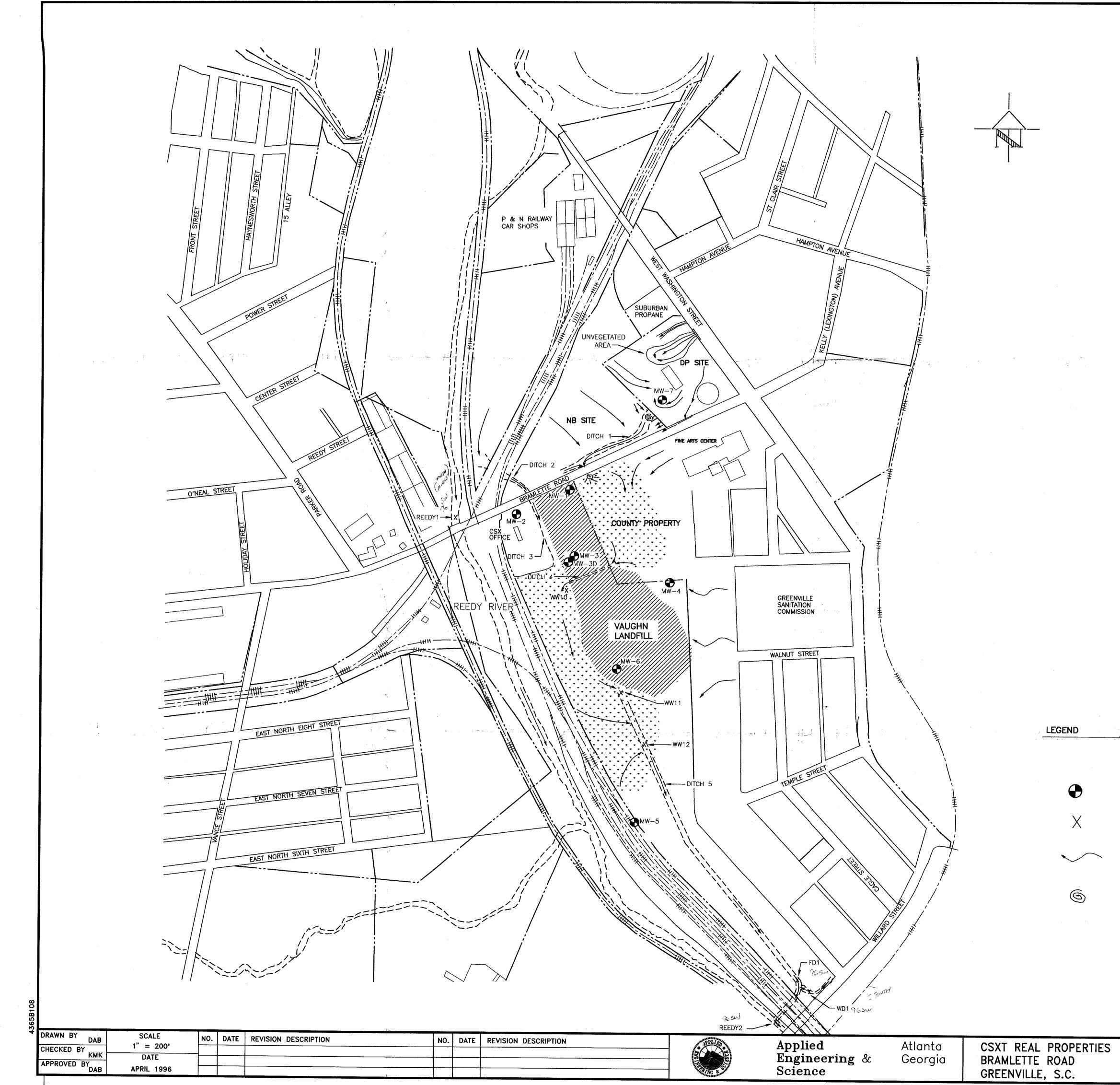
Specific density is the density of a substance at x°C with respect to water at 4°C. At 4°C the density of water is 1.000 g/mL.





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LEGEND CSXT PROPERTIES DP SITE INVESTIGATION SITE DESIGNATION FIGURE 2 CSXT PROPERTIES DWG: NO 43658100 PHASE II SITE INVESTIGATION SHEET NO. 1 of 1 Bowkin



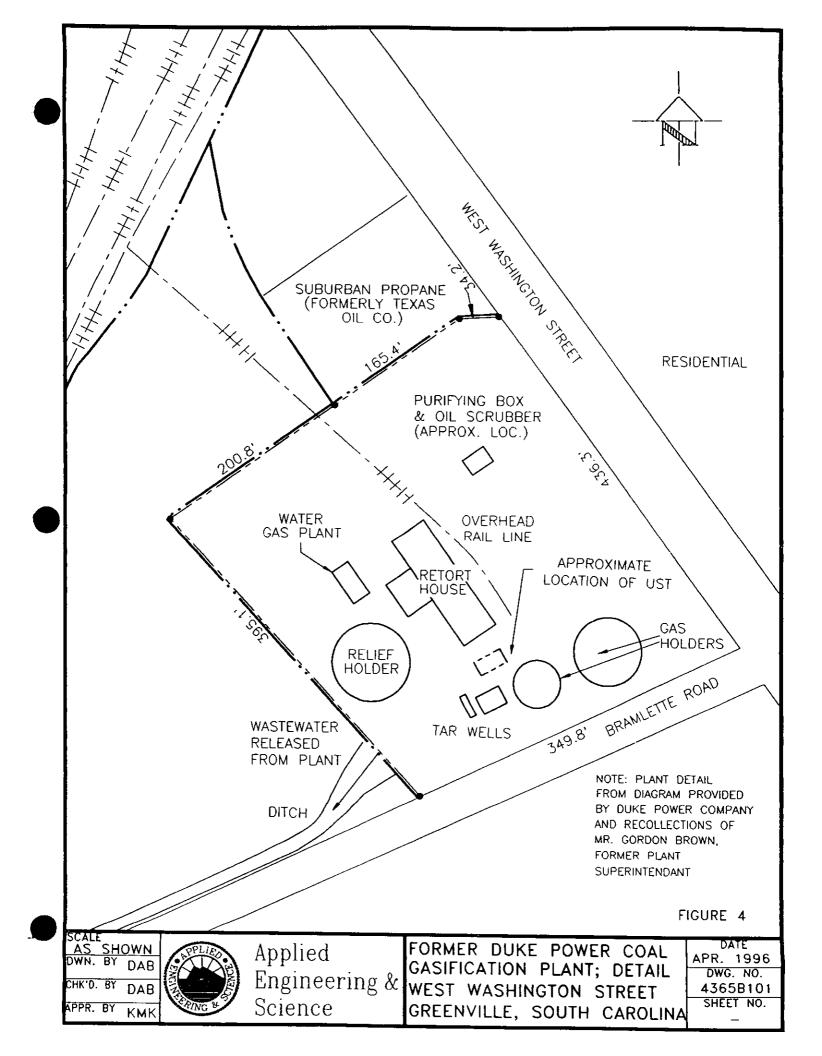
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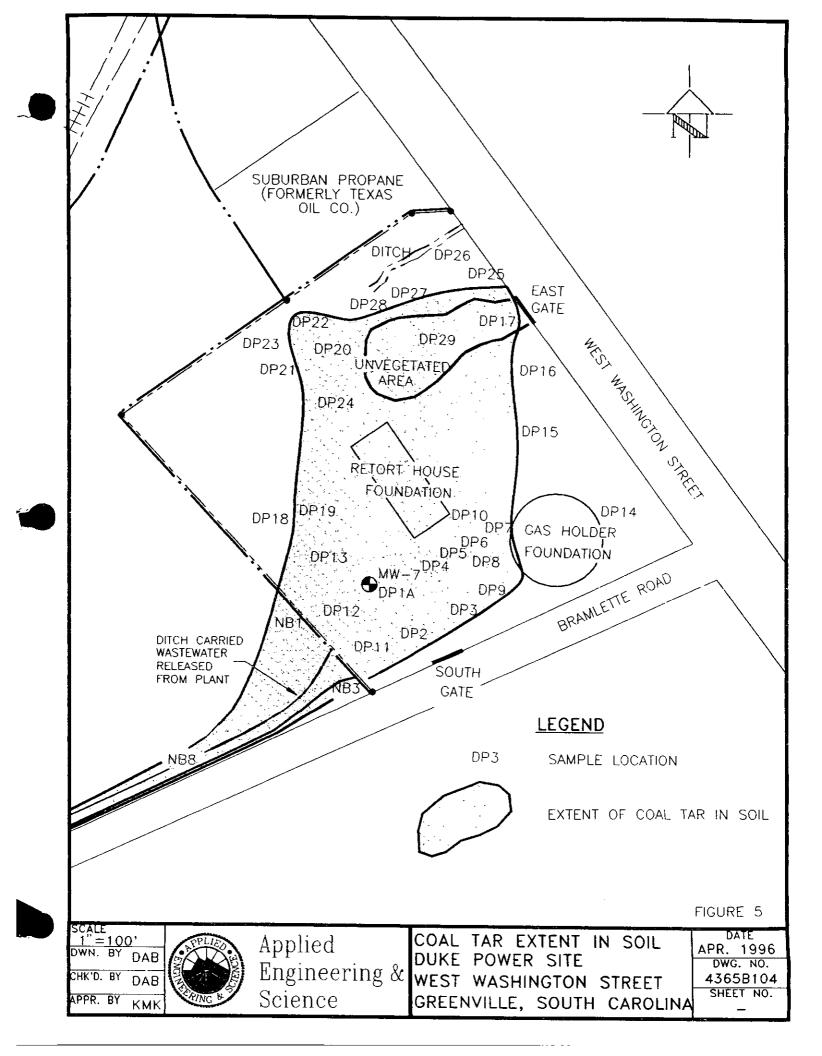
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MONITORING WELL LOCATION	**. 		
SAMPLE LOCATION (SOIL OR S	URFACE WATER)		
SURFACE WATER FLOW DIRECTI	ON		
SPRING OR OTHER DISCHARGE			
· · · · · · · · · · · · · · · · · · ·			
			FIGURE 3

SURFACE	FLOW DIAGRAM	DWG.	NO	436	5B108	8
PHASE II	SITE INVESTIGATION	SHEET	NO.	1	of	1





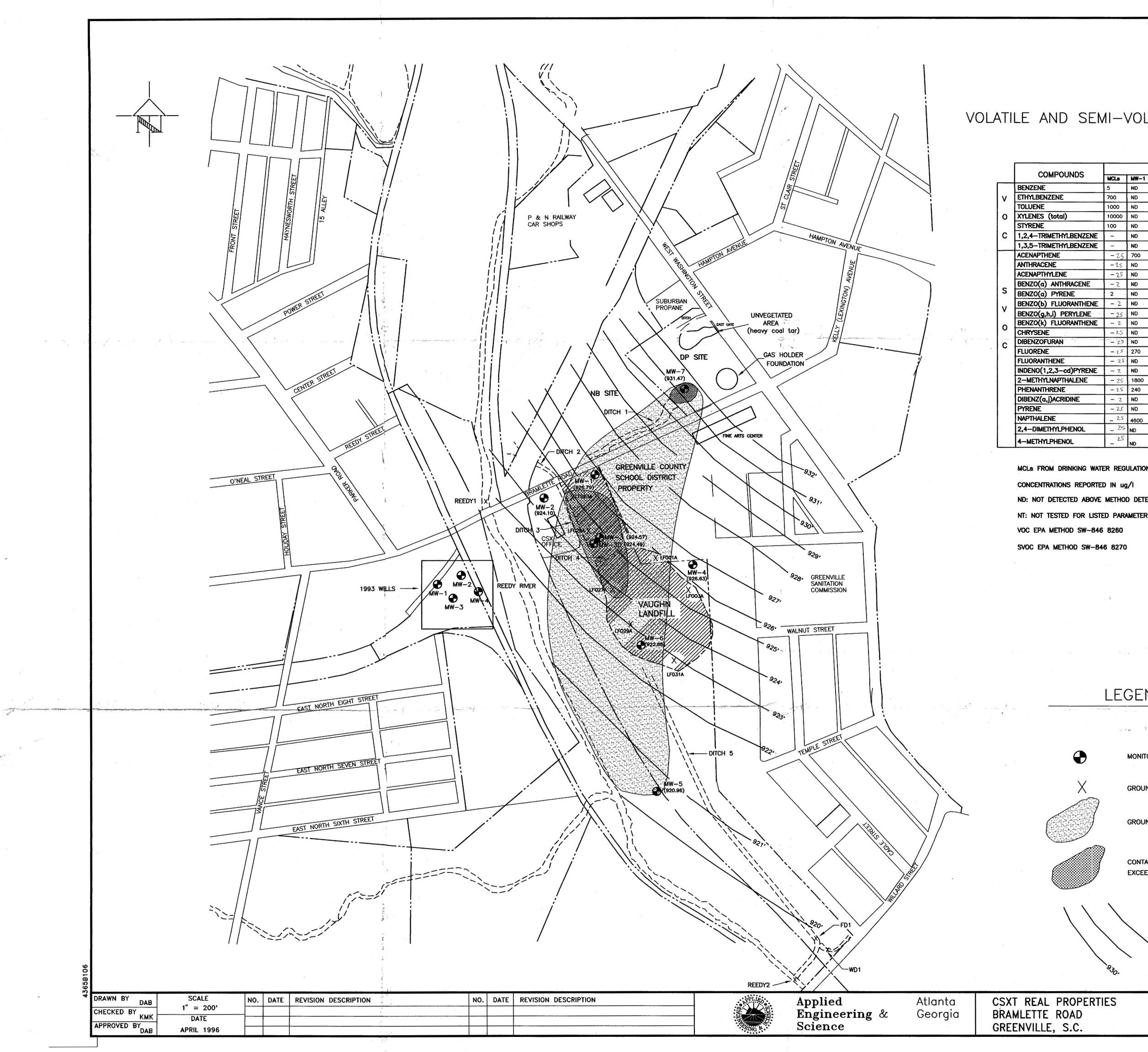


TABLE 2 VOLATILE AND SEMI-VOLATILE COMPOUNDS IN GROUNDWATER SAMPLES

				1996	SAMP	LES						1995	SAMPL	ES		
	MCLs	MW-1	MW-2	MW3	MW-3D	MW-4	MW-5	MW-6	MW7	LF001A	LF003A	LF023A	LF025A	LF027A	LF029A	LF031A
	5	ND	ND	160	1100	ND	ND	ND	680	ND	ND	770	700	84	ND	ND
	700	ND	ND	100	380	ND	ND	ND	ND	ND	ND	340	280	20	ND	ND
	1000	ND	ND	140	160	ND	ND	7	ND	ND	ND	460	45	32	ND	ND
	10000	ND	ND	148	330	ND	ND	10	ND	ND	ND	520	250	58	ND	ND
	100	ND	ND	50	14	ND	ND	ND	ND	ND	ND	55	ND	ND	ND	ND
ZENE		ND	ND	50	82	ND	ND	8	ND	ND	ND	ND	ND	ND	ND	ND
ZENE		ND	ND	17	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	- 25	700	ND	120	ND	ND	ND	150	ND	NT	NT	60	NT	20	NT	NT
	-25	ND	ND	ND	ND	ND	ND	120	ND	NT	NT	50	NT	ND	NT	NT
	- 25	ND	ND	570	ND	NÐ	ND	360	ND	NT	NT	500	NT	ND	NT	NT
NE	- 2	ND	ND ·	ND	ND	ND	ND	ND	ND	NT	NT	ND	NT	ND	NT	NT
	2	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	10	NT	ND	NT	NT
IENE	- 2	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	ND	NT	ND	NT	NT
NE	- 25	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	ND	NT	ND	NT	NT
IENE	- 2	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	ND	NT	ND	NT	NT
	- 2.5	ND	ND	ŇĐ	ND	ND	ND	ND	ND	NT	NT	ND	NT	ND	NT	NT
معدائل والمراجع	- 25	ND	ND	ND	ND	ND	ND	220	ND	NT	NT	40	NT	ND .	NT	NT
	- 25	270	ND	180	ND	ND	ND	250	ND	NT	NT	170	NT	10	NT	NŤ
,	- 2.5	ND	ND	ND	ND	ND	ND	130	ND	NT	NT	ND	NT	ND	NT	NT
RENE	- 2	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	ND	NT	ND	NT	NT
E	- 25	1800	ND	820	1800	ND	ND	330	130	NT	NT	1400	NT	40	NT	NT
	-25	240	ND	230	ND	ND	ND	360	ND	NT	NT	200	NT	10	NT	NT
	- 2	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	ND	NT	ND	NT	NT
	- 25	ND	ND	ND	ND	ND	ND	97	ND	NT	NT	60	NT	ND	NT	NT
	_ 25	4600	ND	15000	9300	ND	12	1800	2400	NT	NT	2200	NT	400	NT	NT
-	_ 25	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	ND	NT	50	NT	NT
	2.5			,												
	-	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	10	NT	NT	NT	NT

MCLs FROM DRINKING WATER REGULATIONS AND HEALTH ADVISORIES; Office of Water, USEPA, May 1995

ND: NOT DETECTED ABOVE METHOD DETECTION LIMITS

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MONITORING WELL LOCATION

GROUNDWATER SAMPLE LOCATION

GROUNDWATER CONTAMINANT PLUME (ESTIMATED)

CONTAMINANT CONCENTRATIONS IN GROUNDWATER EXCEEDING MAXIMUM CONTAMINANT LIMITS (MCLs)

POTENTIOMETRIC SURFACE CONTOURS

EXTENT OF GROUNDWATER CONTAMINATION DWG. NO 4365B106 PHASE II SITE INVESTIGATION SHEET NO. 1 of 1

FIGURE 7



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Notes

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APPENDIX B

PHASE I WORKPLAN



WORKPLAN

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SOIL, SEDIMENT, AND GROUNDWATER SAMPLING

CSX/VAUGHN LANDFILL

CSX TRANSPORTATION

Greenville, SC

October 1994



SOIL, SEDIMENT, AND GROUNDWATER SAMPLING

CSX/VAUGHN LANDFILL

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CSX Transportation Greenville, South Carolina

October, 1994

APPLIED ENGINEERING & SCIENCE, INC.

Atlanta, Georgia

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I. INTRODUCTION

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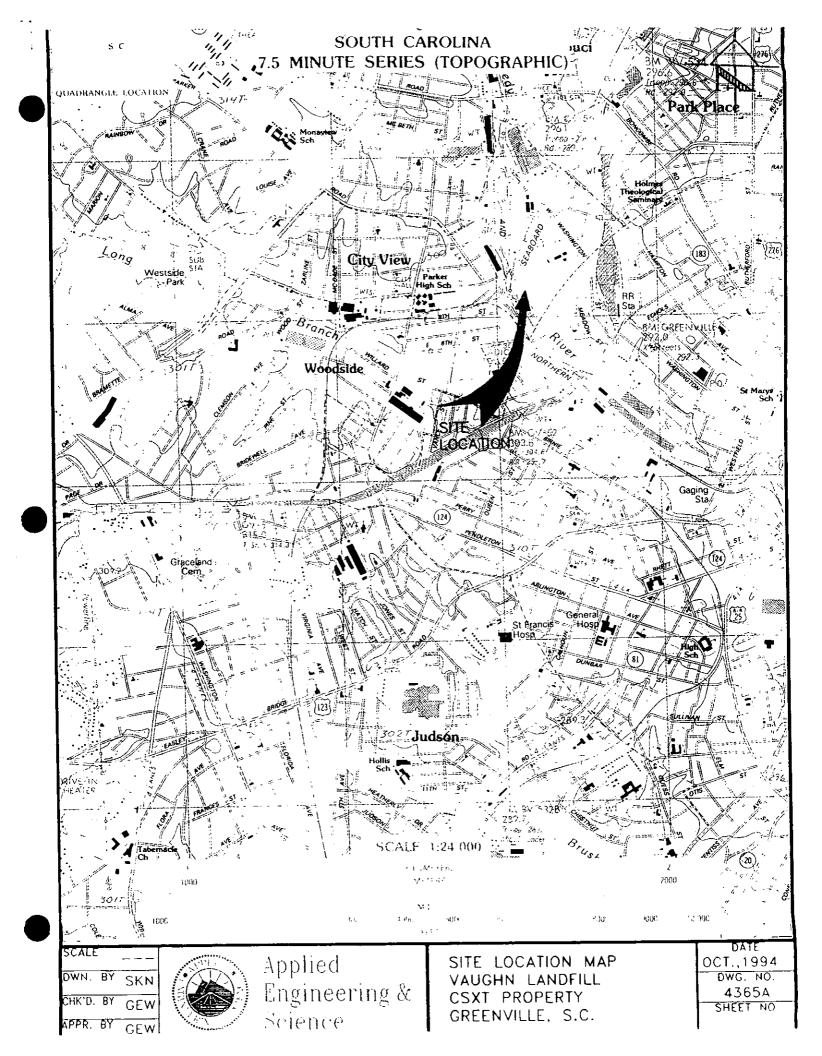
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On August 24, 1994, the South Carolina Department of Health and Environmental Control (DHEC) notified CSX Transportation by certified mail of the departments investigation of an unpermitted landfill on CSX property (the Site) in Greenville, South Carolina. **Figure 1 - Site Location Map**, indicates the location of the Site west of the city of Greenville. DHEC, along with the U.S. Army Corps of Engineers, visited the Site in Spring, 1994, noticed leachate and a sludge-like material at the base of the landfill and in the surrounding wetlands, and collected a sample. Laboratory analysis of the sample indicated that a hazardous constituent release to the environment had occurred. In a letter to CSX dated August 24, 1994, DHEC requested a work plan from CSX to assess vertical and horizontal impact to the environment in soil and groundwater from landfilling and other activities on the property. A copy of the DHEC letter is included in Appendix A - DHEC Letter to CSX.

A. Site Description

The Site is located on Bramlette Road approximately one (1) mile west of the city of Greenville, South Carolina in Greenville County. CSX Transportation property includes land on both sides of Bramlette Road, both sides of the Reedy River, and right-of-ways which contain trackage. The landfill Site is contained on property south of Bramlette



Road and east of the Reedy River. Figure 2 - Site Plan, is a copy of a Greenville County tax map indicating the layout of the property which contains the landfill in relation to the Reedy River and Bramlette Road.

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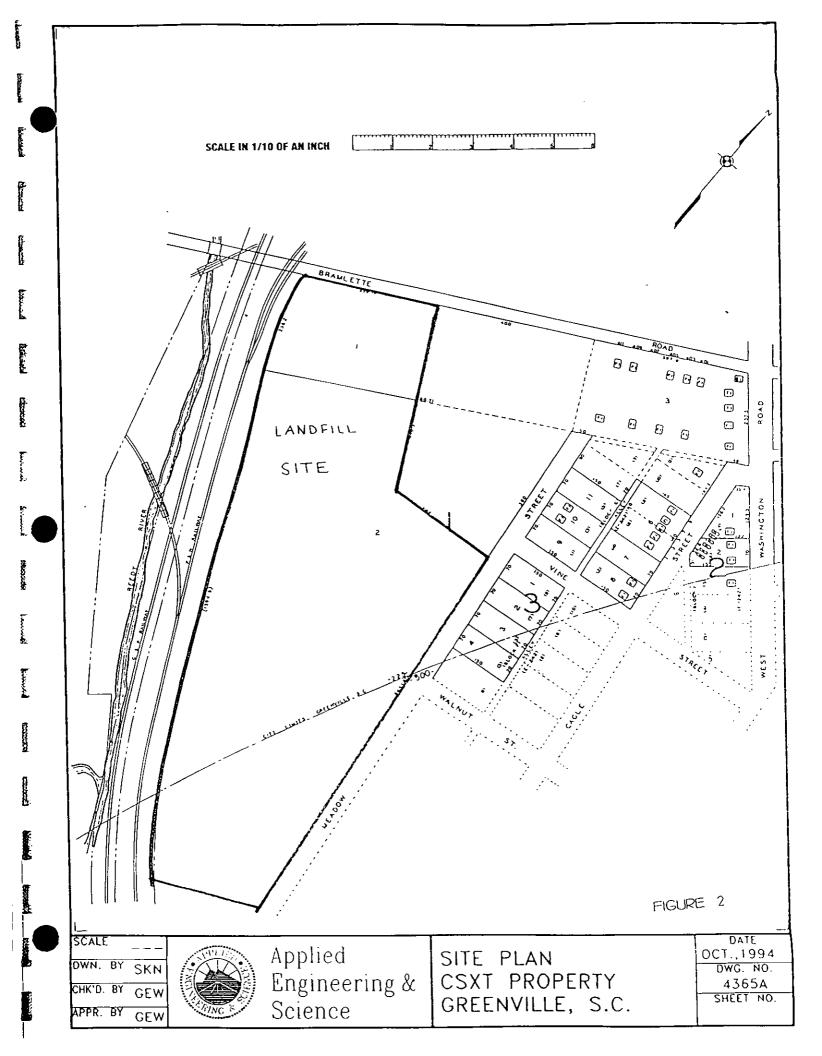
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This section of Greenville contains light industry, schools, and residences along with several rail facilities and supporting trackage. CSX maintains a small office east of the river.

#### **B.** Landfilling Activities

The CSX property off Bramlette Road has been used as a construction debris landfill for at least six (6) years. According to Mr. Robert Vaughn, Vaughn Construction and Demolition Company of Greenville has been the primary user of the landfill since 1987. Some of the materials noted during a Site visit by AES include concrete, bricks, wood, plastic, metals, roofing materials, insulation, and glass. Approximately seven (7) acres of the Site have been filled with debris to an average depth of eight (8) feet. Access to the Site is from Bramlette Road through a locked gate.

The fill area has been cut through by a ditch which allows water to flow from the wetland on the east side of the landfill to the floodplain and into the Reedy River to the west. This ditch is located approximately four hundred (400) feet from the entrance. A dirt



covered culvert across the ditch allows access to the back of the landfill. A large portion of the landfill has been covered with a thin layer of soil to allow passage of dump trucks to the rear where dumping continued until recently. The back one hundred (100) feet or so of the fill area is uncovered.

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#### C. Hydrogeology

The floodplain and adjoining wetlands (as delineated by the Corps of Engineers) south of Bramlette Road and east of the river are at an elevation of 285 feet above mean sea level (msl). The landfill covers approximately seven (7) acres on the property.

The Reedy River borders the property one hundred (100) feet to the west. Depth to groundwater in the area of the Site is within ten (10) feet, as determined by monitoring wells installed across the river on adjacent CSX property (described in AES report "Monitoring Well Installations and Soils Investigation" submitted to DHEC in July, 1993). Groundwater flow is expected to be toward the river in a southwesterly direction. Soils in the area consist of Chewacla (Cv) well drained to poorly drained silty, clay loams and a combination of Cartecay and Chewacla (Ca) sandy loam and silty clay. Both are alluvium found in floodplains and are listed as hydric by the USDA Soil Conservation Service (SCS). Copies of the soils map and the hydric soils list are included in Appendix B - Soil Survey. Thicknesses of the soils are reported to average fifty four (54) feet above the granite gneiss bedrock. The hydraulic and sorptive characteristics of these clay

soils generally makes them poor conductors of groundwater; therefore, groundwater flow and contaminant migration are normally slow. Hydraulic conductivity of these materials typically ranges from  $10^{-5}$  to  $10^{-7}$  cm/s and attenuation of contaminants is relatively high.

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#### D. Well Survey

A well survey conducted by AES in 1992 during installation of the monitoring wells referenced in the report in Section I-C above indicated that there were no registered production wells (potable or industrial) within a 1/2 mile radius of the CSX property west of the Reedy River. That property is less than one thousand (1,000) feet from the landfill Site. Information for this survey was provided by the South Carolina Water Resources Commission, Greenville office, in a computer printout, and by the Commission report entitled "Ground-Water Resources of Greenville County, South Carolina; Bulletin no. 38" published in 1968. This information is included in Appendix C - Well Survey.

#### **II. PURPOSE, OBJECTIVES, AND SCOPE**

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In October, 1994 CSX Transportation, in response to the DHEC request, retained Applied Engineering and Science, Inc. (AES) to prepare a workplan for the assessment of vertical and horizontal impact to the environment from landfilling activities at the Bramlette Road Site.

#### A. Purpose

The primary purpose of this investigation is to provide DHEC and Corps of Engineers with an analytical data set from which decisions with regard to appropriate future actions, if any, for the site can be based. The data set must be comprehensive and of defendable quality so as to assess the current character of the material which has been placed on the site. The initial phase of the investigation is addressed in this work plan and the data collected during this initial phase will be used to:

1. Assess the character of the material

2. Identify the chemicals of concern for the site

3. Provide information on which decisions for the placement of monitoring wells

and/or additional material sampling needs can be made

#### B. Objectives

The objectives of the work to be performed are as follows:

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- · Assess surface water and sediment content in the wetland east of the fill area
- · Assess the quality of the native soils and groundwater beneath the fill
- Collect representative samples of leachate on the perimeter of the fill
- Assess surface water and sediment content in the floodplain and wetlands west of the fill area
- Identify surface pathways by which migration of material may enter the Reedy River
- Identify and characterize possible sources of contamination within the fill
- · Assess field and analytical data to determine additional information and/or

sampling requirements

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• Report findings and recommendations to CSX and DHEC

#### C. Scope

The scope of this investigation includes direct observation, surface water sampling, sediment sampling, soil sampling, leachate collection, head space analysis, laboratory analysis, data review and analysis, and report preparation. Details of the scope of work for this investigation are given in Section III of this workplan.

#### **III. CHEMICAL DATA ACQUISITION**

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#### A. Data Quality Objectives

To meet the primary objectives of the initial site investigation, AES plans to implement a data quality objectives (DQO) program that includes four categories of analytical methods and data uses. The various categories within the DQO program are presented in **Table 1**. This table identifies typical data uses and analytical levels. These levels range from a basic field survey technique (EPA Level 1) used as an aid to the investigation process to very comprehensive laboratory analysis (EPA Level IV), as might be required for development of remedial alternatives or a risk assessment. This DQO program reflects EPA's DQO format as presented in <u>Data Quality Objectives for Remedial Response</u> Activities, EPA 540/G-87/003A, March 1987.

The DQO program is based on integration of data use categories with a menu of analytical levels that complement one another. Selective implementation of this program can benefit the investigation process by providing quick turnaround of data with no loss of data quality on critical samples. This method is used to accomplish the objectives of the investigation by effective use of resources and manpower, and by channeling samples of critical nature into the analyses that are of suitable quality.

AES will employ two independent analytical resources during the investigation. As previously shown in **Table I**, those include field surveys (Level 1) and laboratory analysis of samples at a DHEC approved analytical laboratory (Level IV).

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- 1. Level I Field Surveys For Level I, field surveys, portable organic vapor analyzers will be used to survey samples taken by the investigation team at the time of collection. These real-time analyzers will be instruments such as HNu Systems Model PI#101 and Foxboro's Model 128 organic vapor analyzers. Data from the sample surveys, along with pertinent data concerning the samples, will be logged in the field log. The procedures for surveying samples collected for field surveys will be EPA Method 3810, Standard Head Space Analysis, 3rd Edition, November 1986. Data generated from the field monitoring will typically be used to make decisions concerning the execution of the investigation, such as approximating the relative degree of contamination to assist the investigation activities or providing a general screening before laboratory analysis of the collected samples.
  - Level IV Laboratory Analysis The purpose of Level IV analysis is to broaden the characterization of contaminants. Level IV analysis may be required to document remediation of a given area or to obtain data suitable for risk assessment. Samples collected during the investigation at the CSX/Vaughn Landfill site will

require the level of completeness and quality offered by Level IV analysis. Because the samples collected during this investigation will be used to identify and characterize source materials and to make future decisions on chemicals of concern at the site, all samples collected during this investigation will be analyzed under Level IV procedures. The table below presents an analytical suite of parameters typical of a Level IV analysis.

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| Method                         |  |  |  |
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|                                |  |  |  |
| EPA Method 8240/8260           |  |  |  |
| EPA Method 8270                |  |  |  |
| EPA Method 6010/7060/7471/7841 |  |  |  |
| EPA Method 8080                |  |  |  |
| EPA Method 8150                |  |  |  |
|                                |  |  |  |

#### TABLE 1 SUMMARY OF ANALYTICAL LEVELS APPROPRIATE TO DATA USES

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| DATA USES                                                                                                                           | ANALYTICAL LEVEL | TYPE OF ANALYSIS                                                                                                                             | LIMITATIONS                                                                                                  | DATA QUALITY                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Site characterization<br>monitoring during<br>implementation                                                                        | Level I          | Total organic/inorganic<br>vapor detection using<br>portable instruments<br>Field test kits                                                  | instruments respond to<br>naturally occurring<br>compounds                                                   | if instruments calibrated<br>and data interpreted<br>correctly, can provide<br>indication of contamination |
| Site characterization<br>evaluation of alternatives<br>engineering design<br>monitoring during<br>implementation                    | Level II         | Variety of organics by GC;<br>inorganics by AA; XRF<br>Tentative ID; analyte<br>specific<br>Detection limits vary from<br>low ppm to low ppb | Tentative ID<br>Techniques/instruments<br>limited mostly to volatiles,<br>metals                             | Dependent on QA/QC<br>steps employed<br>Data typically reported in<br>concentration ranges                 |
| Risk Assessment<br>site characterization<br>evaluation of alternatives<br>engineering design<br>monitoring during<br>implementation | Level III        | Organics/inorganics using<br>EPA procedures other than<br>CLP, can be analyte<br>specific<br>RCRA characteristics tests                      | Tentative ID in some cases<br>Can provide data of same<br>quality as Level IV                                | Similar detection limits to<br>CLP<br>Less rigorous QA/QC                                                  |
| Risk Assessment<br>PRP determination<br>evaluation of alternatives<br>engineering design                                            | Level IV         | TCL organic/inorganics by<br>GC/MS; AA; ICP<br>Low ppb detection limit                                                                       | Tentative identification of<br>non-TCL parameters<br>Some time may be required<br>for validation of packages | Goal is data of known<br>quality via CLP<br>Rigorous QA\QC                                                 |

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B. Contaminants of Concern

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Sample analysis conducted by DHEC on a sample collected at the Site revealed the presence of *toluene* at 3.04 mg/kg. Toluene is a petroleum derived organic constituent and is toxic through exposure by inhalation, ingestion, or absorption. No other compounds were identified in the sample. However, a representative of the U.S. Army Corps of Engineers mentioned *creosote* as a possible contaminant. The Site Health and Safety Plan will be written to address possible exposure to these contaminants and will be updated if additional compounds are suspected or identified.

#### C. Sample Locations

Three separate areas have been designated for sample collection activities on the site. Area 1 includes floodplain, wetlands, and woodlands east of the fill area and south of Bramlette Road up to the adjoining property along Meadow Street. Area 2 includes the actual fill material which covers approximately 6.6 acres and includes the drainage ditch through the center of the fill. Area 3 includes the floodplain, wetlands, and woodlands west of the fill, south of Bramlette Road, and east of the Reedy River. CSX property extends south past the end of the landfill and into the woodland. The extent of investigation to the south will be determined from field observations during site opcrations. **Figure 3** - **Sample Locations** indicates the proposed sample locations for each area. Sediment samples will be collected in the wetlands and floodplain surrounding the fill area using a hand auger, stainless steel spoon, or shelby tube, depending on conditions. Surface water will be collected using a clean glass vessel. A Geoprobe systems truckmounted rig will be used to advance collection rods into the landfill to collect soil samples at the fill/soil interface and groundwater samples at the water table. No monitoring well installations are planned at this time. Data review of the samples collected by hand auger and Geoprobe will provide a better indication of well placement.

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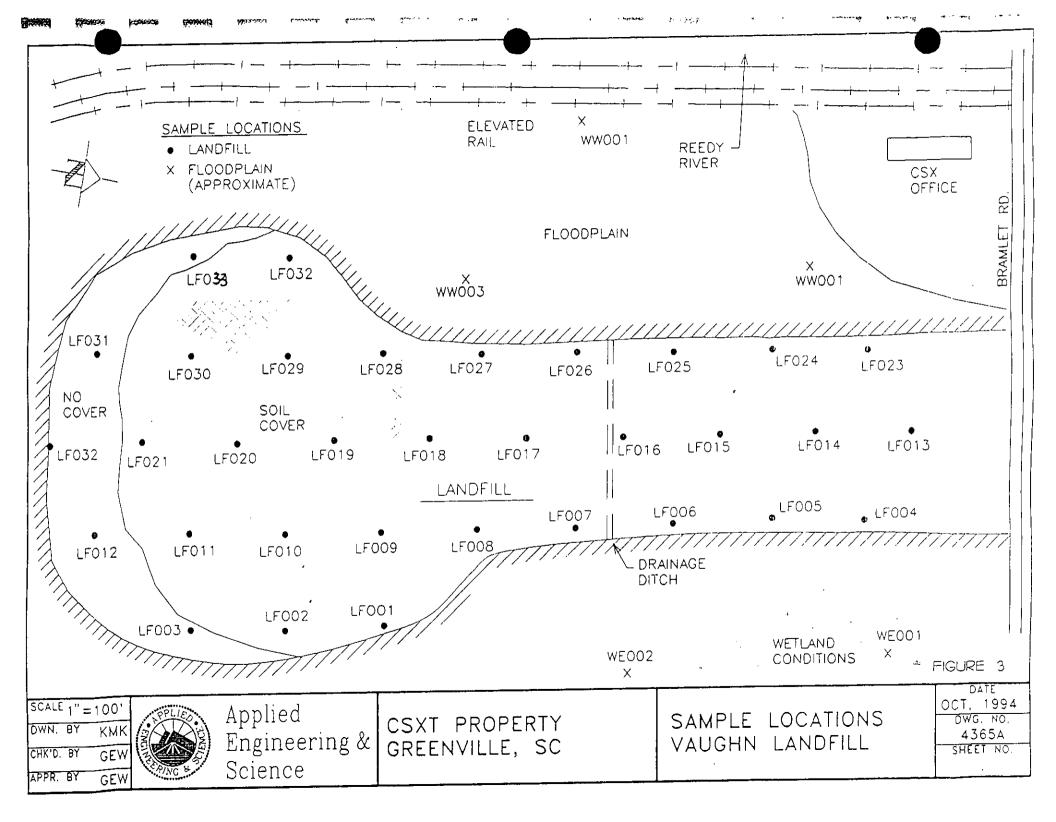
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Sample parameters include volatile organics (EPA Method 8240/8260), TAL metals (EPA Method 6010, and pesticides/herbicides (EPA Methods 8080/8150). Table 2 - Sample Designations indicates the sample designations, sample type (soil, water, sediment, etc.), and the analytical parameters.

 <u>Area 1 - Wetlands east of the fill</u> - a minimum of two sediment and two surface water samples will be collected to assess the impact from possible dumping directly in the area or from leachate migrating from the fill. A representative of the US Army Corps of Engineers observed sludge-like material in the surface waters in the area. Samples to be collected by AES will take into account any visible sludgelike material during field operations. The locations noted on Figure 2 are proposed and may vary depending on site conditions, access, and field observations.



#### TABLE 2 SAMPLE DESIGNATIONS CSX\VAUGHN LANDFILL GREENVILLE, SC AES, October 1994

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| SAMPLE ID          | SAMPLE TYPE/MATRIX      | ANALYTICAL PARAMETERS      |
|--------------------|-------------------------|----------------------------|
| WE001 <sup>1</sup> | Surface water/sediment* | 8240/8260, 6010, 8080/8150 |
| WE002              | Surface water/sediment* | 8240/8260, 6010, 8080/8150 |
| WW001 <sup>2</sup> | Surface water/sediment* | 8240/8260, 6010, 8080/8150 |
| WW002              | Surface water/sediment* | 8240/8260, 6010, 8080/8150 |
| WW003              | Surface water/sediment* | 8240/8260, 6010, 8080/8150 |
| LF001 <sup>3</sup> | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF002              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF003              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF004              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF005              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF006              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF007              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF008              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |
| LF009              | Soils/groundwater       | 8240/8260, 6010, 8080/8150 |

#### TABLE 2 SAMPLE DESIGNATIONS CSX\VAUGHN LANDFILL GREENVILLE, SC AES, October 1994

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| SAMPLE ID | SAMPLE TYPE/MATRIX | ANALYTICAL PARAMETERS      |
|-----------|--------------------|----------------------------|
| LF010     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF011     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF012     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF013     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF014     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF015     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF016     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF017     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF018     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF019     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF020     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF021     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF022     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF023     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF024     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |

# TABLE 2 SAMPLE DESIGNATIONS CSX/VAUGHN LANDFILL GREENVILLE, SC AES, October 1994

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| SAMPLE ID | SAMPLE TYPE/MATRIX | ANALYTICAL PARAMETERS      |
|-----------|--------------------|----------------------------|
| LF025     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF026     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF027     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF028     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF029     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF030     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF031     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF032     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |
| LF033     | Soils/groundwater  | 8240/8260, 6010, 8080/8150 |

\* Sludge/leachate may also be collected if observed (same parameters apply)

1. WE - Wetland East

2. WW - Wetland West

3. LF - Landfill

2. <u>Area 2 - Landfill</u> - Sample locations in the fill area have been proposed on a grid which is shown in Figure 2. The grid will be laid out across the fill area prior to sample collection. Thirty three sample locations are shown on the grid. The actual number of samples may vary according to site conditions and accessibility but collection of thirty samples is anticipated. This sampling plan is aimed at providing the best coverage to attempt to locate any hot spots within the fill and to provide data for additional sample collection at a later date.

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A Geoprobe unit will advance collection rods through the fill material, identify the fill/native soil interface, and collect a soil sample from native soils at the natural surface. Following soil collection, the rods will be advanced to groundwater. Approximate depth to the water table will be determined and noted in the field book. Samples will be collected using a peristaltic pump, placed in precleaned sample containers with appropriate preservatives, and labeled. Appendix D - Geoprobe is a summary of Geoprobe system capabilities.

AES anticipates that advancing the Geoprobe through the fill material may be extremely difficult due to the amount of large construction type material involved. The grid will be used as a basis for sampling locations but actual sampling points may vary. The final boring locations will be noted on a revised site drawing in relation to a fixed surveyed datum point which will be installed before sampling activities begin.

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3. <u>Area 3 - Wetlands, floodplain west of the fill</u> - DHEC detected leachate from the fill and a sludge-like material in this area and collected a sample which revealed the presence of toluene at 3.04 mg/kg. A minimum of three sediment and three surface water samples will be collected in this area. A leachate sample will be collected and a full suite of analyses run to confirm the presence of toluene and to identify other contaminants present. The analytical results will be reviewed to assess impact to wetland soils and surface waters which enter the Reedy River.

# **D.** Sampling Procedures

 Quality Control - This section provides a discussion of the procedures to be utilized for all the sampling that is to be completed during this preliminary investigation at the CSX Vaughn Landfill. The methods to be utilized in collecting the samples for this study will strictly adhere to the EPA Region IV <u>Standard Operating</u> <u>Procedures and Quality Assurance Manual</u>, April, 1986. The standard operating procedures utilized by AES personnel in all sampling activities follow a standardized QA/QC procedure. The procedures are documented in the AES <u>Field</u> <u>Quality Assurance/Quality Control Procedures Manual</u> (QA/QP). Groundwater, surface water, sediment and soil samples will be collected. The purpose of collecting surface water, sediment and subsurface soil samples is to prepare a basis for additional sample collection and to compare future analytical In addition to utilizing standard operating procedures, other means will results. be utilized to reduce variability in sampling and handling procedures. The sampling containers will be precleaned prior to use. Shipping blanks will detect problems associated with the handling and shipment of samples. Shipping blanks will be included with sample containers provided by the DHEC certified laboratory chosen to perform sample analyses. Field blanks will be used to monitor decontamination techniques. Field blanks will be obtained by running analyte free deionized water through sample collection equipment after decontamination has been completed (Geoprobe rods and hand auger buckets). Field blanks will be collected at a rate of one (1) per sampling day.

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The samples will be shipped to the laboratory at the end of each sample day. At that point, the sample will remain in the custody of the laboratory until final disposal of the samples. The laboratory will be given the responsibility of final disposal of the samples.

2. <u>Documentation</u> - An integral part of the sampling effort will be the documentation of all field operations. The documentation process will include completion of

sample labels, field logbook and chain of custody forms. Immediately after collecting a sample, a completed sample label will be affixed to the same container. The label will contain the following information:

- Sample identification number
- AES Job Number
- Name of Sample collected
- Date and time of collection
- Project location

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- Preservatives used (if any)
- Parameters requested

A logbook will be maintained by sampling personnel to document field activities. The following information will be documented in the field logbook:

- Persons present onsite, their title and affiliation
- Date of each day onsite
- The times on and offsite
- The time each sample is collected or other significant events occur
- The daily weather conditions and approximate temperatures
- All equipment to be used during field activities and their decontamination

procedures (if applicable)

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• Any comments, observations, discrepancies or changes in sampling procedures

• Groundwater levels, method of measurement and where the measurement is taken, (approximate for Geoprobe sampling)

• The type of sample collected, (groundwater, soil) whether it is a grab or composite sample

• Appearance, odor, pH, and the temperature (if required) of the sample

• The number and type of sample containers to be used

• The number of bails to be used to collect each water sample

• All data related to the calibration of field equipment

• Sample preservatives to be used, type of packaging, where the samples are to be sent

A chain-of custody form will be completed for each set of samples collected in order to document sample possession from the time the samples are sent to the analytical laboratory. All samples will be transported to the laboratory by overnight courier the same day they are collected.

### E. Sample Designation

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Figure 3 indicates the location and designations of thiry eight (38) proposed sampling points. AES proposes collecting two samples in the wetland east of the fill, thirty three samples within the fill, and three samples in the floodplain west of the fill. As explained in Section III-C above, the number and actual locations of samples collected may vary depending on site conditions, obstructions, and location of any suspected contaminants noted during field observations. The exact location of sampling points will be documented using a reference point, in this case the surveyed datum point tied to a USGS bench mark. Samples will be designated as follows:

<u>WE001</u> - Samples designated with the alpha prefix WE (wetland east) will be those collected within the wetlands or adjoining areas east of the fill. A sequential numeric code will also be assigned to each sample and appropriately recorded on all field documentation. A minimum of two sediment and two surface water samples shall be collected from this area.

<u>LF001</u> - Samples collected below the fill material at the fill/native soil interface shall be designated with the alpha prefix LF (landfill) and sequentially numbered. A minimum of thirty samples shall be collected in the fill material. <u>WW001</u> - Samples collected in the wetlands, floodplain, or adjoining areas west of the fill shall be designated with the alpha prefix WW (wetland west) and sequentially numbered. A minimum of three samples shall be collected in this area.

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# F. Decontamination Procedures

Before sampling activities begin, and between sampling intervals and locations, decontamination of equipment shall be performed. A temporary decontamination area will be constructed using 4" x 4" timbers and 6-mil visqueen at the north end of the landfill off Bramlette Road. All downhole and sample collection equipment shall be cleaned using laboratory-grade detergent and potable water. Isopropanol and 1% dilute hydrochloric acid will follow and precede deionized water rinses. A field blank will be collected at least once per day from rinseate of deionized water from selected equipment. Wash water collected in the decon area will be pumped into drums and labeled for proper disposal.

All personnel handling downhole equipment, sampling tools, or sample bottles will be required to wear disposable vinyl or latex gloves.

# IV. REPORT PREPARATION

A report will be prepared and submitted to DHEC following receipt and analysis of laboratory data. The report will include details of all field activities, record reviews, sample collection, and sample data results. Tables and graphics will be submitted which indicate the types and extent of contaminants found during the field investigation. Recommendations will be presented for additional sampling or remediation of affected soils or groundwater.

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# **V. SCHEDULE OF EVENTS**

Following DHEC approval of the workplan, field activities will proceed within ten (10) working days. Field operations are expected to take approximately one (1) week. Laboratory results are expected to be received within two (2) weeks of sample submittal. Because of the large number of samples to be collected and data to be reviewed, AES expects thirty (30) days will be required to prepare and submit a report to DHEC. Total time between the initiation of field activities and submittal of the report to DHEC is projected to be seven (7) weeks. Factors affecting this schedule include unforseen field conditions and/or additional sampling requirements which involve a return to the Site.

# APPENDIX A

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# SCDHEC LETTER TO CSX

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Commissioner: Douglas E. ..... yant

Board: John H. Burriss, Chairman Richard E. Jabbour, DDS, Vice Chairman Robert J. Stripling, Jr. Scoretary William E. Applegare, III Toney Graham, Jr., MD Sandra J. Molander John B. Pate, MD

Promoting Health, Protecting the Environment

August 24, 1994

### CERTIFIED MAIL P 705 309 554 NETURN RECEIPT REQUECTED

Mr. Marshall Williams CSX Railroad 6737 Southpoint Drive South Jacksonville, FL 32216

> Re: Bramlette Rd. Property Greenville County

Dear Mr. Williams:

In conjunction with the US Army Corps of Engineers, this office has been investigating property owned by CSX Railroad on which an unpermitted construction and demolition landfill has been operated. The property is located adjacent to the Reedy River near Greenville, SC.

During a gite vicit on April 19, 1994, Department personnel observed leachate entering a drainage ditch/ small creek at the site (see attached location map). The leachate was black and had a hydrogen sulfide odor. On Hay 3, 1994 Department personnel collected a sample of the leachate to be analyzed for volatile organic compounds and base/neutral acid extractables. Toluene was detected in the sample at a concentration of 3 04 mg/kg. Attached please find the analytical results.

During a site visit on May 31, 1994. Department and Corps of Engineers personnel observed a sludge-like material in the wetlands area located between the landfill and the railroad tracks. The material was black with a strong petroleum odor. A similar material has been observed by Department and Corps of Engineers personnel during other site visits.

Based on the site visits and the analytical results, a release to the environment has occurred and soil and surface water (and possibly ground water) at the site have been impacted. It is not known at this time if the impact has been caused by one or several sources. CSX must conduct an assessment of the site to determine the horizontal and vertical extent of contamination. Please be advised that the analysis conducted on the leachate was not intended to identify all contaminants at the site but was intended to provide an indication of impact to the environment. CSX must identify which compounds are present and must determine the level of contamination present at the site.

ENVIRONMENTAL QUALITY CONTROL, APPALACHIA II DISTRICT 301 UNIVERSITY RIDGE, SUITE 5800, GREENVILLE, S.C. 29601-3677 PHONE: 241-1090 FAX: 241-1092

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Please submit a work plan to this office for approval by October 17, 1994. The work plan should include the methods for determining the types and extent of contaminants propent and the locations of samples to be taken.

Thank you very much for your help in this matter. If you have any questions, please contact me at (803) 241-1090.

Sincerely,

Mary and woon

Mary Anderson Environmental Quality Manager

cc: Fred Veal, Army Corps of Engineers

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| ocation -5 UN INN LANDEN                                                     | H. L |               | County   | <br>), <sub>CK<sup>+</sup>N<sup>+</sup></sub> | -          |       |                   |
|------------------------------------------------------------------------------|------|---------------|----------|-----------------------------------------------|------------|-------|-------------------|
| Comments<br>Dateう・イソ<br>Sample Type: 1. Water 2. Soil/Sedime                 |      |               |          |                                               |            | indic | atos test requeel |
| Time Collected (Milit.)                                                      |      | 1015          |          |                                               |            |       |                   |
| Station No.                                                                  |      |               | ~        |                                               |            |       |                   |
| Lab. No.                                                                     |      | 1.5639        | 484=1    |                                               |            |       |                   |
| Pesticides/PCBs                                                              |      |               |          |                                               |            |       |                   |
|                                                                              |      |               |          |                                               |            |       |                   |
|                                                                              |      |               |          | <br>                                          | . <u> </u> |       | · · ·             |
|                                                                              |      |               |          | <br>                                          |            |       | }<br>             |
|                                                                              |      |               |          | <br>                                          |            |       |                   |
| Herbicides                                                                   |      |               | ······   |                                               |            |       |                   |
|                                                                              |      |               |          | <br>                                          | <u></u>    |       |                   |
|                                                                              |      |               | <u> </u> | <br>                                          |            |       |                   |
|                                                                              |      |               |          | <br>                                          | · · ·      |       |                   |
| PCBs                                                                         |      |               |          | <br>                                          |            |       |                   |
|                                                                              |      | ·}-··-        |          | <br>                                          |            |       |                   |
| Base Neutral/Acid Extractables                                               | 7    | )             |          | <br>                                          |            |       |                   |
|                                                                              | -+   |               |          | <br><b> </b>                                  |            |       |                   |
| Volatile Organics                                                            | T    |               | <u></u>  | <br>                                          |            |       |                   |
|                                                                              | -4   | /             | <b></b>  | <br>t                                         |            |       |                   |
|                                                                              |      |               |          |                                               |            |       |                   |
| Petroleum Hydrocarbons                                                       |      |               | ~        |                                               |            |       |                   |
|                                                                              |      |               |          |                                               |            |       |                   |
|                                                                              |      |               |          | <u> </u>                                      |            |       | 1                 |
| Comments                                                                     |      |               |          | <br>                                          | ···-       |       |                   |
|                                                                              |      | <b>-</b> ·    |          | <br>                                          | • • •• ••  |       |                   |
|                                                                              |      | ÷             |          | <br>                                          |            |       | •<br>•            |
|                                                                              |      |               | ^.       | <br>                                          |            |       |                   |
| Date Received in Regional Laboratory                                         |      | -             | · · · ·  | <br>bу                                        |            |       |                   |
| Uste Roleased from Regional Laboratroy                                       | c    | :<br>1711 - 1 | r<br>rv  | <br>by                                        |            |       |                   |
| Date Received in Central Laboratory<br>Date Released from Central Laboratory | :*   |               | . , ,    | <br>by                                        | · · · · ·  | /     |                   |

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SEP 29 194 10147 PK REHE PROPERTY - JUA 213 AUDO TO OTOTOTOTO - LOS UN

| -* " " JOUTH CARGLENA DELARTMENT OF REALT | H AND ENVI     |                          |
|-------------------------------------------|----------------|--------------------------|
| * ANALYTICAL GERVICES DIVISIC             |                |                          |
| · * * * * * * * * * * * * * * * * * * *   | *****          | *****                    |
| ANDLE NUMBER 1 COOBS40427                 | WEUNESUA       | Y 206051 16182 1554      |
|                                           |                | CATE : CE/10/54 13:46:41 |
|                                           |                | CTED : 05/03/94 10:15:00 |
|                                           |                | EDILY : WATER            |
| SAMPLE DESCRIPTION : COX/VAUGHN LANDFILL  |                |                          |
| SAMPLE TYPE :                             |                |                          |
| ANALYSIS                                  | STORET         | RESLLI                   |
| N-NITRESEDIMETHYLAMINE MG/KG              | ·~             | <10.J                    |
| ANILINE MUZKO                             |                | く)しょし                    |
| PHENCL MEIKG                              | 79690<br>79560 | <10.0                    |
| SISCZ-CHECKUEINTL/CINCH ME/KU             | 79560          | <16.0                    |
| 2-CHLCRCPHENCL ME/KG                      | 79520          | <16.6                    |
| 1,3-DICHLORGEENZENE MG/KC                 | 7951c          |                          |
| 1,4-DICHLOROGENZENE MEZKE                 | 79517          |                          |
|                                           | ( 7 )   (      |                          |
| BENZYL ALCCHOL MG/KG                      | 2000           | <10.C                    |
| 1.2-CICHLORCBENZENE ME/KG                 | 75511          | •                        |
| S-WETHYLPHENCL MG/KG                      |                | <1C.C                    |
| BIS(2-CHLORCISCERCPYL)ETHER MG/KG         |                | <10.0                    |
| 4-METRYLPHENCE Merke                      |                | <10.0                    |
| N-NITROSODI-K-PROPYLANINE MG/KE           |                | <10.0                    |
| HEXACHLORGETHANE MEIKE                    | 7963ċ          | <10.0                    |
| NITRCEENZENE MG/KG                        | 79572          | < 1 C _ C                |
| <u>LC</u> OPHORCHE MC/KC                  | 7934ó          | <1C_C                    |
| NITROPHENOL MO/KO                         | 79529          | <10.0                    |
| 2.4-DINETHYL PHENCL MO/KO                 | 14326          | <10.0                    |
| BENICIC ACID MG/KG                        |                | <10.0                    |
| EIS(2-CHLORCETHOXY)METHANS MG/KG          |                | <10.0                    |
| 2,4-DICHLOSCPHENCL MC/KG                  | 78521          | <10.0                    |
| 1,2,4-TRICHLORCEENZENE MG/KG              |                | <16.0                    |
| NAPHTHALENE ME/KS                         | 79670          | <10.0                    |
| 4-CHLCRCANILINE ME/KG                     | 1.010          | <10.0                    |
| HEXACHLOROEUTADIENE MG/KE                 | 79034          | <16.0                    |
| 4-CHLCRC-3-METHYL PHENOL MG/KG            | 77034          |                          |
|                                           |                | <16.0                    |
| 2 2-METHYL NAPHTHALENE NG/KG              |                | <10.0                    |
| HEXACHLOROCYCLOFENTADIEN, MG/KG           | 29835          | <10.0                    |
| 2,4,6-TRICHLOROFHENCL MG/KO               | 75520          | <16.6                    |
| 2,4,5-TRICHLOSOFHENCL MG/KC               |                | <10.0                    |
| 2-CHLCRCNAPHTHALENE THE/KS                | 79527          | <1C.C                    |
| 2-NITROANILINE NG/KG                      |                | <10.0                    |
| OINETHYL PHIKALATE MG/KG                  | 79±11          | <1C.J                    |
| E ACENAPHTHYLENE ME/KG                    | 79532          | <1C.C                    |
| 2,6-CINITRCTCLUENE MG/KG                  | 79525          | <10.0                    |
| 罰 B-NITRCANILINE ME/KG                    |                | <1C.U                    |
| ACENAPHTHENE ME/KG                        | 79517          | <10.0                    |
| 4-NITROFHENOL MEIKS                       | 77530          | <10.C                    |
| A DISENICFURAN MO/KO                      |                | <10_0                    |
| 2,4-DINITROTOLUENE MEZKE                  |                | <1j                      |
| DIETRYL FRIRALAIE NG/KG                   | 7 7 6          |                          |
| CHLCRCPHENYL FFENYL ETHER PEZKS           | 795 5          |                          |
|                                           |                |                          |

SEP 29 194 10:47 FR REAL PROPERTY - 204 273 4200 TO CAULTURE F. DUROL

| ***************************************                  | ********* | ********                 |
|----------------------------------------------------------|-----------|--------------------------|
|                                                          |           |                          |
|                                                          |           | Y PUGUST TETHE 1594      |
|                                                          |           | CATE : 08/10/54 13:46:41 |
|                                                          |           | CTED : CS/C3/54 1C:15:CC |
|                                                          |           | EDILA : WATER            |
| SAMPLE DESCRIPTION : COX/VAUCHA LANDFILL                 | 217       | TICN CODE - T            |
| SAMFLE TYPE :                                            |           |                          |
| ANALYSIS                                                 | STOFET    | RESULTFAGE Z             |
| FLUORENE ME/KE                                           | 79620     |                          |
| 4-NITRCANILINE NG/KG                                     |           | <10.0                    |
| AZCBENZENE MG/KG                                         |           | <10.0                    |
| 2-METHYL-4,5-DINITRCPHENOL MG/KG                         |           | <10_0°                   |
| N-NITROSODIPHENYLAMINE MG/KG                             | 79659     |                          |
| 4-BRONCFHENYL PHENYL ETHER ME/KE                         | 79534     |                          |
| HEXACHLORCEENZENE MG/KG                                  | 79835     |                          |
| PENTACHLORCPHENCL MG/KG                                  | 7%ć7C     | <16.0                    |
| PHENANTHRENE MG/KG                                       | 75092     |                          |
| ANTHRACENE MG/KG                                         | 79544     |                          |
| DI-N-BUTYLPHTHALATE MC/KG                                |           | <16.0                    |
| FLUORANTHENE PG/KC                                       | 75525     | <10.0                    |
| PYREWE MG/KG                                             | 74722     | <10_C                    |
| BUTYLSENZYL PHTHALAIS MG/KG                              |           | <10_0                    |
| 3,3'-DICHLORCEENZIDING MG/AG                             |           | <10.2                    |
| NZO(A)ANTHRACENE MG/KC                                   |           | <10.0                    |
| RYSENE MOIKO                                             |           | <10.0                    |
| MTSCZ-PTHYLHEATLIPHINALAIN NEIKL                         | 25562     | (10.0                    |
| DI-N-OCTYLPHTHALATE MG/KG                                |           | <10.0                    |
| EENZG(E)FLUORANTHENE YG/KG                               |           | <10.0                    |
| EENZO(K)FLUORANTHENE MG/KG                               |           | <1C.C<br><1C.0           |
| BENZO (A) PYRENE MG/KG                                   | 79044     | <10.0                    |
| INDENC(1,2,3-CD)FYFENE MG/KG                             | 17044     | <10.0                    |
| DIBENZC(AVE)ANTERACENE ME/KG<br>BENZC(EHI)PERYLENE MG/KG |           | <10.0                    |
| CENTOLOHI) - EKICENC - COVES                             |           |                          |
| CHLORCMETHANE MEIKG                                      |           | < 1 . C                  |
| VINYL CHLORIDE ME/KG                                     | 76723     | <1.0                     |
| ARCMOMETHANE NG/KC                                       |           | <1.5                     |
| CHLORCETHANE ME/KG                                       | 7638:     | <1.i                     |
| TRICHLOROFLUOROMETHANE ME/KG                             | 7971-     | <1.(                     |
| 1,1-DICHLOROETHENE MEIKE                                 | 75535     | <1.0                     |
| METHYLENE CHLORIDE MG/KG                                 | 79éc2     | <1.0                     |
| TRANS-1, 2-DICHLERCETHENE ME/KE                          | 79515     | <1.0                     |
| 1/1-CICHLORCETFANZ ME/KC<br>Chloroform Me/kc             | 74504     | <1.5                     |
|                                                          | 74585     |                          |
| 1,1,1-TRICHLORCETHANE NG/KG                              | 79500     | <1.5                     |
| CARBON TETRACHLORIDE MOZKO<br>Den tenne muzika           | 7938:     |                          |
| DENELING PODYNG                                          | 255:1     |                          |
| TZE UTCHECHCETEANE POTKIE                                | 74572     |                          |
| RICHLERDETHENE HUJKE                                     | 75715     | <1.C                     |

SEP 29 194 10:46 FK KERE (KURERI) 904 279 4900 TO 0404044040 T. COLOG

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| *********     |                               | ******                                  |
|---------------|-------------------------------|-----------------------------------------|
|               | CAROLINA DE. ATMENT OF HEALTH |                                         |
|               | ANALYTICAL SERVICES DIVISIO   | N LABORAIONT – REPCKł<br>************** |
| ***********   |                               | *************************************** |
| AMPLE NUMBER  | : 0503948427                  | WEDNESDAY AUGUST 1CTH, 1554             |
| CHARGE NUMBER | : 20                          | RELEASE DATE : 08/10/54 13:46:41        |
| COLLECTED EY  | : U KLAUCK                    | DT COLLECTED : 05/03/94 10:15:00        |
| COUNTY        | : FICNENS                     | SAMPLE REDIUM : WATER                   |
| SAMPLE DESCRI | FTICN : COX/VALEHR LANDFILL   | STATION CODE : 1                        |
| SAMPLE TYPE : |                               |                                         |

ANALYSIS

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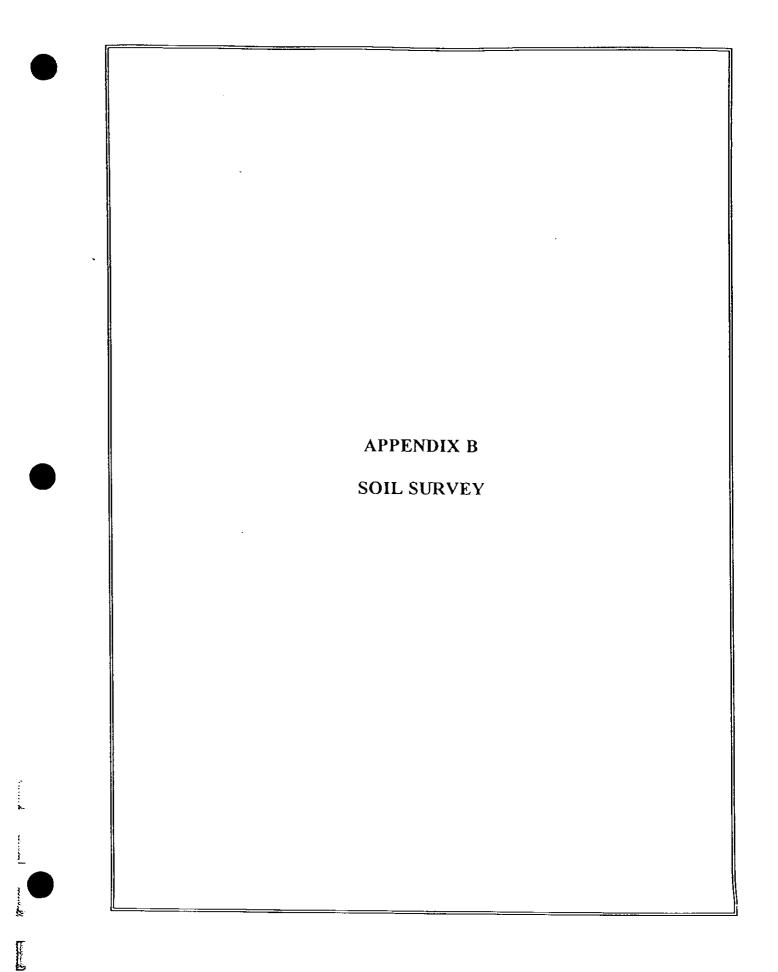
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(University)

COMMENTS:

STORET RESULT

|                                 | 3100.21 |         | FAGE 2 |
|---------------------------------|---------|---------|--------|
| 1/2-DICHLOROFROFANE MGZKG       | 77513   | <1.0    |        |
| ERCMODICHLORCMETHANE MG/KG      |         | <1.C    |        |
| 2-CHECRCETHYEVINYE STHER MEIKE  | 77526   | <1.C    |        |
| CISH1/3-DICHLCRCPF3PENE MG/KG   |         | <1.0    |        |
| TOLUENS MG/KG                   | 79715   | 3.64    |        |
| TRANS-1,3-DICHLOROPROPENE ME/KG |         | <1.0    |        |
| 1,1,2-IRICHLORCETHANE NG/KG     | · 795C3 | <1.C    |        |
| TETRACHLORCETHENE MEZKG         | 75705   | <1.0    |        |
| DISRCHCCHLORCKETHANE MG/KG      |         | <1.C    |        |
| CHLORCEENZENE ME/KG             | 79586   | <1.C    |        |
| ETHYL SENZENE MO/KC             | 79624   | <1.0    |        |
| BROMCFORM MG/KG                 | 79563   | <1_C    |        |
| 1,1,2,2-TETRACHLORGETHANE NG/KG | 79561   | < 1 _ C |        |
| -1,3-CICHLORCBENZENE MEZKS      | 79516   | <1_0    |        |
| 1/4-DICHLORDEENZENE ME/KC       | 75517   | <1.0    |        |
| 2-DICHLORCEENZENE MG/KG         | 79511   | <1.0    |        |



USDA-SCS Columbia, South Carolina August 1989 Greenville Field Office Technical Guide - South Carolina Section IIA

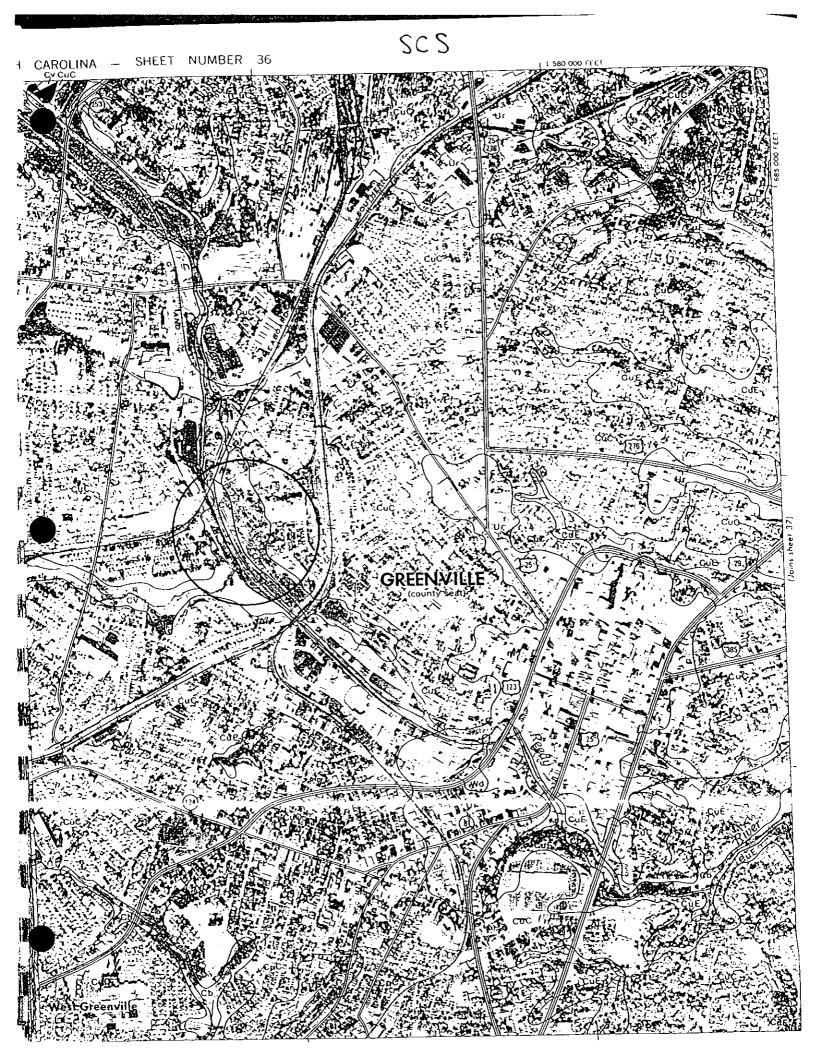
### HYDRIC SOILS - GREENVILLE COUNTY

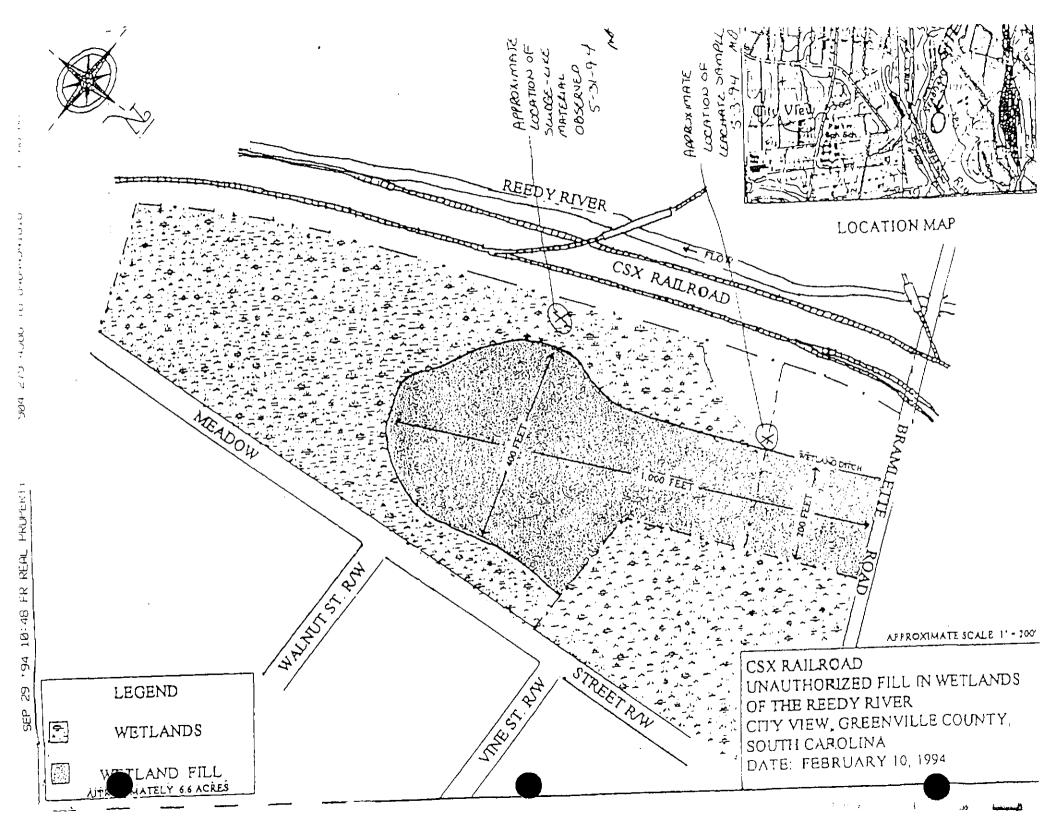
| Symbol | Map Unit Name                  | Hydric Soil Component     | Location          |
|--------|--------------------------------|---------------------------|-------------------|
| Ca     | Cartecay and Chewacla<br>soils | Wehadkee inclusions 1,2,3 | Low lying areas   |
| ξC ρ   | Cartecay and Toccoa<br>soils   | Wehadkee inclusions 1,2,3 | Low lying areas • |
| Cv     | Chewacla soils                 | Wenadkee inclusions 1,2,3 | Low lying areas   |
| Cw     | Congaree fine sandy loam       | Wehadkee inclusions 1,2,3 | Low lying areas   |
| Wd     | Wehadkee soils 1,2,3           | Whole map unit            | N/A               |

Even though not listed here, other upland units in this county may have small included areas of hydric soils.

All areas that are shown by the use of a wet spot symbol possibly have hydric soil properties.

- 1 Hydric due to a saturation only
- 2 Support woody vegetation naturally
- 3 Are seasonally flooded or ponded
- 4 Can be farmed w/out removing woody
   vegetation





# APPENDIX C

# WELL SURVEY

| , I | 1000 | r | ۳. |
|-----|------|---|----|
|-----|------|---|----|

|      | 1                        |                        | s in Greenville Co       |         | Ī              | Dep   |        | Í              | Water                          | level        | suo (             |               | U                 |        |            |
|------|--------------------------|------------------------|--------------------------|---------|----------------|-------|--------|----------------|--------------------------------|--------------|-------------------|---------------|-------------------|--------|------------|
|      | Loca                     | tion                   | Owne i'                  | Driller | e<br>led       | (fe   |        | eter<br>hes)   | Depth<br>below                 |              | gall<br>nute      | type          | graphic<br>uation | Uae    | Rensrks    |
| Well | Latitude                 | Longitude              |                          |         | Date<br>drille | Totel | Casing | Diama<br>(incl | land<br>sur-<br>face<br>(feet) | Date         | Yield (<br>per ml | Rock          | Topog             | n      |            |
|      |                          |                        |                          | Robbina | 3/54           | 230   | 85     | 6              |                                |              | 20                | ggn           | flat              | Р      | Pa         |
| 86   | 34"38150                 | 82*23*20*              | Eilen Woodside<br>School |         |                | 1     |        |                |                                |              |                   |               |                   | D      | в          |
|      |                          | H2*17'50"              | Mr. Woods                | Sloan   | 9/58           | 50    |        | 24             |                                |              |                   | mggn          |                   | D      | abd        |
| •    | 35 02 25                 |                        | Miss Shooks              | Robbins | 9/51           | 127   | 80     | 6              |                                |              | 10-12             | e.            | h111              | D      | Рв         |
|      | 34 54 15                 |                        | Mrs, Edens               | do      | 1/58           | 75    | 70     | 6              |                                |              | 5                 | gsc           | flat              | D      | F-8        |
|      | 34*56'20                 | 82 21 15               | Perry Earle, Jr.         | do      | 12/52          | 62    | 42     | 6              |                                |              | 8                 | ភាទ           | hill              | •      | 5 wells    |
| 90   | 34 48 10                 | 82 21 15               | Southern Worsted         |         |                | 17-27 |        | 2              |                                |              |                   | gsc           | draw              |        | J Wells    |
|      | 34 54 20                 | 82 20 55               | O.N. Eastland            | Robbins | 8/61           | 233   | 33     | 6              |                                |              | 5                 | bhgn          |                   | D<br>D | Рв         |
|      | 34 54 55                 | 82 21 25               | Lindsey Forrester        | do      | 7/55           | 82    | 53     | 6              |                                |              | 15                | bgn           | hill              | 1      | 'Pa        |
|      | 35'03'10                 |                        | A.G. Tractor &           | do      | 11/55          | 71    | 45     | 6              |                                |              | 15-20             | gsc           | flat              |        | ra         |
| 94   | 34 53 20                 | 82 22 30               | Implement Co.            |         |                | ļ     |        |                |                                |              |                   |               |                   | D      |            |
|      |                          | 8 2°21'05"             | Lindsey Forrester        | υo      | 6/52           | 183   | 120    | 6              |                                |              | 10                | m 9           | slope             | I      | Pa         |
|      | 34 46 40                 |                        | Massey Ferguson          | do      | 12/56          | 86    | 68     | 4              | 22.25                          | 5/62         | 8                 | m S           | slope             | L<br>D | 7 B        |
|      | 34 16 35                 | 82*22'50''             | John B.A. Burne          | do      | 6/54           | 97    | 84     | 6              |                                |              | 4                 | gac           | slope<br>flat     | D<br>D | Рв         |
| 97   | 34*53'40"<br>34*46'25"   |                        | Jog Finley               | do      | 4/60           | 180   | 60     | 6              | 75                             | 1960         | 15                | m S           | glope             | D      | r¤         |
|      | 34 46 25                 |                        | Albert Forrest           | do      | 5/51           | 100   | 53     | 6              |                                |              | _                 | ggn           | slope             | 0      |            |
|      | 34 51 23<br>34*51 40"    |                        | Frank E. Friddle         | do      | 5/58           | 245   | 108    | 6              | 13                             | 1958         | 2                 | ggn           | slope             | D      |            |
| 00   | 34 51 40<br>34*51'40     | 82 19 10"              | do                       | do      | 7/60           | 100   | 89     | 6              |                                |              | 14                | ggn           | flat              | D      | abd        |
|      |                          | 82*26'55''             | Furman University        | do      | 11/53          | 148   | 143    | 6              |                                |              | 10                | gsc           | flat              | D      | 800        |
| 2    | 34*55'20"<br>34*45'45"   |                        | Miss Norma Flynn         | do      | 11/55          | 120   | 103    | 6              |                                |              | 15                | ggn           | flat              | Ð      |            |
| 23   | 34 45 45<br>34 49 30     |                        | J.F. Futch               | do      | 3/50           | 107   | 40     | 6              |                                |              | 8                 | ggn           | -                 | D      |            |
| 04   | 34 49 50<br>35°04'50″    |                        | Polly Crisp              | do      | 1948           | 110   | 63     | 6              | 8                              | 19-18        | 10-12<br>25       |               | slope             | D      |            |
|      | 35 04 50                 |                        | Louis E, Freeman         | do      | 5/53           | 83    | 70     | 6              |                                |              |                   | ggc           | slope             | P      | R          |
|      |                          |                        | Few's Methodist          | do      | 6/63           | 91    | 63     | 6              | -                              |              | 5                 | ៣៩៩រា         | stope             | ſ .    | n          |
| 07   | 35*02'10                 | 02 10 00               | Church Chapel            |         |                |       |        |                |                                |              | -                 |               |                   | D      | R          |
|      | 34*54'50                 | 82*22 15               | Mr. Brown                | do      | 8/60           | 175   | .90    | 6              |                                |              | 3                 | g 90          | slope             |        | Launderett |
|      | 34 51 50                 |                        | r.p. Ayers               | do      | 10/58          | 120   | 23     | 6              |                                |              | 20<br>15-20       | g a c         | slope             |        | 2000000000 |
|      | 34 52 02                 |                        | R.M. H111                | oh      | 2/55           | 8-1   |        | 6              | 27                             | 1955         | -10               | g g ri<br>m s | dra∾              |        | Well #1    |
| 10   | 34 52 02<br>34 44 05     |                        | Woodside Mill            | do      | 9/47           | 200   | 62     | 6              | 25                             | 1947<br>1947 | 15                | ms<br>ms      | draw              |        | Well #2;ab |
| 11   | 34 44 05<br>34 44 05     | 82*15'30"              | do                       | do      | 9/47           | 195   | 62     | G              | 25                             | 1947         | 100               | ៣១<br>៣១      | valley            | i      | Well #3    |
|      | 34 44 03<br>34 44 05     | 82*15'30"              | do                       | do      | 10/47          | 176   | 65     | 6              | 4                              | 1 12.11      | 100               | bgn           | slope             | P      |            |
|      |                          | 82°31'20"              | Shiloh Baptist Ch.       | do      | 6/55           | 120   | 76     | 6              |                                | 10.10        | 20                | ggn           | flat              | P      | abd        |
|      | 34*59'40''<br>34*51'35'' | 82°31'20<br>82°25'35'' | Parker High School       |         | 12/48          | 205   | 41     | 6              | 3                              | 1948         | 20                | 1 K R         | • • • • •         | l •    |            |

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# Table 25. Record of Wells in Greenville County, South Carolina (continued)

| 313 34*44'05"<br>314 34*59'10" | я <b>2°</b> 31'20° | ide b<br>do<br>do<br>Shiloh Baptist Ch<br>Parker High School | do | 9<br>10,<br>6/55<br>12/48 | 2(<br>195<br>176<br>120<br>205 | 02<br>65<br>76<br>41 | 6<br>6<br>6 | 25 | 1947<br>1947<br>1948 | 15<br>100<br>4<br>20 | ms<br>ms<br>bgn<br>ggu | draw<br>vallcy<br>slope<br>flat | l<br>I<br>P<br>P | ncll #2; abd<br>Well #3<br>abd |  | D |
|--------------------------------|--------------------|--------------------------------------------------------------|----|---------------------------|--------------------------------|----------------------|-------------|----|----------------------|----------------------|------------------------|---------------------------------|------------------|--------------------------------|--|---|
|--------------------------------|--------------------|--------------------------------------------------------------|----|---------------------------|--------------------------------|----------------------|-------------|----|----------------------|----------------------|------------------------|---------------------------------|------------------|--------------------------------|--|---|

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|      | Local                   |                                    | owner               | Driller | Ð              | Dep<br>(fe | th I   | er<br>s)         | Water<br>Depth<br>below        | Date  | (gallons<br>minute) | t y pe          | Topographic<br>situation | Use    | Remarks               |
|------|-------------------------|------------------------------------|---------------------|---------|----------------|------------|--------|------------------|--------------------------------|-------|---------------------|-----------------|--------------------------|--------|-----------------------|
| Well | Latitude                | Longitude                          | UNITE 1             |         | Date<br>drille | Total      | Casing | Diamet<br>(inche | land<br>sur-<br>face<br>(feet) | Dare  | Yteld<br>per B      | Rock            | Topog                    | 1      |                       |
|      |                         |                                    |                     |         | 1/48           | 300        | 35     | 6                | з                              | 1948  | 15                  | ggn             | fiat                     | Р<br>С | Well #2;81            |
| 16   | 34 51 35                | 82*25'30"                          | Parker High School  | Roppius | 12/50          | 102        | 30     | 6                |                                |       | 2                   | ggn             | slope                    | P      |                       |
| )7   | 34 45'35'               | H2*21'15"                          | Greenville Gun Chil | do      | 6/56           | 90         | 42     | 6                |                                |       | 7                   | bgn             | flat                     | P      | Pa                    |
| 18   | 35 01 15                | H2*21'20                           | ML, View School     | (IO     | 0750           | 220        |        | 6                |                                |       | 20                  | wäßij           | flat                     | r<br>D | 10                    |
| 19   | 35 02 35                | 82*15'05"                          | Jordan School       | do      | 6/51           | 105        | 52     | G                | 36,46                          | 7/62  | 25                  | gsc             | h111                     |        |                       |
| 20   | 34 55 5                 | H2 18 15                           | ist Boptist Church  | do      | 07.71          |            |        |                  |                                |       |                     |                 | 5111                     | с      | ĺ                     |
| 20   |                         |                                    | Parsonage Taylor    | 4.00    | 6/57           | 140        |        | 6                |                                | 1     | 12                  | m \$            | h111                     | C      |                       |
| 21   | 34*34110                | 82*20150                           | Opk Grove Trailer   | du      | 0757           |            |        |                  |                                |       |                     | ]               | drav                     | Р      |                       |
| 2.1  |                         |                                    | Court               | do      | 7/59           | 80         | 39     | 6                |                                |       | 20                  | mggi            | 0 F B M                  |        |                       |
| 22   | 35 01100                | 82*22'30"                          | Sorth Greenville    | 40      | 1705           |            |        |                  | 1                              |       |                     |                 | slope                    | D      |                       |
| 2 -  |                         |                                    | Jr. College         |         | 5/62           | 110        | 80     | 6                |                                |       | 10                  | ggn             | -                        | P      |                       |
| 23   | 34 51 10                | н2°20'20''                         | Wm, S. Middleton    | do      | 7/59           | 93         | 33     | 6                |                                |       | 25                  | mggri           | draw                     | ſ      |                       |
| 24   | 35 01 05                | к2*22'30''                         | North Greenville    | do      | (7.55          |            |        |                  |                                |       |                     |                 | <i></i>                  | с      |                       |
| 24   | 35 0                    |                                    | Jr, College         |         | 8/60           | 103        | 12     | 6                |                                |       | 200                 | ggn             | flat                     | C      |                       |
| 25   | 34*43'35"               | 82°23'05"                          | Moonville Method-   | do      | 8/00           |            |        |                  |                                |       |                     |                 |                          | с      | Pa                    |
| 125  | 54 15 00                |                                    | ist Church          |         | 4/62           | 102        | 84     | 6                |                                | i i   | 10                  | mggri           | slope                    |        | R, CB                 |
| 26   | 35*05'10"               | 82*14'50"                          | Liberty Church      | 00      | 4/63           | 115        | 15     | 6                |                                |       | 15                  | bgn             | valley                   | D      | R, Pa                 |
| 327  | 35 00 50                | 82*25 25                           | A.W. Hines          | do      | 4/63           | 105        | 60     | 6                |                                |       | 20                  | gsc             | slope                    | D      | R, Pa                 |
|      | 34 50 55                | 82*16'05"                          | Mr. Crawford        | do      | 6/63           | 140        | 53     | 6                |                                |       | 5                   | ggn             | valley                   | D      | , <i>r</i> , <i>r</i> |
| 328  | 34 45 20                | 82*25 30"                          | Mr. McGee           | do      | 10/57          | 117        | 55     | 6                |                                |       | 10-12               | gsc             | slope                    | -      | R                     |
| 329  | 34 55 20                | 82*2.1'45"                         | Jack Whitted        | dn      |                | 67         | 30     | 6                |                                |       | 15                  | gsc             | draw                     | D      | n                     |
| 330  | 34 57 15                | 82*24'55"                          |                     | do      | 1/64           | 91         | 45     | 6                | 60                             | 1957  | {                   | g s c           | slope                    | D      | abd                   |
| 331  | 34 55 15                | 82*24 55                           | Robert Whitted      | do      | 10/57          | 120        | 38     | 6                |                                |       | 2                   | m S             | slope                    | D      | well #2               |
| 332  | 34 55 15<br>34*49'115'' | 82*22'00"                          | Thomas C. Wyche     | do      | 5/51           | 55         | 28     | 6                |                                |       | 1                   | m 5             | slope                    | D      | <b>Meil #2</b>        |
| 333  | 34 49 115               | 82 22 00                           | do                  | do      | 5/51           | 161        | 21     | 6                |                                |       | 10                  | m 5             | hill                     | D      | \                     |
| 104  | 34*49'05                | B2 21 20                           | R.S. Small          | do      | 1/63           | 90         | 20     | 6                |                                |       | 20                  | m S             | h111                     | D      | R                     |
| 335  | 34*18`50'               | 82*21 25                           | Vince Hendricks     | do      | 1/63           | 247        | 21     | 6                | 28,05                          | 8/63  | 7                   | 8 g n           | flat                     | I      | R                     |
| 336  | 34 46 05                | 82*25'55"                          | Greenville Con-     | ob      | 1963           | 297        | 1 -    | Ĭ                |                                |       | 1                   |                 |                          |        |                       |
| 337  | 34*48'25"               | 102 23 30                          | crete Co.           |         |                |            | 100    | 6                | 22.86                          | 11/63 | 5                   | ggn             | flat                     | 1      | R                     |
|      | A                       | 82*09155                           | Harold Cooper       | do      | 5/63           | 160        | 40     | 1 -              | 49                             | 1950  |                     | ms              | slope                    | D      | des                   |
| 338  | 34*45'25"               | 82 22 30                           | J.R. Turry          | d0      | 4/30           | 109        | 35     | -                | 1                              | ļ     | 40-50               | ms              | slope                    | D      | abd                   |
| 339  | 34*48*20                | 82 22 30<br>82 19 30 <sup>°°</sup> | Jack Geer           | do      | 5/57           | 167        | 1 -    | -                | 35                             | 1955  | 4                   | ms              | flat                     | D      | 1                     |
| J-10 | 34*47'20"               | 82*19 30                           | Henry A. Smith      | do      | 4/55           | 250        |        |                  | .13                            | 1     | 3                   | <u> Ե</u> ի (2) | slope                    | D      |                       |
| 341  | 34*46'30<br>34*58'30    | 82*19*40                           | Clyde Bayne         | 0.0     |                | 60         | 1 20   | 1 0              | ļ                              |       | 1 _                 | 1               | ·                        | 1      |                       |

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|-------------------|----------------|-------------------------------------|----------------------------------------|--------------------------------------------------|-----------------------|-------------------|------------|--------------|----------|--------------------|--------------------------------------|------|--------------|--------------------|------------------------|-----|-----------------------------|
|                   | 11             | Loc                                 | ation                                  | Owner                                            | Drill                 |                   | e<br>led   | Dep<br>(fe   | et)      | er<br>v            | Dept                                 |      | e louite     | 6                  | y pe<br>phic           |     |                             |
|                   | 113            | Latitude                            |                                        |                                                  |                       |                   | drill.     | Total        | Casing   | Diamet.<br>(inche: | beld<br>land<br>sur-<br>face<br>(fee | Date | . 13         | 5                  | Topographic            |     | e Reserks                   |
| 3                 | 44             | 34 36 20<br>34 41 35"<br>34 4 1 25" | 82°20'50<br>82°11'10<br>82°20'00       | Hugh Cooper<br>Reedy River Pres                  | Robbin<br>do<br>s- do |                   | /53<br>/63 | 165<br>26    | 140<br>8 | 6<br>6             |                                      |      | 2(           |                    | ac slope<br>n flat     |     |                             |
| 3                 | 46             | 35°01,30                            | 82*22*25                               | byterlan Churc<br>parsonage<br>Mr. Brown         |                       |                   | /59        | 120          | 40       | G                  |                                      |      | 25           | ms                 | flat                   | D   |                             |
| 1                 |                | 34°44 15"<br>34°41 25"              | 82°16'25'<br>82°14'20'                 | Palmetto Survey                                  | db<br>do<br>do        | 12,               |            | 105          | 42<br>70 | 6<br>6             |                                      |      | 9            | ngg<br>ms          | n hill<br>valle        | y 1 | 1                           |
| 34                |                | 34*41 25"<br>34*43:40"              | 82*1-1*25"<br>82*17'00"                | horn, Jr.<br>do                                  | do                    |                   |            | 71<br>130    | 44<br>50 | 6<br>6             |                                      |      | 50           | 1 8 1              | draw                   | D   | Pa                          |
| 35                | 1 3            | 34 52 15"                           | 82*20'10"                              | Clyde Wrenn<br>J.D. Spencer                      | do<br>do              | 4/<br>5/          |            | 130<br>27 ]  | 28       | 6<br>6             | 35                                   | 1950 | 10           | Gr<br>ms<br>Bgr    | hill<br>flat<br>bill   |     | Pa<br>Pa; scrves            |
| 35<br>35<br>35    | 3   3          | 4 52' 15                            | 82*19'05''<br>82*20'55''<br>82*18'30'' | Arthur Johnson<br>E.W. Hudson                    | do<br>do              | 8/:<br>2/:        | 1 "        |              | 93       | 6                  |                                      |      | 15-20        | gsc                | slope                  | D   | 3 houses                    |
| 355<br>356        | 5   3<br>;   3 | 4 * 52 ' . 0''<br>4 * 52 ' . 5''    | 82*18*00"<br>82*21'00"                 | George Copeland<br>Mrs. Ann Hate<br>N.L. Parsons | do<br>do<br>do        | 5/0<br>9/3<br>4/5 | 2 1        | 20           |          |                    | 25                                   | 1952 | 3            | g sc<br>g sc       |                        |     |                             |
| 357<br>358<br>359 | 34             | 1°52'iĭ" [£                         | 82°20'30''<br>32°20'35''<br>32°19'40'' | Mr. Grant<br>J.G. Ridgeway                       | 00                    | 11/5              | 5 8        |              | 71       | 6<br>6<br>6        | ļ                                    |      | s            | ggn<br>ggn         | slope<br>slope         | DU  |                             |
| 360               | 34             | 1*54'0." A                          | 2°20'00"                               | W.B. Shockley<br>Dr. C.W. Smith                  | db<br>do              | 1/5               |            |              | 35       | 6                  | 18.61                                | 9/62 | 8<br>10-12   | ggn<br>gsc<br>gsc  | slope<br>slope<br>flat | 0   | Pn                          |
| 361<br>362<br>363 | 35             | *03'1 / 8                           | 2 19 '55'                              | Hugh Cooper<br>M.L. Knight                       | do                    | 5/6:              |            |              | 0 6      |                    |                                      |      | 1            | ggn                | flat                   | s   | abd;served<br>6 houses<br>R |
| 364<br>365        | 34'            | *13'! "  8                          | 27181151                               | Slewart Gaffney<br>Mr. Alexander<br>Herman Hipp  | 0 to                  | 8/38<br>5/63      | 8          | 5 G<br>4 S   |          | 1                  | 2                                    | 1958 | 10<br>2<br>8 | bgn<br>mggn        | draw<br>valicy         | 0   |                             |
| 366<br>367<br>368 | 25*            | 57 1 8<br>00 2 8                    | 2*27'50''<br>2*24'50''                 | Calhoun Hipp<br>J.B. Hawkins                     | do<br>do<br>du        | 8/57<br>4/5G      | 25(        | 5 5          | 5 6      | 1                  | 0                                    | 1956 |              | ggn<br>bhgn<br>gsc | slope<br>slope<br>hill |     | R, Pa                       |
| 369<br>370        | 35*            | 07 21 82                            | 2 2 1 35" []<br>2 3 2 1 0 "   k        | Righ Ivey<br>Ars, Griffin                        | do<br>do              | 8761<br>10760     |            | 6 60         | 0 0      |                    |                                      |      | 5 (          | ihgn<br>ihgn       | flat<br>slopu          | D   |                             |
| ]                 |                |                                     |                                        | J.F. Walts                                       | da                    | 4756              | 115        |              |          | 1 0                | 6                                    | 1956 |              | ongn<br>Ngn        | valley<br>valley       |     | abd                         |

Table 2. Record of Wells in Greenville County, South Carolina (c

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| <b>6</b> | 368<br>369 | 34*58 35"<br>35*07 20" | 81 1. JO"<br>82*24'45"<br>82*32'10" |  | do<br>do<br>do | 85<br>10/60<br>4/56 | 2***<br>132<br>135<br>123<br>115 | 15<br>60<br>90<br>50 | <br>6<br>6 | 6 | 1956 | 5 |  | ilat<br>slope<br>valley<br>valley |  | n bd |  |
|----------|------------|------------------------|-------------------------------------|--|----------------|---------------------|----------------------------------|----------------------|------------|---|------|---|--|-----------------------------------|--|------|--|
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| <u></u> |                            | ation                    | s in Greenville Co     | Driller | fed          | Dep   |        | eter<br>hes)    | Water<br>Depth<br>below        | level | (gallons<br>inute) | t y pe      | r a phíc<br>iation | Use    | Remarks    |
|---------|----------------------------|--------------------------|------------------------|---------|--------------|-------|--------|-----------------|--------------------------------|-------|--------------------|-------------|--------------------|--------|------------|
| Well    | Latit de                   | Longitude                |                        |         | Date<br>dr11 | Tot∎1 | Casing | nd Dian<br>Dian | land<br>sur-<br>face<br>(feet) | Date  | Yield<br>Per m     | Rock        | Topog              | ^<br>  |            |
|         |                            | 82*36'25"                | WFDC -TV               | Robbins | 7/58         | 135   | 30     | 6               |                                |       | 2                  | mggn        |                    | с      | Рв         |
| 371     | 35 06 10                   | 82*25'30"                | Charles Sheppard       | do      | 8/50         | 62    | -10    | 6               |                                |       |                    | Նցո         | drav               | D      | _          |
| 372     | 35 00' 0                   | 82 25 30                 | Wallace Randolph       | do      | 9/61         | 125   | 44     | 6               |                                |       | 4-5                | gsc         | h111               | D      | Pa         |
| ]73     | 34 57 :0                   | 82*25'50"                | B.P. Cleveland         | do      | 9/62         | 102   | 20     | 6               | 47                             | 1962  |                    | BB∩.        | h111               | D      | Pa         |
| ]74     | 34 45 15                   |                          | Ford Hester            | do      | 4/63         | 115   | 86     | 6               |                                |       | 50                 | gsc         | slope              | D      | R          |
| 375     | 34 55 10                   | 82*25'25                 | Marietta Baptist       | do      | 2/59         | 41    | 30     | 6               |                                |       | 35                 | bgn         | draw               | С      | Pa         |
| 176     | 35*02'10"                  | 82*33'10"                |                        | 40      |              |       |        |                 |                                |       |                    |             |                    |        |            |
|         |                            | Interest"                | Middle River Bap-      | do      | 4/57         | 89    | 52     | 6               | 45                             | 1957  | 5                  | mggn        | hill               | С      |            |
| 377     | 35*04 '++0"                | 82*30'55"                | tist Church            | 40      |              | •••   |        |                 |                                |       |                    |             |                    |        |            |
|         |                            | 82*21'50"                | Kenneth M. Geer        | do      | 2/55         | 100   | 70     | 6               |                                |       |                    | ggn         | h111               | D      |            |
| 178     | 31 13' 0"                  |                          | Vance Drawdy           | do      | 4/53         | 252   | 26     | 6               |                                |       | 8                  | ggn         | hi11               | D      |            |
| 179     | 34 43 0                    | 82*21'20<br>82*25'00     | C.D. Griggs            | do      | 2/62         | 112   | 38     | 6               |                                |       | 20                 | ggn         | hill               | D      |            |
| 380     | 34 43' 0"                  | 82 23 00                 | Lewis Hozlewood        | (lo     | 1/52         | 71    | 60     | 6               |                                |       | 6                  | ggn         | h111               | D      |            |
| 181     | 34*43' -5"                 | 82 23 35                 | A, II, Holtzciaw       | da      | 2/56         | 123   | 85     | 6               |                                |       | 5                  | Bau         | h111               | D      |            |
| 382     | 34*42'-5"                  | 82 23 35                 | A.W. Goforth           | do      | 8/58         | 94    | 20     | 6               |                                |       | 6                  | RRN         | ыјоре              | D<br>D |            |
| 183     | 34*43' '0''<br>34*42' :5'' | 82 22 15                 | D.C. Waldrop           | do      | 11/55        | 71    | 52     | 6               | 20                             | 1955  | 2                  | ggn         | slope              | ס      |            |
| 181     | 134 42 .5<br>134 43' '5"   | 82 23 00                 | J.W. Behrens           | dо      | 5/59         | 150   | 90     | 6               |                                |       | 5                  | ggn         | h111               | D      |            |
| 85      | 34 42 10                   | 82*23'25                 | Mr. McKelvy            | сb      | 11/51        | 113   | 67     | 6               |                                |       | 15                 | <b>B</b> Bn | flat               | -      | Pa: 6 hous |
| 56      | 34 42 0                    | 82 26 10                 | W.E. Mitchell          | do      | 6/56         | 122   | 72     | 6               |                                |       | 25-30              | BB∩         | slope              | D      | Pa; 6 nous |
| 87      | 34 42 .0                   | 82 24 20                 | Gunter Dairy           | do      | 8/58         | 44    | 25     | 6               |                                |       | 10                 | 88n         | drew               | D      |            |
| 88      | 31 130                     | 82 18 15                 | Calvin Garett          | do      | 2/60         | 95    | 70     | 6               |                                |       | 25                 | B a c       | flat               | D<br>D |            |
| 89      | 34 52 0                    | 82 20 50                 | John Granger           | do      | 1/52         | 74    | 22     | 6               |                                |       | 6                  | BEn         | slope              | -      |            |
| 90      |                            | 82 20 55                 | Mr. James              | do      | 12/54        | 55    | 22     | 6               |                                |       |                    | ggn         | slope              | D      |            |
| 91      | 34 52 0                    | 82 18 50                 | James D. Walters       | do      | 9/56         | 138   | 36     | 6               |                                |       | 25                 | BBN         | flat               | D      |            |
| 92      | 34 51 5                    | 82 19 55                 | Mr. Hungerford         | do      | 2/52         | 207   | 76     | 6               |                                |       | 5                  | ggn         | h111               | D      |            |
| 93      | 34 51 5                    | 82 19 55                 | A.S. McDaid            | do      | 11/60        | 98    |        | 6               |                                |       | 12                 | <u>g</u> gn | h111               | D      |            |
| 94      | 34*51' 5"                  | 82 18 10                 | A, S, MCDRIO           |         |              |       |        | 6               |                                |       |                    |             |                    |        |            |
| 95      |                            |                          | S.D. Granger           | do      | 5/58         | 151   | 93     | 6               | 38                             | 1958  | 4                  | ggn         | flat               | D      |            |
| 96      | J4 46 5                    | 82 21 55                 | E.K. Hudson            | do      | 1/53         | 90    | 35     | 6               |                                |       | 6                  | Rgn         | slope              | D      |            |
| 97      | 04*48' 5"                  | 82°25'20''<br>82°25'00'' | K, Hudson<br>Mr. Jones | do      | 3/55         | 61    | 31     | 6               |                                |       | 10                 | ggn         | flat               | D      |            |
| 98      | 34 46 O                    |                          | do                     | do      | 8/51         | 180   | 30     | 6               |                                |       |                    | ggn         | flat               | D      |            |
| 99      | 34 46 0                    | 82*25*00"<br>82*25*00"   | Floyd Jones            | do      | 9/53         | 138   | 30     | 6               | 24                             | 1950  | 20                 | 88n         | flat               | D      |            |
| 00      | 34*46' 5"<br>34*48' 0"     | 82*25*25                 | H,H, Pest              | do      | 2/51         | 98    | 43     | G               |                                |       | 8                  | g g n       | ajobe              | D      |            |

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|            | Loca                   | 1100              | Owner              | Driller   | e<br>led       |       | pth<br>≥et) | eter<br>hes)       | Depth<br>below                | r level      | (gallons<br>minute) | ty po       | graphic<br>untion        | Use | Remarks      |
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| We]]       | Latitude               | Longitude         |                    |           | Date<br>drille | Total | Casing      | Diamete<br>(inche: | land<br>sur-<br>face<br>(feet | Date         | Yield (<br>per mi   | Rock        | Topographic<br>situmtion | ĥ   | <br>         |
| 402        | 31* 15 ' 25''          | 2 24 50           | Mr. Newlin         | Robbins   | 8/50           | 144   | 137         | 6                  | T i                           |              | 7                   | ggn         | flat                     | D   |              |
| 402        | 04 <sup>*</sup> 54 58" | 2 22 55           | T.W.D. Schafer     | do        | 6/63           | 210   | 30          | 6                  |                               |              | 5                   | gsc         | h111                     | D   | R            |
| 40J<br>404 | 34 48 30"              | 2 25 20           | R.L. Meaders       | do        | 1/55           | 96    | 40          | 6                  | ł                             |              | 6-8                 | ggn         | slope                    | D   |              |
| 404        | 34 48 30               | 2 24 '55'         | Stanley Lee        | do        | 12/54          | 63    | 62          | 6                  | ļ                             |              | 10                  | ggn         | flat                     | D   | 1            |
| 406        | 34 46 35               | 2 21 '55'         | Mr. O'Conner       | do        | 1/49           | 160   | 35          | 6                  | 35                            | 1949         | 1                   | ggn         | flat                     | D   |              |
| 400        | 34*47 '10"             |                   | Mr, Granger        | do        | 2/51           | 92    | 90          | 6                  |                               | 1            | 10                  | ggn         | flat                     | D   | abd          |
|            | 34*51'40"              | 2 27 45           | J.M. Jolly         | do        | 8/53           | 116   |             | 6                  | 1                             |              | 4                   | ga⊂         | flat                     | D   | abd          |
|            | 34 58 25"              | 12*28 55"         | John Looper        | do        | 10/60          | 125   |             | 6                  |                               |              | 1                   | bhgn        |                          | D   | Pa           |
|            | 31 51 45"              | h 2 27 ' 15"      | Mr, Loyd, Jr.      | do        | 9/51           | 137   | 22          | 6                  | 11.68                         | 11/62        | 6 - 7               | g s c       | flat                     | D   | sbd          |
|            | 34 49 40               | H 2* 27 ' 05''    | leyward Ballard    | do        | 4/53           | 280   | 65          | 6                  |                               |              | 3                   | ggn         | slope                    | D   | des          |
|            |                        |                   | Mr, Lunsford       | do        | 11/50          | 132   | 60          | 6                  |                               |              |                     | ggn         | slope                    | D   | Serves 3     |
| 11.        | 54 11 00               |                   |                    |           | 1              |       |             |                    |                               |              |                     |             |                          |     | houses       |
| 113        | 34*47'10"              | - :*24'25"        | Mrs, Minnie Martii | do        | 9/52           | 103   | 27          | 6                  | 27,24                         | 10/62        |                     | KEn         | flat                     | D   | вbd          |
|            |                        |                   | D.L. Moore         | do        | 7/50           | 135   |             | 6                  |                               |              | 5-6                 | ggn         | flat                     | D   |              |
|            |                        | H2*22'50"         | Locust Hill Bap-   | Harris    | 1954           | 600   | 60          | 6                  | 60                            | 1954         | 0                   | m \$ 4      | h111                     | с   | abd          |
|            |                        |                   | tist Church        |           |                |       | 1           |                    |                               |              |                     |             |                          | D   |              |
| 116        | 34*55'10"              | 12*28'05"         | George Ross        | Robbins   | 1/52           | 118   | 60          | 6                  |                               |              | 4                   | Kac         | slope                    | מ   |              |
|            | 34 52'04"              | H 2* 20'40"       | Mrg, Watson        | do        | 7/55           | 60    | 17          | 6                  |                               |              | 20                  | Kgn         | slope                    | D   |              |
| 18         | 34 * 52 ' 05 "         | H 2*20'35"        | Erskine Traynhom   | do        | 1/53           | 45    | 14          | 6                  |                               |              | 20                  | Rgn         | flet<br>flat             | 0   | aud          |
|            | 34 52 10               | + :*28'00"        | Mrs, Mae Williams  | do        | 2/52           | 112   | -13         | 6                  |                               |              | 4                   | g sc        |                          | c   | D            |
|            | 34°55'25"              | ∽ ·*281251        | R.B. Wynn          | Alexander | 3/56           | 60 (  |             | 48                 | 45-57                         | 1956         | 8<br>1              | bgn         | hill<br>hill             | D   | U            |
| 21         | 3-1*57'30''            |                   | C.R. Molze         | Robbins   | 11/62          | 120   | 90          | 6                  |                               |              | 8                   | bhgn<br>gsc | fint                     | c   | abd          |
| 22         |                        |                   | wQOK Radio Station |           | 11/18          | 102   | -15         | 6                  |                               | 1955         | 25                  | ·           | slope                    | D   | 400          |
| 20         | 34*51'55"              |                   | H,F, Sanders       | οU        | 11/55          | 83    | 22          | 6                  | 20                            | 1955<br>1954 | 2.3<br>F 10         | 6 R n       | slope                    | Ď   | Doesn't flow |
| 2.1        | 34*52'13"              | × ·• 20'35"       | Mack E. Henry      | do        | 3/51           | 22    | 18          | 6                  | 22                            | 19.54        | P 25                | rgn         | atobe                    |     | in summer    |
|            |                        |                   |                    |           |                |       |             |                    |                               |              | 23                  | - I         | slope                    | D   | R            |
| 2.5        |                        |                   | James Terry        | do        | 1963           | 95    | 60          | 6                  |                               | 9/63         | 6                   | ST<br>BBD   | slope                    | ı   | R            |
| 26         |                        |                   | J.P. Stevens Co.   | do        | 8/63           | 200   | 20          | 5                  | 18.41                         | 3/03         | 2                   |             | flat                     |     | des          |
| 27         | 34 42 55               | н ••26°40"        | do                 | Chandler  | 8/63           | 390   | 70          | 5                  |                               |              | ó                   | ggn         | flat                     |     | des          |
|            | J4 12'55               | 8 * 26 ' 40 ''    | do                 | do        | 8/63           | 145   | 20          | 5                  | 0.000                         |              | 18                  | ggn         | valley                   | i l | Pa           |
| 29         |                        | н •*26°10''       | do                 | dn        | 8/63           | 135   | 20          | 5                  | Flows                         | 9/63         | 18                  | ggn<br>ggn  | valley                   |     | abd          |
| 30         | 34*42'15"              | ⊁ <b>"26'</b> 40″ | d o                | do        | 8/63           | 150   | 20          | 5                  | 1.45                          |              | 200                 | ggn         | valley                   | ; 1 | Pa           |
|            | 34 42 45               | H * 26'40''       | do                 | do        | 8/63           | 143   | 35          | 5                  | 6                             | 1963         | 200                 | 6Bu (       | variey                   | •   | <i>,</i> .   |

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Table 25. Record of Wells in Greenville County, South Carolina (continued)

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| $ \frac{1}{100} 1$                                                                                             | The compared to be a second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |
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an b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Renarks        |
| 432       34*51*5:       62*20*25''       Mrs. H.H. Nodine       Robbins       10/56       129       42       6       20       ggn       flat       D         433       34*52*10''       82*20*40''       D.D. Pou, Jr.       do       1954       65       22       6       12       12       6       12       20       ggn       flat       D       D       P       10       6       12       22       6       12       20       ggn       flat       D       D       P       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Owner Driller und Daie Und Dai |                |
| 451 (34*33*1) H2 18 00 (3.6, 14) (6 (6 (7 (7 (7 (7 (7 (7 (7 (7 (7 (7 (7 (7 (7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 432 $34^{+}51^{+}51^{+}$ $82^{+}20^{+}25^{+}$ Mrs. H.H. Nodine<br>D.D. Pou, Jr.<br>0.D. Pou, Jr.Robbins<br>do $10/56$ $129$ $42$ $6$ $20$ ggn<br>22 $flat$ D433 $34^{+}52^{+}1^{+}$ $82^{+}20^{+}40^{+}$ D.D. Pou, Jr.<br>D.D. Pou, Jr.do $1954$ $65$ $6$ $12$ $ggn$ $slope$ D434 $34^{+}52^{+}1^{++}$ $82^{+}20^{+}30^{+}$ Alton Rogers, Jr.<br>Alton Rogers, Jr. $do$ $1954$ $65$ $6$ $6$ $30$ $ggn$ $slope$ D436 $34^{+}52^{+}0^{++}$ $82^{+}20^{+}35^{++}$ $Alton$ Rogers, Jr.<br>Alton Rogers, Jr.Robbins $7/55$ $42$ $10$ $6$ $ggn$ $slope$ D437 $34^{+}52^{+}0^{++}$ $82^{+}20^{+}20^{+}5^{++}$ $Berl H. Recec$ $do$ $11/53$ $80$ $27$ $6$ $8-10$ $ggn$ $slope$ D438 $34^{+}51^{+}51^{++}$ $82^{+}20^{+}15^{++}$ Milton J. Smcak $do$ $9/58$ $65$ $30$ $6$ $8-10$ $ggn$ $slope$ D439 $34^{+}52^{+}01^{++}$ $82^{+}20^{+}40^{++}$ Jack H. Jarrell $do$ $5/51$ $103$ $32$ $6$ $8-10$ $ggn$ $flat$ D440 $34^{+}46^{+}51^{++}$ $82^{+}23^{+}55^{++}$ $do$ $2/58$ $110$ $65$ $6$ $62$ $1958$ $6$ $ggn$ $flat$ D441 $34^{+}46^{+}1^{++}$ $82^{+}27^{+}23^{++}$ $do$ $10/54^{+}76$ $47$ $2\frac{1}{2}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | bd<br>bd<br>Pa |

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D.C. Pulley

Boyd Wooten

M.R. Miller

R.H. Stewart

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| 13     | {          |                        | Owner                       | Driller    | 2             |           | ,,       | 12            | y belo   | 1         |            | <u> </u> |            |    | Remarks |
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|        | ļ          |                        |                             |            |               | 1.5       | ŝ        |               | face     |           | Yield      | ŭ   à    | <u>b</u> 5 |    | 1       |
| 465    | 34 54 1    |                        | <u></u>                     |            |               | <b>_}</b> | <u> </u> | _             | (fee     | <u>t)</u> | <u> </u>   |          |            |    | _1      |
| 466    | 34 54 40   | 82°23'15'<br>82°24'30' | Freeman Myrick              | Robbins    | 10/5:         |           |          | -             |          | 1953      | 7-8        | bh       | gn slope   | D  |         |
| 167    | 34 55 0' " | 82*24'20"              |                             | do         | 4/51          | 176       |          |               |          |           | 4          | g s      | c slope    | D  |         |
| -168   | 34 33 2. " | 82 22 35               | Miss V. Norris<br>Guy Smith | do         | 9/58          | 215       |          | 1 ~           | 57       | 1958      |            | bh       | gin        | D  |         |
| 469    | 34*54'5: 1 | 82 23 35               | Mrs. McCauley               |            | 1920          | 40        |          | 48            |          |           | 5          | ] _n s   | flat       | D  | D, Pa   |
| 170    | 34 54 36   | 82 23 50"              | Dr. J.W. McLean             | Robbins    | 11/56         |           |          | 1 -           | 50       | 1956      | 6          | bh       | gr slope   | D  |         |
| 471    | 34 04 15"  | 82*22'55"              | J.A. Hipps                  | do         | 1/58          | 114       |          | 6             | }        |           | 10         | bh       | gn slope   | D  |         |
| 472    | 34 55 20   | 82'21'15"              | Earl W. Sargent             | Chandler   | 1961          | 36        |          | 24            | 15       | 1961      | 3          | m 5      | slope      | D  | D, Pa   |
| 173    | 34 55 05   | 82 23 50               | Wade Stephens               | Robbins    | 1             | 150       | -        | -             | 97       | Í         | 10         | gsc      | slope      | D  | 1       |
| 171    | 34 39 05   | A 2 * 26 ' 25'         | H.W. Neely                  | do         | 9/59          | 160       | 1        | 6             |          | 1         | 8          | gsc      | slope      | D  | J       |
| 75     | 31 55 05   | 82 20 25               | Dr. Hugh Smith              | do         | 1953          | 108       | 60       | 6             |          |           | 4          | m 5      | flat       | D  | Pa      |
| 76     | 34 54 45   | 82 20 25               | Dr. Cecil White             | 10         | 1/52          | 152       | 30       | 6             |          | 1         | 5          | 830      |            | D  |         |
| 77     | 34 55 00   | 82 23 55               | Dr. Hugh Smith              | u o        | 2/55          | 12.1      | 42       | 6             |          |           | 10         | bhg      | n slope    | D  | ļ       |
| 78     | 34*55'10   | 82*21'00"              | Dr. Schultz                 | do<br>do   | 3/53          | 117       | 55       | 6             |          |           | 6          | gsc      | · ·        | סן |         |
| -      | 34 54 35   | 82 24 25               | W.W. Stevenson              | 1          | 8/5-1<br>3/50 | 1.19      | 40       | 6             | }        |           | 1          | gsc      | h111       | 0  |         |
|        | 34 57 50   | 82"19'35"              | J.W. Darnes                 | ob<br>do   | 12/62         | 127       | 50       | 6             |          |           | 20         | gsc      | 1          | D  | Pa      |
|        | 34*54'50   | 82 23 50               | II.R. Turner                | ob         | 6/55          | 275       | 95       | U<br>C        | 10       | 1962      | 15-20      | pµR      |            | D  | Ps      |
| 82     | 34*55'25   | 82 24 15               | Dr. B.D. White              | 40         | 8/59          | 309       | 30       | G             | 75       | 1955      | 15         | bhg      | n slope    | D  |         |
| 83     | 34*54145   | 82*23'10"              | Jack Ward                   | di di g    | 4/57          | 180       | 60       | 6             |          |           | 12         | Rac      | slope      | D  | 1       |
| 94     | 34*54'10   | 82*23'30"              | Roger Dillard               | 00         | 2/56          | 206       | 65       | 6             | 80       | 1957      | 5          | bhg      | slope      | D  | 1       |
|        | 34*54'10   | 82*23'30"              | E.U. W11118                 |            | 2/56          | 135       | 25       | 6             | 30       | 1956      | 2 - J      | g 5 C    | 1          | D  | ł       |
|        |            | 82 27 25               | G. Cumpbell                 | Herris     | 1954          | 54        | 11       | G             |          | i         | -4         | gsc      |            | D  |         |
|        |            | 82*21'25"              | Mr. White                   | Robbins    | 1/48          | 130       |          | 6             |          | 1         | 15         | ms       | flat       | D  | Pa      |
| 8 1    | 34*55'10   | 82*21'20''             | WS PA-TV                    | do         | 2/47          | 91<br>178 | 32       | 6             | 27       | 1918      | 6          | gsc      | slope      | D  | ,       |
| 19 I : |            | 82*21'00''             | George Smith                | 40         | 8/58          |           |          | G             | 80       | 1947      | 2          | gsc      | h111       | C  | Pa      |
|        |            | 82*24'00''             | Ansel Ashmore               | 00         | 1/-19         | 55        | 25       | 6             | 3        | , ,       | 30-40      | ßac      | draw       |    |         |
|        |            | 82*23/30               | Morgan Goldsmith            | do         | 12/48         | 103       | 30       | 6             | 35       | 1949      | -1         | g s c    | slope      | D  |         |
|        |            | H2°16'00''             | Dennts Smith                | 40         | 1/64          | 138       | -08      | G             | -10      | 10.18     | 20         | bhgi     | slope      | D  |         |
|        |            | 82 21 28               | Jack W. Nay                 | do         | 1/18          | 118       | 22       | 6             |          |           | 5          | gsc      | flat       | 0  | R       |
|        |            | 82*28'15"              | Luta Collins                | 40         | 1939          | 60        | 22       | 6             |          |           | 10         | gsc      | slope      | D  | Pa      |
|        |            |                        | Andrew McNeil               | do         | 5/53          | 96        | 20       | 6             |          |           |            | ggn      | slope      | D  | Pa      |
| 1      |            |                        | Jim Pressley                |            | 12/52         | 229       | 30       | 6             |          | ľ         | 15         | gsc      | slope      | D  |         |
|        | 1          |                        | Ernest K. Young             |            |               | 220       | 80       | 6             |          |           | 5          | gsc      | h111       | D  |         |
| _      |            |                        | LINE IL TOTUL               |            | 12780         |           | °0       | °             | [        |           |            | gsc      | slope      | D  |         |
|        |            |                        |                             |            |               |           |          |               |          |           |            |          |            |    |         |

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|            | e 25 - Local           |              | on Greenville Co<br>Owner | Driller    | led          | Dep<br>(fe | th     |                      | Depth<br>below                 | level | (gallons<br>inute) | type                                         | graphic<br>uation | Use | Remarks  |
|------------|------------------------|--------------|---------------------------|------------|--------------|------------|--------|----------------------|--------------------------------|-------|--------------------|----------------------------------------------|-------------------|-----|----------|
| Well       | Latitude               | Longitude    |                           |            | Date<br>dr11 | Total      | Casing | Diameter<br>(inches) | land<br>sur-<br>face<br>(feet) | Date  | Yield (            | Rock                                         | Topogru           | 2   |          |
|            |                        |              |                           |            | 1901         | 45         |        | 48                   |                                |       |                    | ggn                                          | slope             | D   | Ра       |
| 8          | 34*48'20"              | 102 20 20    | Luta Collins              |            | 8/59         | 118        | 64     | 6                    |                                |       | 30                 | gsc                                          | slope             | D   |          |
| 9          | 34°54'10"              | 82 23 15     | Miss Coggins              | Robbins    | 11/61        | 105        | 55     | 6                    |                                |       | 35-40              | ggn                                          | slope             | D   |          |
|            | 34 \$0':5"             | 82 17 30     | Ernest Wilson             | do         | 11/01        | 110        | 60     | 6                    |                                |       |                    | gsc                                          | slope             | D   |          |
| 51         | 34*50'15"              | 82 17 55     | Fletcher Kirkland         | de         | 5/57         | 134        | 80     | 6                    | 50                             | 1957  | 7                  | നളുന                                         | valley            | D   | İ        |
| 52         | 35*01'10"              | H2 31 45     | Walter Goldsmith          | do         |              | 176        | 12     | 6                    |                                |       | 5                  | m S                                          | hill              | D   |          |
|            | 35*01125               | 82 31 15     | do                        | do         | 6/60         | 163        | 133    | Ğ                    |                                |       | n 2 - 1 5          | bgin                                         | flat              | p-s |          |
|            | 35*02'05"              | 82 27 35     | C. Douglas Wilson         | do         | 8/53         | 45         | 100    | 24                   |                                |       |                    | നളളന                                         | flat              | D   | B        |
| 5          | 35 05 10               | 82 28'05     | Howard Wilkie             | do         | 10/57        | 193        | 154    | 6                    |                                |       | 5                  | bgn                                          | flat              | D   |          |
| )6         | 35*02 '00"             | 82 28'15     | Guy Poore                 | do         | 12/35        | 193        | 133    | 6                    | 35                             | 1957  | 6                  | mggn                                         | flat              | D   | Pa       |
| )7         | 35*05'10"              | 82 28 10     | Bruce Nense               | do         | 11/57        | 35         | 135    | 6                    |                                |       |                    | bgn                                          | flat              | Ø   |          |
| 08         | 34 \$9 ' 0'            | 82 31'50     | Mrs. J.A. Lausford        | υU         | 3/53         | 118        | 80     | 6                    |                                |       | 4                  | bgn                                          | slope             | D   | Pa       |
| )9<br>)9   | 35 00 15               | H2 31'20     | T.J. Robinson             | ιlo        | 8/59         | 56         | 48     | G                    | 28                             | 1948  | 9                  | bgn                                          | slope             | D   | 1        |
| 10         | 35 02 15"              | 82*29*05     | J,₩, Johnson              | do         | 7/48         | 583        | -10    | 6                    |                                |       |                    | ggn                                          | hi11              | Р   | abd      |
| 11         | 34 49 15               | 82 28 15     | Juventie deten-           | Harris     | 1955         | 262        | 0      | Ŭ                    | 1                              |       |                    | ĺ                                            |                   |     |          |
| ••         |                        |              | tion home                 |            | 1960         | 80         |        | 6                    |                                |       |                    | gr                                           | flat              | D   | Pa       |
| 12         | 34*37 ' 10"            | 62*11'25"    | w.S. Paden                | Wasson     |              | 105        | 80     | 6                    |                                |       | 1-5                | 85C                                          | flat              | D   |          |
| 13         | 34*53' 10"             | H 2* 20' 55" | F.M. Whitlock             | Robbins    | 3/51         | 93         | 32     | 6                    |                                |       | 35                 | gr                                           | flat              | D   | Pa       |
| 14         | 34*37'15"              | 82*15'10"    | J.C. Sprouse              | Burdette   | 1951         |            | 52     | 6                    | 30                             | 1954  | 7                  | m 9                                          | h1]]              | Р   | abd      |
| 14         | 34 39 10               | 82*20'10"    | Onklawn Prison            | Robbins    | 1954         | 120        |        |                      |                                |       |                    |                                              |                   |     |          |
| 15         | 14 15 10               | 02 -0 0      | Camp                      |            |              |            |        | ů                    |                                |       | 8                  | ms                                           | h111              | Р   | Рв       |
|            | 34*39130               | 82"20'10"    | તલ                        | Cox        | 1955         | 3 3 9      |        |                      |                                |       | 10                 | ms                                           | h111              | Р   | Pa       |
| 16         | 34 39 30<br>34 39 30   | 82 20'10"    | do                        | do         | 1958         | 500        |        | 6                    | 35                             | 1952  | 22                 | ms                                           | flat              | D   | Pa       |
| 17         | 34"39"30<br>34"40'35"  | 82'19'05"    | C, Kellett                | do         | 1952         | 211        | 66     | 6                    | 1 ·                            | 1952  | 20                 | лs                                           | slope             | D   |          |
| 18         |                        | 82 20'05     | J.F. Schotlas             | Robbins    | 8/50         | 152        | 64     | 6                    | 19                             | 1900  | 5                  | ms                                           | flat              | D   | B, Pa    |
| 19         | 34 19 55               | 82°19'00"    | J.P. Kellett              | Kellett    | 12/62        | 53         |        | 24                   |                                | [     | 4                  | ggn                                          | flat              | D   | Serves 8 |
| 20         | 34*40115"              |              | Doug Green                | Robbins    | 10/55        | 164        | 78     | G                    |                                |       | "                  | 65"                                          |                   | -   | houses   |
| 21         | 34*50'10"              | 82,18,00     | DONK OFCC                 |            |              | Ì          |        | 1                    |                                |       | 50-60              |                                              | slope             | s   | Chicken  |
| 22         | 34*101.01              | 82*20125     | Clay Jones                | ძი         | 1/52         | 188        | 50     | 6                    |                                | ļ     | 130-00             |                                              |                   | _   | f a rim  |
|            |                        |              |                           |            | a.(r.)       | 60         | 53     | б                    | 21                             | 1951  | 15                 | ggn                                          | flat              | D   |          |
| 23         | 11 19 10 <sup>11</sup> | H2°18'15"    |                           | do         | 9/51         | 138        | 50     | 6                    | 20                             | 1947  | 15                 | ms                                           | slope             | D   |          |
| 2 J<br>2 J | 31 19 50               | 82 20 00     | E.M. Ramminger            | do         | 2/47         | 138        | 80     | 6                    |                                |       | 8                  | ggn                                          | flat              | D   |          |
| 21         | 34 44105               | 82*26'50     | p,w, Kellett              | do         | 12/56        |            | 00     | 6                    |                                | ļ     | 15                 |                                              | slope             | D   | Pa       |
| 25         | 34 412 15              | 82 18 05     | Mr. Riggins               | Freshwater | 1961         | 123        |        |                      | •                              |       | 1                  | <u>1                                    </u> | L                 | J   | A        |

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|                                  | 25. Reio<br>Lucat                                                                                                                                                                                                    |                                                                                                                   | in Greenville Cou                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Driller                                                                               | P                                                                                                                                                               | Dep<br>(fe                                                                                                                             | th                                                                                                                         | r.<br>()                                                                                    | Depth<br>below                 | level                | (gallon<br>inute)                                                                             | t y po                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | grapbic<br>uation                                                                                                                           | Use                                                                                         | Remarks                               |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------|----------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------|
| ¥e11                             | Latitude                                                                                                                                                                                                             | LongLtude                                                                                                         | Uwner                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       | Date<br>drille                                                                                                                                                  | Total                                                                                                                                  | Cesing                                                                                                                     | Diamete<br>(inche                                                                           | )and<br>sur-<br>face<br>(feet) | Date                 | Yield (<br>per mi                                                                             | Rock                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Topog<br>situ                                                                                                                               |                                                                                             |                                       |
| 31<br>32<br>33<br>34<br>35<br>36 | 34 43 45<br>34 43 45<br>34 43 55<br>34 46 00<br>14 45 50<br>14 45 50<br>14 45 50<br>31 39 45<br>34 46 00<br>34 46 20<br>34 46 20<br>34 46 20<br>34 46 00<br>34 46 00<br>34 45 50<br>34 50 45<br>34 51 00<br>34 51 25 | 82*27'35'<br>82*26'55'<br>82*20'55'<br>82*21'15'<br>82*21'15'<br>82*14'00'<br>82*20'50'<br>82*20'50'<br>82*20'30' | <ul> <li>pl. Pittman</li> <li>Marion White</li> <li>Edward A. Jeckel</li> <li>W.C. Hendrix, Jr.</li> <li>J.T. Hellams</li> <li>do</li> <li>H.L. Farrow</li> <li>Mr. Oxner</li> <li>J.R. Bishop</li> <li>Fa Smith</li> <li>C.M. Turner, Ji.</li> <li>Mr. Taylor</li> <li>Dill Stroud</li> <li>Jack Sloan</li> <li>W.W. Pate</li> <li>James A. Longo</li> <li>Goldsmith &amp; Gimminal</li> <li>do</li> <li>Veeder Roote</li> <li>Dr. Bolt</li> <li>Skyland Drivestn;</li> </ul> | Robbins<br>do<br>do<br>do<br>do<br>do<br>do<br>do<br>do<br>do<br>do<br>do<br>do<br>do | 9/56<br>6/58<br>12/55<br>5/50<br>3/57<br>1941<br>6/59<br>10/59<br>11/54<br>7/59<br>7/56<br>9/59<br>4/52<br>1/55<br>5/51<br>1/53<br>4/52<br>1951<br>8/48<br>1/62 | 79<br>116<br>97<br>111<br>95<br>125<br>90<br>56<br>12<br>90<br>178<br>109<br>80<br>89<br>127<br>135<br>150<br>101<br>158<br>102<br>180 | 28<br>70<br>72<br>60<br>60<br>10<br>60<br>30<br>30<br>30<br>30<br>30<br>30<br>45<br>71<br>47<br>22<br>40<br>92<br>60<br>38 | 6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 12                             | 1952<br>1951<br>1948 | 10<br>10<br>6-7<br>520<br>20<br>20<br>20<br>20<br>25<br>50<br>25<br>4<br>15<br>25<br>30<br>25 | 880<br>880<br>880<br>ms<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>ms<br>80<br>m80<br>ms<br>80<br>m80<br>m80<br>m80<br>m80<br>m80<br>m80<br>m80<br>m80<br>m80 | hill<br>slope<br>flat<br>slope<br>slope<br>slope<br>slope<br>slope<br>slope<br>flat<br>flat<br>flat<br>flat<br>flat<br>flat<br>flat<br>flat | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | des<br>Pa<br>Pa<br>Pa<br>abd<br>Pa    |
| 48<br>49<br>50<br>51             | 34*43'45<br>34*44'20<br>34*44'20<br>34*45'25<br>34*45*25<br>31*44'50                                                                                                                                                 | 82*23'25"<br>82*23'25"<br>82*23'20"<br>82*09'55"<br>82*09'55"<br>82*23'40"                                        | er Purk & Gas<br>Station<br>James Sorrell<br>F.S. Zahka<br>J.G. Ridgeway<br>Harold Cooper<br>Mr. McDanial<br>Landrum's Uphols-                                                                                                                                                                                                                                                                                                                                                 | do<br>do<br>Burdette<br>Robbins<br>do                                                 | 12/56<br>9/53<br>8/51<br>1963<br>11/52<br>10/48                                                                                                                 | 44<br>103<br>90<br>315<br>65<br>140                                                                                                    | 34<br>82<br>80<br>56<br>59<br>60                                                                                           | 6<br>6<br>6<br>6                                                                            | 20                             | 1956                 | 10<br>7<br>20<br>30<br>20<br>26                                                               | 881<br>881<br>881<br>881<br>881                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | flat<br>hill<br>flat<br>draw<br>slope<br>hill                                                                                               | C<br>C<br>D<br>I<br>D<br>C                                                                  | Trailer Ct<br>Gardenia<br>Motel<br>Pa |

nty South Carolina (continued). . .

### 10.40 M Burner harren brouged

| 1548 1347 17 40<br>1            | B2 20 av H.w. undered                                                                                               |                                 |                        | 10.                    |                      | D           |    | I    | 4                    | יים.<br>1 | 1                             | L L         | Mo |  |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|------------------------|----------------------|-------------|----|------|----------------------|-----------|-------------------------------|-------------|----|--|
| 551 34*41' 25"<br>552 34*4 '50" | 82*23'20" J.G. Ridgeway<br>H2*09'55" Harold Cooper<br>82*23'40" Mr. McDanial<br>H2*23'35" Landrum's Uphols-<br>Lory | do<br>Burdelte<br>Robbins<br>do | 1963<br>11/52<br>10/48 | 90<br>315<br>65<br>140 | 80<br>56<br>59<br>60 | 6<br>6<br>6 | 27 | 1948 | 20<br>30<br>20<br>26 | ggn       | flat<br>draw<br>slope<br>hill | D<br>I<br>C | Pa |  |

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|                      | e 25 Reci                                            |                                                      | s in Greenville Co<br>Owner                                                | Driller                      | ę                             | Dep<br>(fe               | th                     | ter.<br>es)      | Water<br>Depth<br>below        | ievel                  | gallons<br>nute)      | type                          | aphic<br>tion                   | Use              | Reusrks            |
|----------------------|------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------|------------------------------|-------------------------------|--------------------------|------------------------|------------------|--------------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|------------------|--------------------|
| Well                 | Latiude                                              | Longitude                                            |                                                                            |                              | Date<br>drille                | Totel                    | Casing                 | D1ame<br>(Inch   | land<br>sur-<br>face<br>(feet) | Date                   | Yield (<br>per mi     | Rock                          | Topograph1<br>situation         | ñ                |                    |
|                      |                                                      |                                                      | Sanoma Elementary                                                          | Robbins                      | 8/52                          | 170                      | 75                     | 6                | 15                             | 1952                   | 10                    | ggn                           | flat                            | P                |                    |
| 54<br>55<br>56       | 34*39'45''<br>34*41'15''<br>34*44'10''               | H 2 2 4 ' 00''                                       | School<br>Mrs. Kilpatrick<br>Skyland Drive-in;<br>Shady Lane Traff-        | do<br>do                     | 1/57<br>8/50                  | 125<br>83                | 65<br>58               | G<br>6           |                                |                        | 5<br>7-8              | នួត្តក<br>ខ្លួតក              | flat<br>hill                    | D<br>C           | Ра                 |
| 57<br>58             | 34*42105"<br>34*36130"                               | 82 22 05                                             | er Park & Gas<br>Station<br>Mr. Blakely<br>Mr. McKelvey<br>Mr. Christerfer | do<br>do<br>do               | 2/45<br>1/45<br>4/48          | 153<br>118<br>29         | 17<br>90<br>22         | 6<br>6           | 25,84<br>6<br>17,39            | 10/62<br>1945<br>10/62 | 25<br>10              | ggn<br>ggn<br>gr              | flat<br>flat<br>slope           | ם<br>ם<br>ם      | abd<br>Pa          |
| 59<br>50<br>51<br>52 | 34*34140''<br>34*59100''<br>34*56120''<br>34*56130'' | 82*20'40"<br>82*15'55"<br>82*24'35"                  | T.T. Dill<br>Mock Shermun<br>A.T. & T.                                     | Harris<br>Robbins<br>do      | 6/35<br>10/60<br>1963         | 070<br>109<br>175<br>100 | 51<br>75<br>20<br>35   | 6<br>6<br>6      | 49<br>275<br>17                | 1955<br>1963<br>1953   | 9<br>12<br>1<br>25-30 | bhgn<br>gac<br>gac            | flat<br>slope<br>hill<br>slope  | 0<br>D<br>I<br>D | Pa<br>ebd<br>R, Pa |
| 53<br>54<br>55<br>56 | 34*56145"<br>34*56105"<br>34*49100"<br>34*49100"     | 82*21'15"<br>82*27'05"                               | W, Homer Langley<br>Mrs, Harrington<br>Herman Smith<br>Martha Harrison     | do<br>do<br>do<br>do         | 6/53<br>9/56<br>12/56<br>3/50 | 162<br>212<br>70         | 75<br>32<br>30         | 6<br>6           | 75                             | 1956                   | 4                     | g SC<br>g g n<br>m a<br>g g n | slope<br>hill<br>slope<br>slope | ם<br>ם<br>טם     | Рв                 |
| 57<br>58<br>59       | 34*49 00"<br>35*03 05"<br>35*02:00"                  | 82°27'10''<br>82°27'50''<br>82°25'30''               | Dewey Gilreath<br>Mr. Slocksbury<br>Troy Stiles<br>Spear's Chicken         | do<br>do<br>do               | 4/53<br>11/63<br>4/58<br>6/51 | 191<br>125<br>185<br>145 | 22<br>41<br>118<br>110 | 6<br>5<br>6      | <i>₹∠</i>                      | 1.1.1                  | 5<br>4<br>5           | bgn<br>bgn                    | slope<br>slope<br>slope         | ם<br>ם<br>ם      | R                  |
| 70<br>71<br>72       | 35*01:35"<br>34*55:15"<br>34*55:10"                  | 82°25'20''<br>82°25'50''<br>82°25'30''               | Farm<br>Calvin Gentey<br>Mr. Hudson<br>Charles Ross                        | do<br>do<br>Brockman         | 11/55<br>10/63<br>1962        | 154<br>135<br>112        | 100<br>35<br>50        | 6<br>5<br>6      | 30<br>40                       | 1955<br>1962           | 3<br>3<br>15          | g s c<br>g s c<br>g s c       | flat<br>flat<br>hill            | ם<br>ם<br>מ      | R<br>Pa            |
| 3<br>4<br>5<br>6     | 34*55 10"<br>34*53 10"<br>35*07*15"<br>34*47*15"     | 82°15'25'<br>82°20'15'<br>82°32'05''<br>82°21'20''   | J.D. Vickery<br>Mr. Friddle<br>A.E. Johnston, Jr.                          | Robbins<br>do<br>do          | 4/53<br>7/56<br>10/48<br>9/61 | 17-1<br>155<br>87<br>113 | 103<br>50<br>73        | 6<br>6<br>6<br>5 | 20<br>30                       | 1953<br>1948           | 15<br>15<br>6<br>10   | ng sc<br>mg gn<br>ms<br>ms    | flat<br>valley<br>slope<br>flat | D<br>D<br>D      |                    |
| 7<br>8<br>9<br>0     | 34*45'05"<br>34*59'05"<br>34*50'30"<br>34*46'15"     | 82°17'20''<br>82°14'00''<br>82°17'55''<br>82°21'55'' | Harry Garraux<br>Louis Smith<br>Caldwell Harper<br>R.L. Greenman           | do<br>Sloan<br>Robbina<br>do | 5/62<br>8/54<br>1/53          | 318<br>120<br>42         | 25<br>35<br>17<br>72   | 6<br>6<br>6      | 60<br>15 ·<br>20               | 1962<br>1953<br>1960   | 4<br>5<br>15          | ៣៩៩៦<br>១៩១<br>៩៩០<br>៩៩០     | hill<br>slope<br>hill<br>flat   | 000              | Ра                 |

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|                                                                                  | Lois                                                                                                                                                    |                                                                                                                                                                                  | s in Greenville Co<br>Owner                                                                                                                                                                               | Driller                                                           |                                                                                                | Dep                                                                           |                                                                | 5                                         | Water<br>Depth<br>below             | level                                        | i (gallons<br>minute)                                                  | type                                                                                                                                                                                    | opographic<br>situation                                                                  | Use                                                                                         | Recarks                          |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------|-------------------------------------|----------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------|
| well                                                                             | Latitude                                                                                                                                                | Longitude                                                                                                                                                                        |                                                                                                                                                                                                           |                                                                   | Date<br>drilled                                                                                | Totel                                                                         | Casing                                                         | Diamet<br>(inche                          | land<br>sur-<br>face<br>(feet)      | Date                                         | Yield (<br>per m1                                                      | Rock                                                                                                                                                                                    | TopogJ                                                                                   | ñ                                                                                           |                                  |
| 582                                                                              | 34*45*05                                                                                                                                                | 82*23'25"                                                                                                                                                                        | Miller Mobile Ibm                                                                                                                                                                                         | Robbins                                                           | 10/58                                                                                          | 210                                                                           | 85                                                             | 6                                         |                                     |                                              | 8                                                                      | ggn                                                                                                                                                                                     | flat                                                                                     | с                                                                                           |                                  |
| 583<br>584<br>585<br>586<br>587<br>588<br>587<br>588<br>589<br>591<br>592<br>593 | 34*51*45<br>34*51*50<br>34*53*05<br>34*53*35<br>34*53*35<br>34*53*35<br>34*53*20<br>3*53*10<br>34*53*20<br>34*53*20<br>34*53*20<br>34*53*20<br>34*44*15 | 82°29'10'<br>82°28'50'<br>82°29'10''<br>82°27'15''<br>82°20'35''<br>82°20'35''<br>82°20'45''<br>82°20'45''<br>82°20'45''<br>82°20'45''<br>82°20'50''                             | Trailer Court<br>H.E. Runge<br>E.W. Montgomery<br>Henry Theodore<br>Ed Means, Jr.<br>Furman Norris, Jr<br>Tum Beucham<br>Mr, Gregory<br>R.H. Grant<br>Mr. Cannon<br>Mrs. Essie Weeks<br>Oak Grove Trailer | do<br>do<br>do<br>do<br>do<br>Willis<br>Robbins<br>do<br>do<br>do | 5/50<br>5/50<br>1/47<br>11/52<br>6/51<br>5/51<br>1958<br>1954<br>5/50<br>5/50<br>11/54<br>8/59 | 116<br>144<br>182<br>146<br>109<br>157<br>45<br>102<br>94<br>50<br>130<br>204 | 50<br>45<br>60<br>38<br>57<br>55<br>40<br>55<br>48<br>98<br>98 | 6<br>6                                    | -10                                 | 1947                                         | 25<br>10<br>15<br>25-30<br>15-20<br>25<br>25<br>15-20<br>10<br>5<br>20 | gsc<br>gsc<br>gsc<br>gsc<br>gsc<br>gsc<br>gsc<br>gsc<br>gsc<br>gsc                                                                                                                      | slope<br>hill<br>slope<br>hill<br>flat<br>slope<br>slope<br>flat<br>flat<br>flat<br>draw | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | B, Po<br>abu<br>abd<br>abd<br>Pa |
| 594<br>595<br>596<br>597<br>598<br>599                                           | 34 44 13<br>34 37 30<br>34 37 35<br>34 37 35<br>34 37 35<br>34 37 35<br>34 43 20<br>34 44 20                                                            | 82*23*25"<br>82*23*25"<br>82*23*25"<br>82*17'00"<br>82*21*20"<br>82*20'15"                                                                                                       | Court<br>Suril Co.<br>do<br>Mr. Spillers<br>Pisgah Methodist<br>Church & house<br>Frederick F. Curr<br>E. B. Hendricks                                                                                    | 00<br>00<br>00<br>00                                              | 6/60<br>6/60<br>7/50<br>9/61<br>8/61<br>11/60                                                  | 250<br>200<br>93<br>76<br>320<br>101                                          | 56<br>20                                                       | 6<br>6<br>6                               | 6<br>33.30                          | 1950                                         | 15<br>30<br>20<br>10<br>7<br>4                                         | 8 8 1<br>8 1 | flat<br>flat<br>flat<br>slope<br>flat                                                    |                                                                                             | Pa                               |
| 600<br>601<br>602<br>603<br>604<br>605<br>606<br>607<br>608<br>609<br>610<br>611 | 34 44 20<br>34 37 10<br>34 42 50<br>34 33 15<br>34 59 10<br>35 04 25<br>34 30 05<br>34 30 05<br>34 50 50<br>34 50 05<br>34 50 05                        | 82 * 18 ' 50''<br>82 * 27 ' 10''<br>82 * 27 ' 10''<br>82 * 18 ' 50''<br>82 * 18 ' 30''<br>82 * 18 ' 30''<br>82 * 18 ' 30''<br>82 * 28 ' 55''<br>82 * 28 ' 55''<br>82 * 28 ' 55'' | Fork Shoals Sch.<br>Ham Smith<br>David Lawless<br>John Holmes<br>Theron Few<br>Aldon Babb<br>C.H. Harbin<br>Norman Long<br>Standard Supply<br>Frank Taffer<br>Stafford Sign Co.                           | do<br>do<br>do<br><br>Kobbins<br>do<br>do<br>do<br>do             | 1/47<br>8/54<br>4/56<br>1948<br>1963<br>4/48<br>6/59<br>2/53<br>12/58<br>4/60<br>5/61          | 52<br>115<br>131<br>200<br>507<br>133<br>155<br>95<br>163<br>180<br>168       | 26<br>42<br>53<br>70<br>90<br>60<br>106<br>60                  | 6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 30<br>79.05<br>30<br>25<br>68<br>25 | 1947<br>1763<br>1963<br>1948<br>1959<br>1958 | 12<br>20<br>4<br>6<br>1-2<br>30<br>5<br>3-4                            | gr<br>ggn<br>ggn<br>bhgn<br>ggn<br>ggn<br>ggn<br>ggn<br>ggn<br>ggn                                                                                                                      | slope<br>fiat<br>slope<br>hill<br>slope<br>flat<br>slope<br>slope<br>slope<br>hill       | P<br>D<br>D<br>D<br>D<br>D<br>D<br>D<br>C<br>-D<br>D<br>C<br>C                              | Po                               |

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### Table 25 Record of Wells in Greenville County, South Carolina (continued).

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| 60<br>60<br>610<br>611 | *48*<br>  34*50*50<br>  34*50*05* | 82 28 10 | H. F. S<br>Not ONS<br>Standard Supply<br>Frank Taffer<br>Stafford Sign Co. | do<br>do<br>do | 07 P<br>27<br>12/58<br>4/60<br>5/61 | 95<br>3<br>180<br>168 | 60 | 6<br>6<br>6<br>6 | 25 | 1958 | 00<br>5<br>0-1 | ggn<br>Rgn<br>Rgn | s.<br>slope<br>slope<br>hill | υ<br>C - D<br>D<br>C |  |  |  |
|------------------------|-----------------------------------|----------|----------------------------------------------------------------------------|----------------|-------------------------------------|-----------------------|----|------------------|----|------|----------------|-------------------|------------------------------|----------------------|--|--|--|
|------------------------|-----------------------------------|----------|----------------------------------------------------------------------------|----------------|-------------------------------------|-----------------------|----|------------------|----|------|----------------|-------------------|------------------------------|----------------------|--|--|--|

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|          | 36 B (J. 0               | und of Wells           | in Greenville Cou                  | nty, South          | Carol           | ina (c       | <u>ontin</u> | <u>ued</u> ]     | Water                  | level | 2                  |              |                       |         |             |
|----------|--------------------------|------------------------|------------------------------------|---------------------|-----------------|--------------|--------------|------------------|------------------------|-------|--------------------|--------------|-----------------------|---------|-------------|
|          | <u>25. Reco</u><br>Locat |                        | Owner                              | Driller             |                 | Dept<br>(fee | .n<br>t)     | ster<br>hes)     | Depth<br>below<br>land | Date  | (gallon<br>minute) | t type       | pographic<br>ituation | 9eU     | Remarks     |
| Mell     | Latitude                 | Longitude              | Uwire                              |                     | Date<br>drilled | Total        | Casing       | Diamet<br>(Inche | sur-<br>face<br>(feet) |       | Yield<br>per m     | Rock         | Topogr<br>situa       |         |             |
|          |                          |                        |                                    |                     | 1930            | 41           |              | 48               |                        |       | 5<br>8             | mggn<br>ggn  | slope<br>valley       | D<br>Ir | D, Pa       |
|          | 35*07'25                 | 82°18'40<br>82 29'00   | C.W. Pittmen<br>Rochester, Liberty | Robbins             | 9/53            | 65           | 60           | 6                |                        |       | -                  |              | - 1 1 - 1             | D       |             |
| 3        | 34*50'00'                | 82 23 00               | Nursery                            |                     | 9/56            | 143          | 94           | 5                |                        |       | 15                 | mggin        |                       | D       |             |
|          | 35*07'30                 | 42 32'20"              | Harold Green                       | do                  | 9756<br>1959    | 125          | 75           | 6                | -16                    | 1959  | 20                 | gsc          | 5lope<br>flat         | D       | Pa          |
|          | 34°50'30                 | 12 28 05               | Hob Owens                          | do                  | 1959            | 165          | 50           | 6                | 20                     | 1950  |                    | mggr         | valley                | D       | ļ           |
|          | 35°05'45                 | 32 17 45               | M.L. Crain                         | Shuttles<br>Robbins | 6/59            | 78           |              | 6                |                        |       | 6<br>25            | ggn          | slope                 | D       | Graymon     |
|          | 34 50'05                 | 32 29 10               | footsie Lanford                    | do                  | 12/50           | 150          | 59           | 6                |                        | 1     | 25                 | gsc          | 31000                 |         | Farms       |
|          | 34 50 30                 | H2 2H 20               | Robert Martin                      | 40                  | 12/23           |              |              |                  | ļ                      |       | 1                  | mggn         | flat                  | D       | D, Pa       |
|          |                          |                        |                                    |                     |                 | 55           |              | 48               |                        | 1     | в                  | mg           | flat                  | D       |             |
| )        | 35*05 40                 | H2 17155               | M.L. Cruin                         | Robbins             | 3/50            | 52           |              | 6                |                        |       | 10                 | ma           | slope                 | S       | nbd         |
| 0        | 34 * 49 100              | 32 20 10               | J.H. Phillips                      | do                  | 1/47            | 125          | 43           | 6                | 15                     | 1947  | 10                 | mis          | hill                  | D       | abd         |
| 1        | 34*48'30                 | 82"20'15"              | Utramic Bannon<br>do               | (10                 | 1/47            | 123          | 43           | G                | 15                     | 1949  | 35                 | ms           | flat                  | D       |             |
| 2        | 34 18 30                 | 82*20'15               | ML, WILSON                         | ાંગ                 | 6/49            | 68           | 22           | 6<br>6           | 30                     | 1947  | 5                  | m S          | slope                 | D       | abd         |
| 3        | 34 19 30                 | H2 20 15               | Mrs. Abergrombic                   | do                  | 12/47           | 87           | 80           | 6                | 35                     | 19.18 | 8                  | gsc          | flat                  | D       | i           |
| 4        | jga *a9 '40' -           | 82119145               | Mrs. B.A. Griswold                 | do                  | 1748            | 117          | 98           | 6                |                        |       | 10                 | ggn          | flat                  | D       | abd         |
| 5        | 34*56'10                 | 82"23'15               | E.F. Palmer                        | ab                  |                 | 115          | 45           | 6                | -15                    | 1948  | 7                  | mggr         |                       | D       |             |
| 6        | 34 19 30                 | 82°27'10               | Bobby Mason                        | do                  | 3/48            | 90           | 60           | 6                | 10                     |       | 10-50              | ggn          | slope                 | D       |             |
| 7        | 35*02'05                 | 82 16'00               | Tom Graham                         | do                  | 5/50            | 140          |              | 6                | ļ                      |       | 25                 | ggn          | flat                  | D       |             |
| 8        | 34 51'00                 | 82 20 20               | Mrs. L. Caritson                   | do                  | 9/60            | 86           | 102          | 6                |                        | ł     | 25                 | gsc          | slope                 | D       | B, Ps       |
| 9        | 34 41 25                 | 82°21'55"              | Ralph Garlington                   | do                  | 8/61            | 135          | 102          | 124              |                        |       |                    | <b>B</b> gn  | flat                  | D       | 8, P8<br>C8 |
| 0        | 34 50 50                 | 82*16 25               | R.L. Smith                         | Chandler            | 1958            | 47           | 88           | 6                | [lows                  |       | 25-30              | 8 Ku         | draw                  | D       | Pa          |
| 1        | 34 54 10                 | 82°13'50"              | Alvin Gilreath                     | Robbing             | 6/54            | 91           | 56           | 6                | 60                     | 1963  | 10                 | ngg          |                       | D       | 1.1         |
| 2        | 34 43 40                 | 82°24'20''             | Clifford Pace                      | Hamilton            | 1963            | 95           | 30           | 6                | 1                      | 1     | dry                | m 5          | h111                  | C       |             |
| 33       | 35*07'15                 | 82°14'05'              | WSPA-TV                            | Southeast           | 1962            | 300          | ł            |                  | Í                      | 1     |                    | -            | 1                     |         | 1           |
| 34       | 35*10'15"                | 82*17 25               |                                    | ern Co.             |                 | 146          | 5.1          | 6                | 1                      | i     | 12                 | gsc          | h111                  |         | Pa          |
|          |                          | 82*21 '-10''           | Chos. Hewkins                      | Robbins             | 6/61            | 158          | 51           | 6                |                        |       | 2 - 4              | ggn          | slope                 |         | 1           |
| 35       | 34°55'10                 | 82 21 40<br>82°14'40'' | Paul Harrington                    | do                  | 5/61            | 320          | 1            | 6                |                        |       | dry                | m 9          | h111                  | 1       | 1           |
| 36       | 34 51 55                 | 82 14 40               | WS PA -TV                          | Southeast           | 1962            | 320          |              | 1                |                        |       | 1                  | 1            | flat                  | 0       |             |
| 37       | 35 10'15                 | 02 1, 20               |                                    | ern Co.             | 9/54            | 1 113        | 40           | 6                |                        | 1     | 4-5                | g s c<br>m s | draw                  | D       | abd         |
|          | 34*54'35                 | 82*24'20"              | A.M. Gerrald                       | Robbins             | 3/50            | 130          | 60           | 6                | 15.7                   | 7/62  | 20                 | m s          | slope                 | D       |             |
| 38       | 34 47 50                 | 82*19'20"              | T.A. Sizemore                      | do                  | 4/51            | 50           | 40           | 6                |                        |       | 20                 | 11.3         |                       |         |             |
| 39<br>40 | 34 47 55                 | 82*19'10"              | Mr. Hingson                        | do                  | 1 7 7 1         |              | 1            |                  |                        |       |                    |              |                       |         |             |

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|             | Location               |            | in Greenville Cou | Driller    |                 | Dept<br>(fee | t)         | er<br>(s         | Depth<br>below                 | Dule  | (gallon<br>minute) | type           | opographic<br>situation | Use    | Bonsrks   |
|-------------|------------------------|------------|-------------------|------------|-----------------|--------------|------------|------------------|--------------------------------|-------|--------------------|----------------|-------------------------|--------|-----------|
| ll          | Latitude               | Longitude  | ) Owner           | Delliet    | D∎te<br>drilled | Totel        | Casing     | Diamet<br>(Inche | land<br>sur-<br>face<br>(feel) | Date  | Yield<br>per =     | Bock           | Topog                   |        |           |
| 1           | Latitude               |            |                   |            |                 | 75           | 62         | 6                |                                |       |                    | RRu            | flat<br>draw            | C<br>C | Pa<br>dus |
|             |                        | в2*25'45'' | The Fireside Club | Kobbine    | 4/50            | 152          | 10         | 6                | l                              |       | 7<br>60            | g s c<br>s g n | slope                   | D      |           |
| 11          | 34 46 45               | n2*21'15'  | Cutulinu Motel    | do         | 5/60            | 60           | 41         | 6                |                                |       | 20-25              | ggn            |                         | p-c    | Shop L 2  |
| 42          | 14 52 55               |            | Miss Mary Harbin  | do         | 1/54            | 140          | 72         | 6                | 25-30                          | 1954  | 20-23              | 6.6            |                         |        | houses;   |
| 13          | 34 52 00<br>34 42 25   | 2 19 55"   | Thomas C. James   | 00         | 1.1.1           |              |            |                  |                                | ļ     | 10-12              | 880            | flet                    | D−C    | Trailer   |
| 1-1         | J4 42 2J               |            |                   | . Ju       | 11/54           | 150          | 98         | ti               | 1                              |       |                    | <b>5</b>       |                         | 1 1    | L 4 hous  |
|             | 34*42130"              | ,2*20'00"  | Estate of J.C.    | 40         | 1               | i ì          |            | _                |                                |       | 1                  | bgn            | flat                    | D      | Pa        |
| 15          | ]4 42 50               |            | Janies            | 40         | 8/53            | 101          | 51         | 6                |                                | Ì     | 12                 | Rec            | sìope                   | D      | Pa        |
| • •         | 04*59'55"              | 12*18150   | C.A. Howell       | 00         | 4/61            | 144          | 40         | 6                | ļ                              | 1     | 3                  | bhgn           | d now                   | D      |           |
| 10          | 3.1*5.1*50"            | a2*17*20"  | Dero Juckson      | 40         | 10/61           | 119          | 50         | <b>1</b> 5       | 70                             | 1953  | 25                 | មន្តព          | slope                   | D      |           |
| 47          | 35 00 05               | a2*20'30"  | J.S. Juines       | 40         | 4/53            | 216          | 75         | υ                | 10                             | 1     | 5-6                | ggn            | slope                   | U      |           |
| 48<br>49    | 34 \$1'45"             | 1,2*20135  | Tom Inglesby      | 40         | 3/60            | 80           | 30         | 0                |                                | 1     | 4                  | m S            | slope                   | P      | Pa        |
| 50          | 34 48 50               | 12.55,10,  | M.L. Kulley       | 00         | 2/60            | 150          | 60         | ່ ບໍ່<br>1 ບ     |                                |       | 10                 | 6 S C          | alope                   |        | Abd       |
| 51          | 34 47 50               | 12*19 '55" | Lancel Creek Sch. | 40         | 8/56            | 88           | 60         | ιü               | ļ                              | 1     | 12-15              | Rac            | 1101                    | D D    | 1 100     |
| 52          | 31.57 05               | 12"10' 10" | J.H. L.Le         | 00         | 3/53            | 102          | υ0<br>1 25 |                  |                                | 1     | 5                  | gsc            | flat                    |        | Pu        |
| 53          | 34*51'40"              | -2 27 45   | Mr. 1.103d        | - UU       | 3/53            | 101          | د ن        | L u              |                                |       | 7 - 8              | BRU            | h111                    |        | Pa        |
| 54          | 34*51'40"              | 12 21 15   | J.C. Leatherwood  | 40         | 11/36           | 55           | 70         | 1                |                                |       | 10                 | RRU            | hill<br>hill            | D      | Dry 10    |
| 55          | 34*44*45               | la2*20'05  | R.J. Littejohn    | d0         |                 | 220          | 1 15       | G                | 1                              | ]     | 1 2                | pBu            | h i i i                 | ļ      | Summer    |
| 56          | 34*48'20"              | 52 28 00   | Preston Lipscom   | - do       | 10/58           | 125          | [ 13       | Ĩ                |                                | Ì     |                    |                | slope                   |        | des       |
| ,57         | 34 56 55               | 52°00'20   | preston nep       | 1          |                 | ULC          | 17         | υ                |                                | 1     | UD.                | មួយ            | flat                    |        | Pa        |
|             |                        | 1          | White Hurse Mill  | - uu       | 4/50            | 108          | 30         |                  |                                |       | 5                  | gsc            | 1                       |        | 1         |
| 55          | 34*48'10"              | a2 20 00   | George Lathern    | 40         | 7/56            | 50           | 25         |                  |                                |       | 12                 | RRU<br>RRU     | flat                    |        |           |
| 59          | 34 54 45               | 82 26 JS   | no Lunsford       | do         | 6/61            | 102          | 1 -        | 6                |                                |       | 25-30              | ) ms<br>  ggn  |                         | 1      |           |
| 660         | 34 47 50               | 82 26 35   | Hes. JuAnn Murtin | ່ວ         | 4/50            | 295          | 48         | 6                | 1                              |       | 20                 | BBU            |                         | D      | 4         |
| i61         | 31 13 50               | 82 26 00   | White Horse Mill  | 1 00       | 6/55            | 86           |            | 6                |                                |       | 15                 | BB             |                         | a      |           |
| 5 10 2      | 34*48'10               | 82 19 10"  | NATVE MOUTIS      | 00         | 1/61            | 91           | 50         |                  | 1                              |       | 1 15               | BB             |                         | 1 0    |           |
| 663         | 34 51 00               | 82 25 30   | William Maxwell   | 00         | 9/52            | 75           | 43         |                  | 1                              |       | 1 10               | ggr            | 1 110                   |        | Pa        |
| 664         | 34 46'45               |            | J.B. Orders       | 00         | 7/59            | 98           | 29         |                  |                                |       | 25-3               | 1              |                         | . p.–< | abd       |
| 66 <b>5</b> | 34*50*15"<br>34*48'00" | 82*28'10"  | ILL MCSweeney     | 0b  <br>0b | 8/51            | 116          |            |                  |                                | 1953  | 1 -                | 1              |                         | D      | 1.        |
| 666         | 34 52'50               | 82*27'05"  | W JI MCCOULY      | 00<br>00   | 11/53           | 107          | 3          |                  |                                | 1.017 | 50                 | 1 -            |                         |        | PH        |
| 667         |                        | 82*17'50   | ' Mr. McDuniel    | 00<br>00   | 10/55           |              |            | -                |                                | 1957  | 1 1                | 1              |                         | 2 D    |           |
| 608         | 34 55 15               |            | J.C. Phillips     | do         | 12/57           |              | 3 8        | υ] 6             | ; 22                           | 1.50  |                    |                |                         |        |           |
| 669<br>670  | 1                      | 62*24'45   | J.D. Purks        |            |                 |              |            |                  |                                |       |                    |                |                         |        |           |

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See to set a wells of <u>Gereiville County, South Carolina (continued)</u>

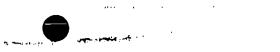
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| 25. Record of Wells                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                           | Depth<br>(feet)                                                                                                                                                              |                                                                                                                                              |                                                                                             | Depth<br>below                         | leval                                        | allons<br>ute)                                                                                                                     | type                                                                      | ∎pb1c<br>tion                                    | <u>م</u> | Ronarks                                    |
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| Latitude                                                                                                                                                                                                                                                                                                                                                        | Longitude                                                                                                                                                                                                                                                                                                                                                                                                                    | Owner                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Driller                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Date<br>drilled                                                                                                                                                                           | Total                                                                                                                                                                        | Casing                                                                                                                                       | Diameter<br>(inches)                                                                        | land<br>sur-<br>face<br>(feet)         | Date                                         | Yield (gal<br>per minut                                                                                                            | Rock 1                                                                    | Topographic<br>situation                         | Use      |                                            |
| 34*55*05''<br>35*08*50''<br>34*6'00''<br>34*55*20''<br>34*55*10''<br>34*55*10''<br>34*55*10''<br>34*55*20''<br>34*55*20''<br>34*50*50''<br>34*53*50''<br>34*53*50''<br>34*53*50''<br>34*53*50''<br>34*51*10''<br>34*51*10''<br>34*51*10''<br>34*51*10''<br>34*56*25'''<br>34*50*50'''<br>34*50*50'''<br>34*50*50'''<br>34*50*30'''<br>34*30*25'''<br>34*4*40''' | 82*24*25"<br>82*15*05"<br>82*19*50"<br>82*21*15"<br>82*21*15"<br>82*21*15"<br>82*25*50"<br>82*25*50"<br>82*16*20"<br>82*20*40"<br>82*20*40"<br>82*20*40"<br>82*20*40"<br>82*14*45"<br>82*20*40"<br>82*15*20"<br>82*20*55"<br>82*16*05"<br>82*16*05"<br>82*24*20"<br>82*24*20"<br>82*26*55"<br>82*26*55"<br>82*26*55"<br>82*26*55"<br>82*20*55"<br>82*27*05"<br>82*27*05"<br>82*19*30"<br>82*19*30"<br>82*19*30"<br>82*19*30" | Mrs. Dit Poe<br>Mr. Frohlick<br>Mrs. Alma Peurce<br>John H. Peden<br>Ned T. Dobson<br>N.E. Reese<br>Juck Robbins<br>Mrs. Leach<br>Joe Robbins<br>Dick Rountree<br>Juck Gardo<br>L.W. Burron<br>Bill Smith<br>Mr. Richle<br>Col. Singleton<br>Carlos R. Smart<br>Mrs. John Terry<br>E.U. Trummell<br>Mr. Taylor<br>H.L. Threatt<br>Junes Zopan<br>Wrenn Syracuse<br>Store<br>George Malnoff<br>Juck Galloway<br>Allen D. Southern<br>Theron E. Woods<br>Rumsgate Club<br>do | Robbins           do           do | 1/59<br>2/58<br>11/60<br>8/56<br>6/61<br>5/50<br>5/57<br>2/64<br>7/61<br>9/57<br>5/52<br>7/61<br>5/59<br>12/58<br>7/51<br>10/55<br>3/55<br>2/54<br>5/59<br>2/51<br>12/62<br>12/64<br>3/64 | 110<br>165<br>185<br>60<br>200<br>83<br>10<br>125<br>125<br>120<br>130<br>132<br>141<br>113<br>118<br>110<br>101<br>111<br>96<br>113<br>118<br>59<br>200<br>60<br>120<br>200 | 67<br>53<br>44<br>64<br>75<br>10<br>90<br>37<br>42<br>58<br>46<br>80<br>72<br>84<br>64<br>30<br>50<br>35<br>40<br>50<br>35<br>40<br>45<br>38 | 6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 50<br>39.62<br>10<br>71<br>30<br>10.68 | 1959<br>7/62<br>1957<br>1952<br>1955<br>1955 | 30<br>50<br>25<br>3<br>4<br>1<br>6<br>15<br>12<br>3-4<br>3<br>7<br>4<br>20<br>15<br>7-8<br>7<br>15-20<br>8-10<br>3<br>5<br>8<br>15 | 880<br>881<br>881<br>882<br>882<br>882<br>882<br>882<br>882<br>882<br>882 | flat<br>valley<br>slope<br>hill<br>slope<br>hill |          | Pa<br>abd<br>R<br>Pa<br>Pa<br>Pa<br>R<br>R |

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Table 25. Record of Wells in Greenville County, South Carolina (continued).

#### EXPLANATION

USE:

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      P = Public Supply
      (municipal water systems, schools, colleges, etc.)

      D = Domestic Supply
      (residential use only)

      C = Commercial Supply
      (churches, motels, restaurants, filling stations, stores, and other small business establishments)

      I = Industrial Supply
      (used in manufacturing or production processes)

      S = Stock Supply
      (live stock and poultry)

      Ir = Inrigation Supply
      (nurseries, etc.)
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B = Bored well
R = Rock sample
Ca = Complete chemical analysis
Pa = Partial chemical analysis
abd = Abandoned well
des = destroyed well
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                                                                                                                                                                                                                                                                                                                                                           | Card                                                                                                            |                                         | 515                                                    | t) es |                                                                                  | 111                      |             |                                        |                                                     | د ۱۰ م و دار د |                                                                                      |                                                             | <b>ا</b> ، ر ا |               | Jaintovi 1   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|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------|-------|-------------|---------------------------------------|------------|--------------|-----------------------|-----------------------------|-----------|---------|---|
|              | <pre>48EktS GRV-2463 Cone Hills TV-54<br/>Bentonite pellets from 19.5' to 20.5'</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5 of Travelers Rest | París Nountain - 940                                                                                            |       |             | 05/15/1000<br>Scoundbater Protular    | +1<br>+2   | : :          | · :                   | 9V<br>3.50 05/14/1990 >     |           |         |   |
|              | agebas Rav-2464 Cone Hills P-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S of Inavelers Rest | jiscon 822500<br>Paris Hountain                                                                                 | -1 20 | 13 AN       | 05/16/1 <sup>449</sup>                | - 1        |              |                       | PV I DO I I I D             |           | •       | 1 |
|              | Sentonite cellets from 1.5' to 2.5'<br>18E127 GRY-2465 Cone Hills EXT-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5 of traveters Best | 345279 822594                                                                                                   | -1.00 | 15 AH       | Grown-Swater Frot. (oc.<br>05/18/1990 | 15<br>- 1  | 11 5         | -!                    | -1.00 / / P                 |           |         |   |
|              | Jestonite pellets from 32.0' to 39.0'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WV of Greenville    | Paris Bountain (15740 322215)                                                                                   | -1.00 | <u>to n</u> | 471112                                | 03         | ካባሪ          | •                     | -1.90 / /                   | <i>ci</i> | <2      | ١ |
|              | (18E-+01-CAV-0333-+- #c=3iet.av                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     | Scenville 061                                                                                                   | -1 00 | 13 1        | / /<br>Ratains                        | ++<br> 16  | ng 6         | 25                    | -1 00 / /                   |           | ¢¢      |   |
|              | LIBL AD2 GEV- OLK 2 Y W XCC+ 4+ Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | AW of Greenville    | HS10 315250 822205<br>Greenvalle 061                                                                            |       |             | (3/01/135)                            | -1         |              | ,                     | ·I 00 / /                   |           | sp      | ) |
|              | 185                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | W of Greenville     | 345245 822915<br>Paris Hountain 040                                                                             | -1 00 | DQ U        | 41715<br>1 I                          | 126        | 15 6         | ,                     | (00 / )                     | •         |         |   |
|              | 485 492 589-0419 Krs. Hae Villians                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | H⊌ of Szeenville    | THE DISCUSSION AND AND                                                                                          | 1,00  | AS 0        | Robbins                               | 113        | 13 5         | +                     | -1.00 / /                   |           | sp .    | ) |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     | Greenville 061<br>FLAT 345205 822805                                                                            | 11.00 | 43 4        | 02/91/1952<br>Robbins                 | 102        | 15 5         | 4                     | -1.00 <i>J</i> /            |           | \$50    |   |
|              | (RENOI <del>SAY SHEE WHEL Audio Station</del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | XV of Greenville    | Greenville 961                                                                                                  |       |             | 11/01/1218                            | -1<br>251  | 70 6         | ا ب                   | -1,00 / /                   |           | i       | 7 |
| 1            | 48E001 PIS-043. ETTIOT Salson                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Saluda Lake         | 315215-822945<br>Greenville                                                                                     | ·1 00 | ŝd d        | Robbins<br>//                         | -1         |              |                       |                             | ł,        | 4       |   |
|              | is<br>18E007 <u>115-0018 John 1</u> 2(500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Saluda Leke         | 115230 822920                                                                                                   | -1.00 | <u>00 0</u> | Robbini<br>/ /                        | 155        | <u>)</u> 0 6 | 15                    | -1 00 / /                   |           |         | ) |
|              | is                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Saluda Live         | Greenville 061<br>315230 822930                                                                                 | -1 00 | 69          | Pebbins                               | ng         | ·! •         | 2                     | -1.00 / /                   | 1         | s       |   |
|              | 136303 #15-0010 Lenneth Frafaire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     | Sr##nville 061<br>315530-822020                                                                                 | -1 00 | *n n        | 7 /<br>Fithias                        | -1<br>;23  | •5 5         | 13                    | 35 CO / /                   | . P       | 5       | ) |
|              | 136                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | on Saluda River 🧋   | Sceenvalle 261                                                                                                  |       |             | 1.1                                   | ۱۰<br>بری  | ن وه         | 4                     | -1.09 / /                   |           | 5       |   |
|              | 15<br>195002 <del>215 0:00 3111 331105116*</del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | nr, das en Saluda A |                                                                                                                 | -! 00 | ůů n        | 5355175<br>/ /                        | 1,1        |              |                       |                             |           |         | ) |
|              | 15<br>13[p03_FIS <del>-2424_Br 2:0</del> 028535                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Saluda Lake         | 3+5120 822915                                                                                                   | -1.00 | 29 N        | 2000105                               | 127        | 10 A         | 10                    | -1 00 / /                   | i         |         |   |
|              | is                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | n af frannilla      | Sreenville 061<br>HSID 345145 322910                                                                            | 1.00  | 60 6        | / /<br>Rebbini                        | 116        | 50 6         | 25                    | ·1 00 / /                   |           | (bs/01) | } |
|              | 48E 904 - 194-19531 W E - 27157e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | W of Greenville     | Greenville 061                                                                                                  |       |             | 05/01/1950<br>Robbies                 | 1-<br>141  | 15 0         | . 10                  | -1.09 / /                   | . 0       | (65/04) |   |
| 1            | 138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | W of Greenville     | HTOP 345150 322850<br>Greenville 061                                                                            | ·I CO | ÛÛ "        | 05/01/1959                            | •1         |              |                       |                             | r         | (bs/94) | ) |
|              | 485 4000 CPU-0600 Xe- + + + + 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | rm of Greenville    | VALL 345140 822855                                                                                              | -1.00 | 00 O        | tobbins<br>07/01/1751                 | 101<br>-1  | 35 4         | 1                     | -1.00 / /                   |           |         |   |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | , y of Greenville   | Greenville 061<br>315122 322833                                                                                 | -1,00 | 00 SY       | tellett                               | :80        | : <u></u>    | 3                     | 00.00.07/10/1-47 P.<br>PV   |           |         | ) |
|              | 125-111 194-1395 21147 5 1138 51035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     | Sreenville 061                                                                                                  |       |             | 02/12/1983<br>Setuins                 | -1<br>116  | -            | 1                     | ·[ •] •] / /                | (         | 1130    |   |
|              | 135                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ¥ of Greenville     | 5121 315140 302735<br>Greenville 061                                                                            |       |             | 09/31/131 T                           | • •        |              |                       | 51.69 112°12'54-2           | (         | 150     | • |
|              | 125-1102 2221 2240 - 11 (1314) - 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | v of Greenville     | 5111 115145 022715<br>5746091114 051                                                                            |       | 13 1        | , selidite.<br>Selidite.              | ::'        |              |                       |                             |           | 11:0    |   |
|              | HAR LEAD TOY-ARDS SI YATTEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | y of Greenville     | Greenvilte – 951<br>Urne Skrivo Brotic                                                                          | : 13  |             | 112211                                | ;::        | <u>`</u> } / |                       | in . ,                      |           | · · · · | , |
| ,            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     | Greenville                                                                                                      |       | 12.2        | 19701-1111<br>Politica                |            | - 1          | :                     | -1 cn 1 /                   |           | 1789    |   |
| 1            | 125                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | W of Greenville     | Greenvillo (61                                                                                                  |       |             | 01/01/1 <sup>1</sup>                  | :<br>:1:   | - 6          | . 1                   | -1 C0 / /                   |           | C!Sp    |   |
| 1            | ISE - SAD SEA COST ST. LIGAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ¥ of Greenville     | FLAT 315140 822715<br>Gr+tx111e 061                                                                             | ·1.00 |             | 1056163<br>01/01/1013                 | ·:         |              |                       |                             |           |         |   |
|              | 186-111 -524-2310 1230-112 - 1+++++                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | , W of Greenville   | 145103 300300                                                                                                   | .00   | 9 - 9 - R   | 08/03/17/3                            | 454<br>- 1 |              | <b>к</b> <sup>л</sup> | 10-00-04-04-04-05-05<br>19- |           |         |   |
|              | S 108 1 190'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Greenville          | Greenville 061<br>0843 345125 822600                                                                            | -1.00 | n es n      | Robbins                               | 217        | 15           | n 15                  | 3,00 / /                    |           | C/SP    | , |
| 1            | 18E - +50t-111-2027 Southern Weaving-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | areenviste e        | Greenville C61                                                                                                  |       | ) as a      | / /<br>2005 ( AS                      | 225        |              | 4 12                  | 11,00 / /                   |           | Clap    |   |
|              | 125                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Greenville          | 2819 315125 822600                                                                                              | *1,0  | 1 214       | 1 1                                   | · !        |              |                       |                             |           | Cisp    | , |
|              | 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - | , Greenville        | \$1\$130 \$22519<br>578247132 273                                                                               | 1.0   | 5 18        | 1.1                                   |            |              | : ::5                 |                             |           |         |   |
| -   <i>'</i> | A MARINE CONTRACTOR OF A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | S- Greenville       | ci ۶۲ , 16110 , 61510 , 61510 , 61510 , 61510 , 61510 , 61510 , 61510 , 61510 , 61510 , 61510 , 61510 , 61510 , | • : • | ) (s *      |                                       | • • •      | •            | · '1                  | 1 15 00 1 <i>1</i>          |           | *:>s    |   |
| ł            | 135-135-137-13-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     | Cryanyetta (151<br>8580 (315155) 922530                                                                         |       | n 18-1      |                                       |            | <b>.</b> .   |                       | 1 ** ·                      |           | t ne    |   |
| L            | 135                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Greenville          | Sreenville 061                                                                                                  |       |             | 11                                    |            |              | <u>د</u> ۲            |                             |           | P:09    |   |
| 1            | 130                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Greenvalle          | 512555 922525<br>5145 - 5119 - 5119                                                                             | -1.0  | 0 :5 1      | 1 1                                   |            | 1            |                       |                             |           | C2:0    |   |
| 1            | 136 MA CENTRAL BLEEN HUR SCHUTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Graanwij]a          | 6111                                                                                                            | ·I 1  | J (j )      |                                       |            | • 41<br>•    | 4 J1                  |                             |           | **      |   |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     | يەت مەربىي داۋرومەت<br>                                                                                         |       | • •         |                                       |            | • •          |                       |                             |           | ••      |   |
|              | معمد عنها، وريانية وريم ويوم وين مدر                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |                                                                                                                 |       |             |                                       |            |              |                       |                             |           |         |   |

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## **APPENDIX D**

## GEOPROBE

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## THE USE OF SMALL DIAMETER PROBING EQUIPMENT FOR CONTAMINATED

#### SITE INVESTIGATION

by: Thomas M. Christy and Stephen C. Spradlin

Geoprobe Systems Salina, Kansas

#### ABSTRACT

The past decade has witnessed a dramatic increase in the number of contaminated sites being investigated in the United States. This increase in subsurface investigation has spurred a corresponding increase in the development of subsurface sampling tools and methods. The past five years, in particular, have seen the development of small diameter (1" to 1.4" O.D.) percussion driven probing tools which can be used for the recovery of soil vapor, soil core and groundwater samples. This development has placed heretofore unavailable tools at the disposal of site investigators.

Mechanized, vehicle mounted soil probe systems apply both static force and hydraulically powered percussion hammers for tool placement. Static down forces up to 3,000 lbs combined with percussion hammers of eight (8) horsepower continuous output are typical on equipment available to the field investigator. Using these energies, probing tools have been used for sampling a variety of media at depths exceeding 70 feet.

Advantages of probing equipment which have contributed to its increasing usage in recent years include: ease of mobilization, absence of borehole cuttings, minimization of surface disturbance, and speed of sample collection.

This paper focuses on the field application of hydraulic probing equipment including: the suitability of probing operations with respect to various soil types and lithologies to probing operations; sampler types and recovery quantities for various media, and innovative probing applications presently being tested.

#### INTRODUCTION

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The purpose of this paper is to discuss the use of hydraulically powered soil probing equipment for soil vapor, soil core, and groundwater sampling applications, particularly as they relate to environmental site investigations.

Drilling equipment capable of cutting and removing soil and rock matter while advancing a borehole are the principal tools historically employed for subsurface investigation in the United States. These tools, developed originally for investigation of soil mechanical properties or for the purpose of installing water supply wells, have made a successful transition into the environmental arena. The past five years have seen the development of probing tools for use on certain environmental site investigation tasks previously accomplished with drilling.

In contrast to drilling techniques, probing tools do not remove cuttings from the bore hole, but rather depend on compression of soil or rearrangement of soil particles to permit entry and advancement of the tool string.

Although we know of no codification of the term "soil probing" or "probing tools", both terms shall be used in this paper to refer to samplers and tools which are driven into the ground using percussive action. This distinction will serve to separate soil probing tools from cone penetrometers or sampling penetrometers which rely on static force alone for advancement of the tool string.

This paper will discuss the capabilities of hydraulic percussion probing machines and the tools used for sampling various media.

### EQUIPMENT CONFIGURATIONS

In order to understand the use of soil probing tools for sampling purposes it is helpful to understand configurations in which this equipment is deployed and available to the field practitioner.

Steel probes driven into the ground using apparatus mounted in cargo vans have been previously discussed by Thompson and Marrin (1984, 1987), Tillman (1989), Schubring (1989), Joyner and Thomsen (1990), Howe and Gapinske (1991), and others. Typically, a hydraulic probing device is mounted in the back of a pick-up truck or cargo van as shown in Figure I. A probe unit mounted in a cargo van with an on-board laboratory is shown in Figure II. Other vehicles such as the Chevrolet Suburban shown in Figure III are also employed.

There are several factors which field investigators consider in selecting a carrier vehicle. Most investigators combine some form of field analytical capability with their probing unit and therefore require laboratory work space within the vehicle. It is also desirable to provide a secure enclosure for the hydraulic probe unit and tools. All of the vehicles shown in Figures I, II, and III use hydraulic pumps belt-driven by the vehicle engine to provide power to the probing unit. However, auxiliary engine type probe units are also in use.

One function of the carrier vehicle is to provide static weight for advancement of the probing tools. In practice, probing tools are advanced as far as possible using only the static weight of the carrier vehicle. Potential static forces applied by various carrier vehicles are shown on Figure IV. As can be seen from this figure, applied static force varies with the weight and cargo of the carrier as well as the distance that the probe unit is positioned from the carrier. This static force is often sufficient to advance a one (1) inch diameter tool string to depths of 20 feet in soils consisting of silts or low friction clayey silts.

Greater depth is achieved using the combined effect of the vehicle weight and hydraulic hammer percussion. Although various hammer configurations have been used in the field, the most common in use today applies an impulse force of 600 to 1200 pounds to the top of the probing tool string at a frequency of 30 Hz.

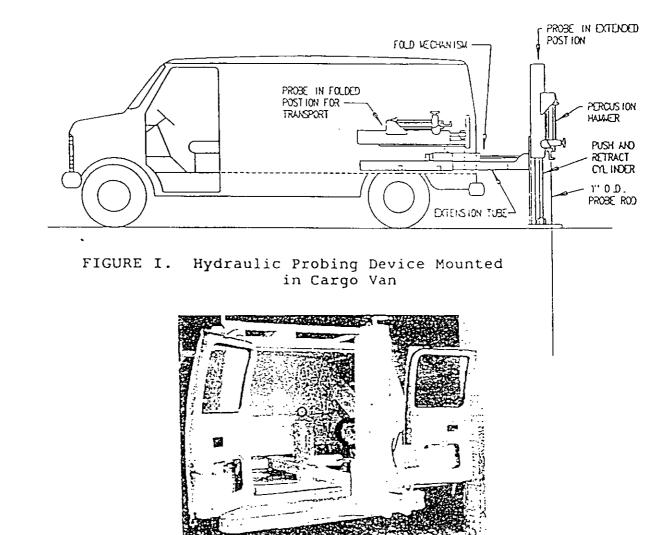


FIGURE II. Cargo Van with On-board Laboratory and Hydraulic Soil Probe

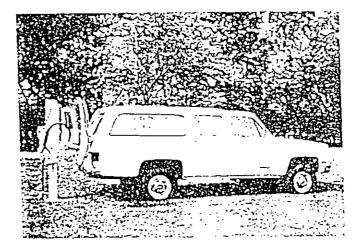


FIGURE III. Probe Unit Mounted in Chevrolet Suburban

Geoprobe Systems "

Percussion is often required when probing near the ground surface to penetrate hard packed soil and gravel zones. The probe is then allowed to penetrate using only static force until refusal is again encountered, at which time percussion is reapplied. Percussion is applied as required when probing through sands, gravels, hard pans, high friction clays, tills, fill materials, and surface frost. Advancement of probing tools beyond a depth of 24 feet without the use of percussion is rare in all geologic settings.

Prediction of refusal depth for probing tools is difficult. The percussive action of these probing units depends upon a rearrangement of vibrated soil particles in order to allow entry of the probe. Hence, cemented soils or rock are unsuitable for probing applications. Soils containing cobbles are often penetrated until a large or immovable rock is encountered. Probes will often glance off of cobbles and percussion can sometimes break smaller stones but larger boulders have essentially the same effect as bedrock.

Figure V shows penetration rates for probing to 30 feet in an alluvial setting using a Geoprobe 8-M equipped with 1 in. O.D. tools and a 1.10 in. O.D. conical point. Penetration rates shown on Figure V do not include the time to add probe rods to the tool string or to reposition the probing unit. The soils encountered in this instance required percussion driving of the probe rods the entire 30 feet. Total depth was achieved in 15 minutes. In practice, operators report probing to 20 feet and removing the tool string in a total time of 10 to 20 minutes. Soils which permit penetration rates of less than 1 ft. per minute would be classified as refusal material by most operators.

Sampling to 30 feet using probing units is common. Several operators have reported sampling to depths greater than 50 feet. One operator reported vapor sampling to 75 feet in an eolian silt using 1 inch diameter probe rods.

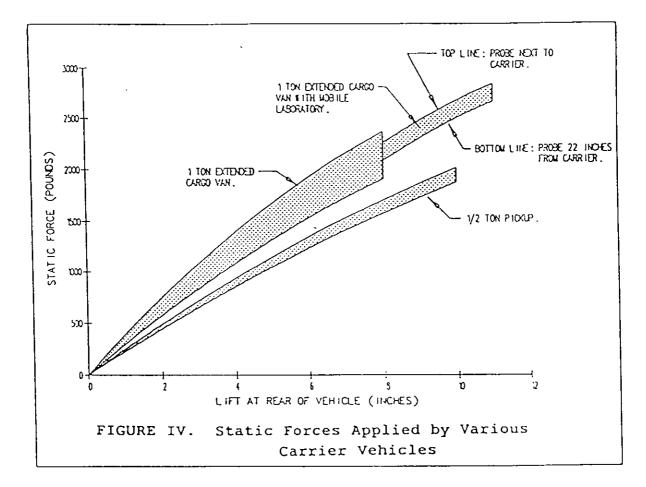
#### SOIL VAPOR SAMPLING

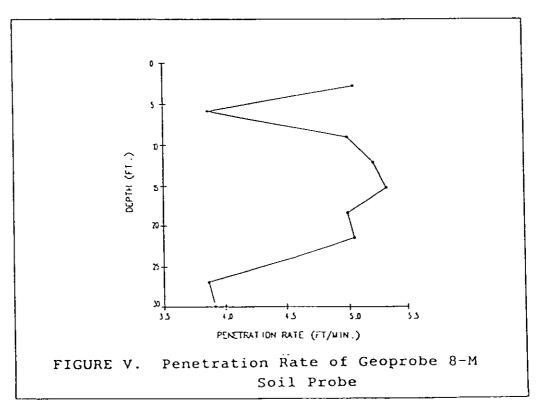
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Driven probes have been used for decades in preliminary foundation investigations but their current popularity in the environmental field began with the widespread use of soil vapor analysis for site investigation applications. The authors estimate that up to 50 percent of the work performed with hydraulic probing units involves soil vapor sampling.

Several different configurations of vapor sampling tools are currently in use in the United States. Three such configurations are shown on Figure VI. Tip arrangement (A) is the most commonly used of these three. In this arrangement, the probing string is pulled back, disengaging the expendable point and providing an open passage for vapor flow up the probe rods in response to an applied vacuum. Configuration (B) operates on the same principle as (A), with the exception that it utilizes a retractable point.

The system shown in (C) can actually be used with either an expendable or a retractable point. The major difference in this system is that it allows the attachment of low internal volume tubing to the vapor sampling point. This tubing is added to the probing rods after the rods have been driven to depth and pulled back to remove the drive point. Tubing materials for use in this application include Teflon, stainless steel, or polyethylene. The sorption characteristics of certain tubings may not permit their application in all circumstances. The major advantage of an





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inner tubing system is the low purge volume offered; from 2.5 to 15.1 ml/ft as opposed to 33 ml/ft for open probe rod. Inner tubing further serves as a continuous, non leaking, conduit which assures that the vapor sample of interest originated at the targeted sample depth rather than at the depth of intermittent rod joints.

The high pressure at the probe tip combined with the vibration of percussion hammer may serve to liquefy soils having high moisture contents. This may result in the flow of liquefied soils from the high pressure region near the tip to the inside of the rod. In fact, soils may flow to fill several feet of probe rod. For this reason it is sometimes desirable to equip the drive point with an O-ring gland seal. This measure is effective in sealing the probe rod end, though it may require removal of the drive point using an inner rod down the bore of the probe rods once the desired sampling depth has been achieved.

Once the proper depth has been achieved and the tip of the probe rod opened, a vacuum is applied to the surface end of the sampling string. Vadose zone soils are found to exhibit considerable variation in their response to applied vacuum. Table I shows the response of alluvial soils when subjected to an initial vacuum pressure of 21 inches Hg. In all cases, the probe rod was pulled back 0.5 inches from the probe tip, 1 liter of sample was collected into an evacuated tank, then a valve between the tank and the probe was closed and the probe rod allowed to recover to atmospheric pressure (column E). The maximum line pressure observed at the probe rod during purging is shown in column (D).

| (A)<br>POINT | (B)<br>DEPTH<br>(ft.) | (C)<br>TIME TO<br>COLLECT 1 1. | (D)<br>MAX. LINE<br>VACUUM PRESS. | (E)<br>RECOVERY<br>TIME |
|--------------|-----------------------|--------------------------------|-----------------------------------|-------------------------|
|              |                       | (min:sec)                      | <u>(in Hq)</u>                    | (min:sec)               |
| A            | 4                     | :02                            | 0                                 | < :01                   |
| В            | 9                     | :02                            | 9.5                               | < :01                   |
| С            | 11                    | :03                            | 1                                 | < :01                   |
| D            | 16.5                  | :29                            | 20                                | < :11                   |
| E            | 24                    | 7:28                           | 20                                | 7:00                    |

TABLE I SOIL RESPONSE TO APPLIED VACUUM

High clay content combined with high moisture content is responsible for the low air permeabilities observed in some soils. Extended sampling times as shown with point E in the table above can be troublesome for field samplers. Even minor leakage in the sampling train become significant when exposed to high vacuums for extended periods. It is common to find soils which will not yield vapor. It is therefore critical that the sampler be equipped to check the sampling train for leakage and to measure with certainty the flow of vapor from the probe.

In cases where soils do not yield vapor to the applied vacuum, the sampler may respond by either increasing pullback of the probe rod from the tip in order to expose greater surface area or more permeable zones, or apply a greater vacuum pressure. Alternately, it may be advisable to use the probe to obtain a soil sample at the location and determine the presence of contamination through soil analysis.

The concentration of contaminants in soil vapor is found to vary with purge volume. In practice it is common to select one purge volume, evacuate that purge volume, and then obtain a sample. Other investigators have reported connecting a vacuum pump and pumping for a fixed time period, in which case purge volume will vary. Figures VII and VIII

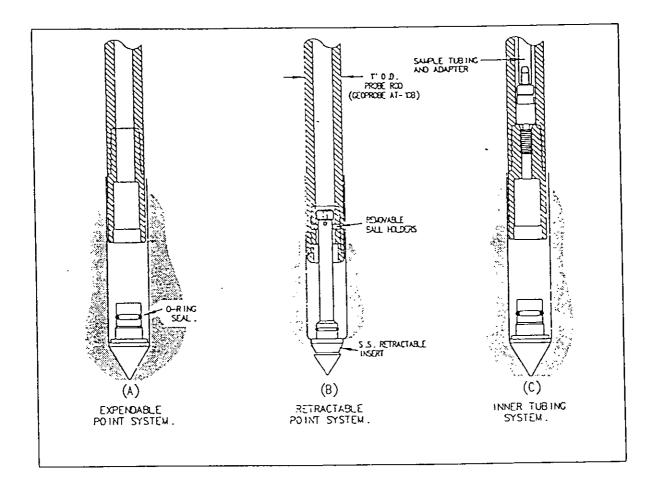


FIGURE VI. Soil Vapor Sampling Tip Configurations

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present data for extended purging and analysis at two separate vapor sampling points. In both cases, 250 ml purge volumes were removed from the sample point and a syringe sample obtained for analysis of toluene by GC/PID. Following completion of the analysis, a period of about 12 minutes, 250 ml of vapor was again purged from the system and the analysis repeated. The internal volume of the sampling train in both cases was estimated to be 75 ml.

These figures illustrate the wide variation in soil vapor concentrations which are typical of repeated soil vapor sampling at a given point. Occurrence of the highest concentration at the initial purge may be the result of phase transformation and storage depletion in the soil in closest proximity to the sample hole. Soil at the wall of the probe hole will experience the greatest change in pressure due to sampling, and presumably the greatest shift in the phase distribution of contaminants.

### SOIL SAMPLING

Unlike conventional drilling techniques, probing tools do not offer an open borehole into which open soil samplers can be inserted to obtain soil samples at depth. Therefore, special techniques and tools have been developed in order to push a closed sampler to depth, open the sampler, and obtain a discrete soil sample.

Small quantities of soil have frequently been obtained by probe operators by simply disengaging an expendable point at the target depth (Figure VI), pulling back 3 to 6 inches on the probe rods, and then redriving the rods. In this case the end of the rod is simply filled with soil that has collapsed into the open hole or is cut from the wall of the hole. Application of this technique is limited by the small quantity recovered removing the sample from the end of the probe rod can be a bothersome task.

The recovery of larger volumes of soil samples at depth has been made possible by the development of the "Probe-Drive Sampler" by Geoprobe Systems in 1989. A patent for this device, which is shown in Figure IX, is pending. This sampler serves as both the driving point and the sample collection device. The sequence of operation of this sampler is also shown in Figure IX.

The Probe-Drive Sampler is simply attached to the leading end of the probe rod and driven into the subsurface. The threaded stop-pin in the trailing end of the sampler assembly prevents the piston tip and piston rod from sliding into the sample collection tube as the assembly is being driven to depth. At the desired sampling depth, the stop-pin, which is threaded into the drive head of the sampler assembly, is removed using extension rods inserted down the inside diameter of the probe rods. After the stoppin has been removed, the sampler is again driven forward, this time collecting soil in the sample tube as the piston retracts. The assembly is then brought back to the surface and the soil sample extruded for analysis.

These samplers can be used to any depth that soil conditions will permit penetration by probing tools. Operators routinely use them to collect discrete samples at depths of thirty feet or more. There are three varieties of the sampler, each performing a slightly different task related to volume, regulatory compliance, or soil type. One design features a 1.125 in. O.D. steel thin wall tube with a built-in cutting edge. It collects a sample that is 8.75" long X .96" diameter (106 ml) and is used primarily for collecting samples used for field screening.

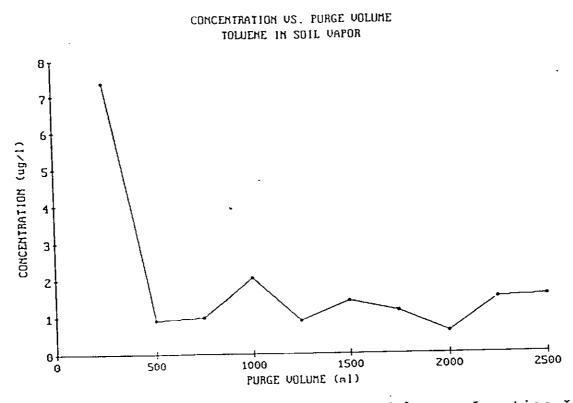
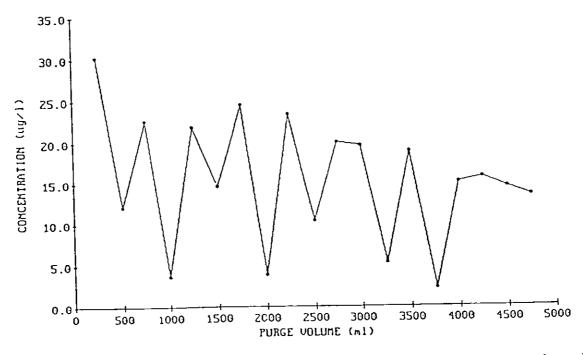


FIGURE VII. Concentration vs. Purge Volume - Location I

CONCENTRATION US. PURGE VOLUME TOLUENE IN SOIL VAPOR



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FIGURE VIII. Concentration vs. Purge Volume - Location II

This sampler performs best in relatively soft soils. Another variety features a 1.3 in. O.D. stainless steel sample collection tube and a removable hardened cutting shoe. It collects a sample that is a full 12" long X 1" diameter (158 ml) and is used when the protocol calls for stainless steel. It is well suited for use in rockier soils because of its hardened cutting shoe. The last variety of sampler available is larger (1.44 in. O."D.) than the others and uses either brass or acetate liners. It also has a removable hardened cutting shoe and recovers a sample that is 24" long X 1-1/8" in diameter (400 ml). It is used for protocols that require a larger volume of sample such as for TPH or heavy metals. This sampler is also used when visual logging of the soils is important. Again, the hardened cutting shoe makes this sampler suitable for use in rockier soils.

The forte of the Probe-Drive samplers is in providing operators with discrete soil samples that are relatively undisturbed. Operators can take samples at several different depths at the same location by re-entering the borehole each time a new sample is to be collected and driving the sampler to the next sampling interval. Vertical profiling of contamination is routinely accomplished in this manner. Continuous cores have been successfully collected using the same manner and utilizing the largest probe-drive sampler with the removable liner. In one such operation, a continuous core was collected from the surface to a depth of 18 feet through clays and silts in less than an hour and a half using the hydraulic probe. This required the sampling procedure to be repeated a total of nine times until total depth was achieved.

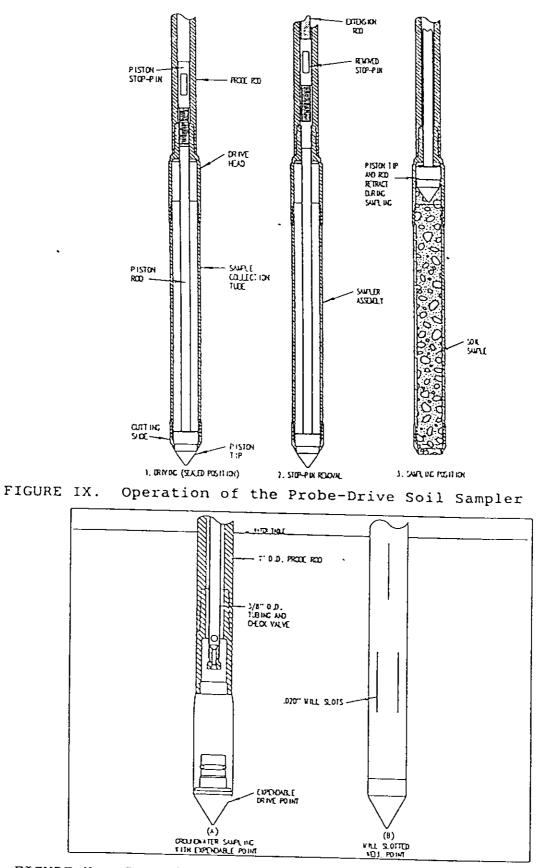
#### GROUNDWATER SAMPLING

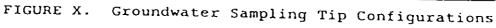
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Driven well points have a long history of use in groundwater extraction. Modern, hydraulically powered probe units are used in much the same manner, except using smaller diameter tools. Past use of percussion driven probes for groundwater sampling has been limited by several factors, chief among these being the suitability of the probe rod materials to withstand the prolonged percussion required to drive samplers to the water table. The operator was limited to sampling groundwater that was conveniently near the surface and in suitable materials. However, materials of construction have now improved to the extent that operators routinely sample groundwater at depths exceeding 30 feet with good

Two commonly employed methods of groundwater sampling are shown in Figure X. Configuration (A) simply uses an expendable point which is left off to expose the open bore of the probe rod. The rod is allowed to fill with formation water. Tubing with a bottom check valve is inserted down the bore of the probe rod. This inner tubing is oscillated up and down in rapid 6 to 8 inch strokes to produce a momentum pumping action. In most cases, a few feet of the tubing is filled and removed from the probe rods for collection of the sample. In cases where the probe rod penetrates permeable materials and the water table is shallow (approximately 12 feet or less), the pumping action of the inner tubing may be sufficient to lift sample to ground surface.

Configuration (B) shows a mill slotted well point. This open slotted tool is driven from ground surface into the water table where an inner tubing or smaller diameter bailer is inserted and samples collected as described above. The chief limitation of this tool is that the open slots for water sampling cannot be closed during probe driving, it is therefor subject to cross contamination by soils in the vadose zone.

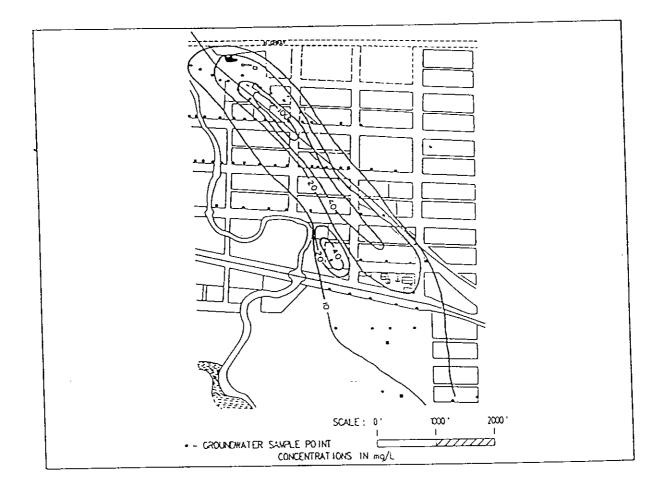


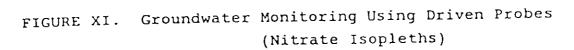


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Geoprobe Systems °





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Peristaltic pumps have been used successively to obtain groundwater samples using both probe configurations. It should be noted that both tools must be driven 3 to 5 ft. below the water table in order to obtain a groundwater sample.

An example of groundwater monitoring using these probes is shown in Figure XI. In this case groundwater samples were obtained for analysis of nitrates and pesticides using an expendable point arrangement. Sample depth varied with topography from 20 to 36 ft. Samplers were driven using a hydraulic probe. Encountered lithology consisted of Wisconsinian terrace deposits of clayey silts and fine sands. Approximately 500 ml of sample were recovered at each location. Up to twelve locations were sampled in a working day.

### SOIL CONDUCTIVITY PROFILING

Another promising use for percussion driven soil probes is the measurement of soil conductivity profiles. Soil conductivity is the inverse of soil resistivity, a property routinely measured in environmental site investigations using surface resistivity techniques, EM surveys (apparent resistivity), or borehole geophysics.

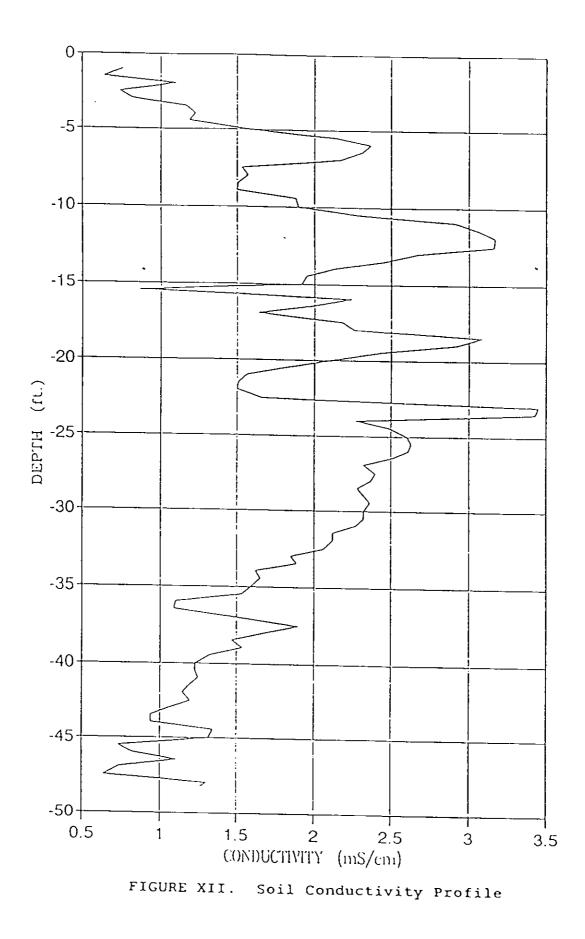
Soil conductivity measurements with driven probes are accomplished by driving a probe equipped with a Wenner type electrode array into the ground. This application of driven probes is complicated by the need to isolate the electrodes of the measuring array from the solid shaft of the probe rods with a material that will withstand both the vibration of the percussion probe and abrasion of encountered soils.

A conductivity profile made using an experimental probe for a 48 ft. sounding in alluvial materials is shown in Figure XII. Conductivity measurements of this type demonstrate potential for utility in determining the continuity of soil layers or completing or enhancing stratigraphic information between bore holes.

### SUMMARY

In the environmental field, probing can be an alternative to traditional, more intrusive, subsurface investigation methods. Unlike drilling, probing produces no cuttings, and obtain samples through probe holes only l to 1.5 inches in diameter. Hydraulic probing machines such as the ones discussed in this paper achieve penetration by compression and rearrangement of soil by utilizing the static force of the carrier vehicle and hydraulic percussion. Using static force alone, probes have been successfully pushed to depths of over twenty feet in some soils. By applying percussion to the static force, probes have been driven in excess of seventy feet deep.

Equipment can be rapidly mobilized to the site using an inconspicuous carrier vehicle which is usually a panel van or a pick-up truck. When equipped with the appropriate sampling tips, operators have the ability to collect soil samples, groundwater samples, and soil vapor samples using a hydraulic probing machine. Operators have reported collecting up to 15 groundwater samples, up to 30 soil samples, or up to 40 soil vapor samples in one day. Production rates are found to vary with soil conditions and the required depth of sampling. The development of small diameter probing equipment and techniques have given the environmental industry another set of tools to use in the characterization of site contamination.



Geoprobe Systems

#### REFERENCES

Howe, J. T., and T. Gapinske, 1991, Initial Site Assessments of Soil and Groundwater Contamination With A Mobile Laboratory: Equipment Use and Strategies, Presented At: NWWA Environmental Site Assessment Conference, July 1991, Columbus, Ohio.

Joyner, Sarah, and Kurt O. Thomsen, 1990, Areal and Vertical Soil Gas Sampling Techniques Used to Locate and Characterize a VOC Source. Proceedings of the 4th National Outdoor Action Conference on Aquifer Restoration, Groundwater Monitoring and Geophysical Methods. National Water Well Association, Dublin, Ohio, pp. 235-246

Marrin, D.L. and G.M. Thompson. 1984. Remote Detection of Volatile Organic Contaminants in Groundwater Via Shallow Soil Gas Sampling. Proc. Conf. Petroleum Hydrocarbons and Organic Chemicals in Groundwater. National Water Well Association, Dublin, Ohio, pp. 172-187.

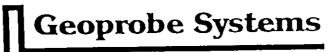
Schubring, Douglas G., 1989. Soil Gas Testing. Hazmat World, August 1989, pp 36-39.

Tillman, Ned, T.J Meyer, and Ken Ranlet. 1989. Use of Soil Gas Surveys to Enhance Monitoring Well Placement and Data Interpretation. Proceedings of Third National Outdoor Action Conference on Aquifer Restoration, Groundwater Monitoring and Geophysical Methods. National Water Well Association, Dublin, Ohio, pp.239-245.

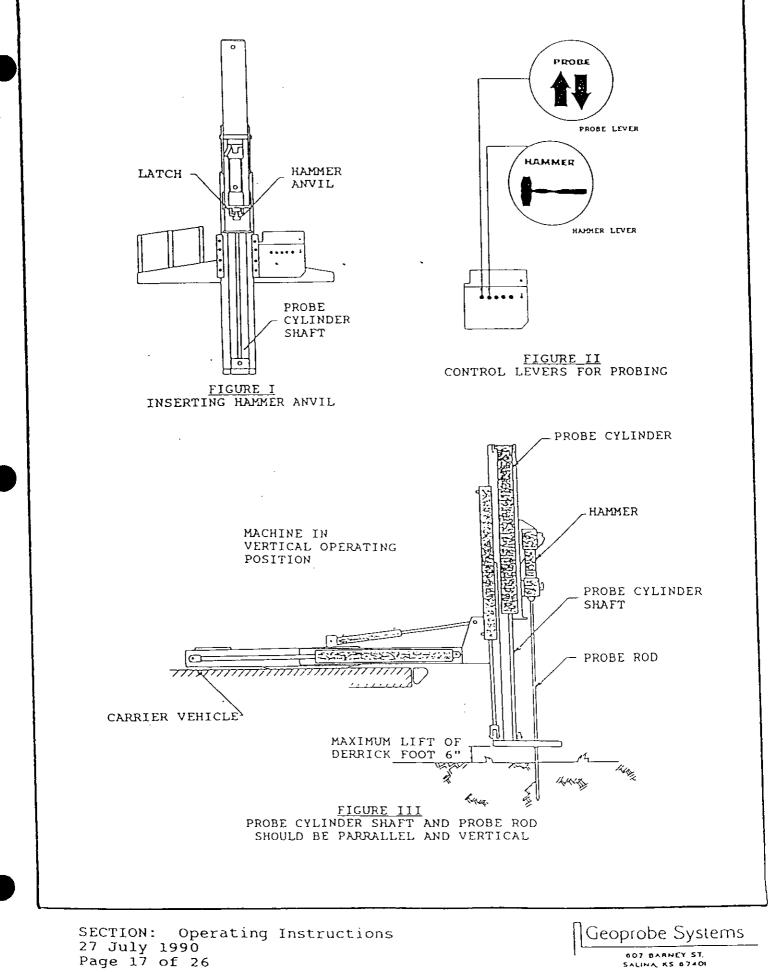
#### BIOGRAPHICAL SKETCHES

Thomas M. Christy, P.E. - Mr. Christy received his B.S. in Civil Engineering from the University of Missouri - Rolla in 1980. Since that time he has conducted numerous site characterization studies for industrial and regulatory clients. In 1987, Mr. Christy co-founded Geoprobe Systems (607 Barney St., Salina, KS 67401, (913)825-1842), a manufacturer of equipment for unsaturated zone soil vapor, soil core, and groundwater sampling. He serves as Vice President and his duties include the development and testing of sampling tools and the training of clients. Mr. Christy is a Registered Professional Engineer in the State of Kansas.

Stephen C. Spradlin, Geologist - Mr. Spradlin joined Geoprobe Systems in 1990 and serves as a technical advisor training new clients in the use and application of Geoprobe equipment. Before joining Geoprobe Systems, he spent four years with Target Environmental and Exploration of Columbia, Maryland, where he assisted in subsurface investigations for environmental applications and mineral exploration. Prior to 1986, Mr. Spradlin worked for Beren Corporation in Wichita, Kansas as a staff geologist and was involved in oil exploration and regulatory compliance. Mr. Spradlin received his geology degree at Wichita State University in 1984.



Boll Probing Equipment for Boll Gas, Boll Core and Groundwater Investigation



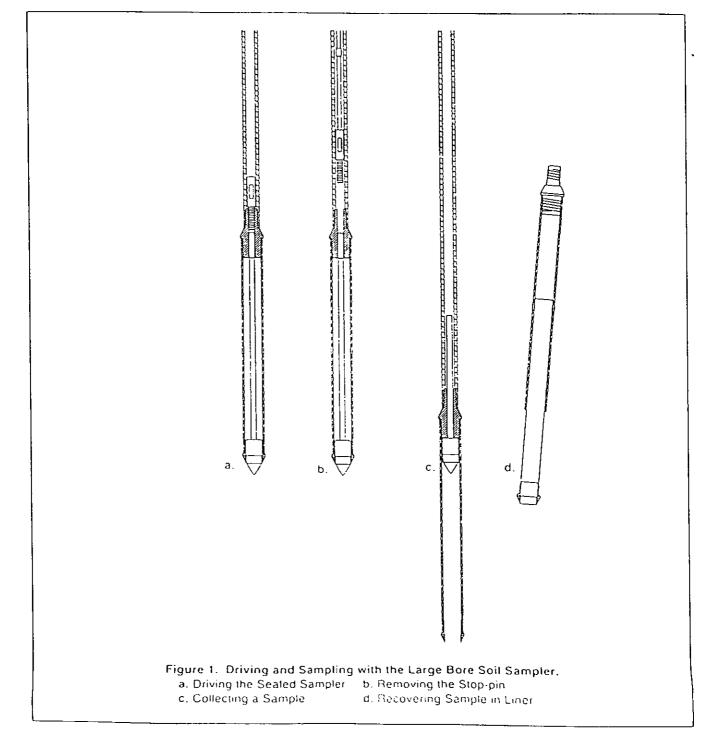
BUS: 19131 823-1842 FAX: 19131 825-2097

# GEOPROBE AT-660 SERIES LARGE BORE SOIL SAMPLER

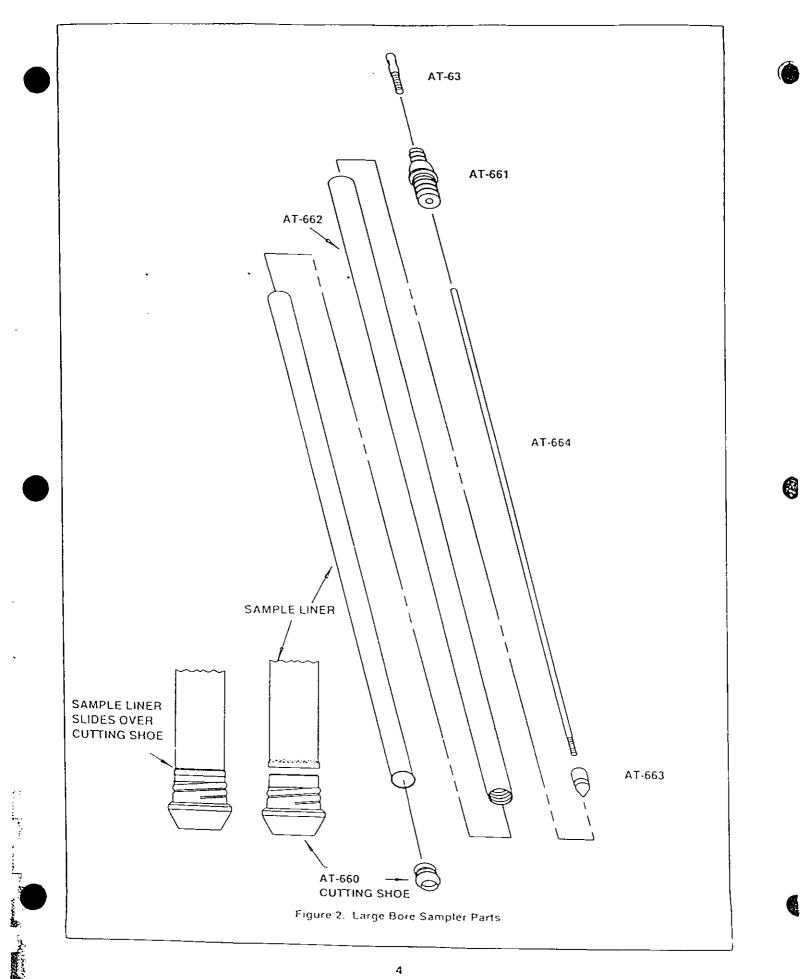
Standard Operating Procedure (SOP)

Technical Bulletin No. 93-660

## PREPARED: 9/21/1993



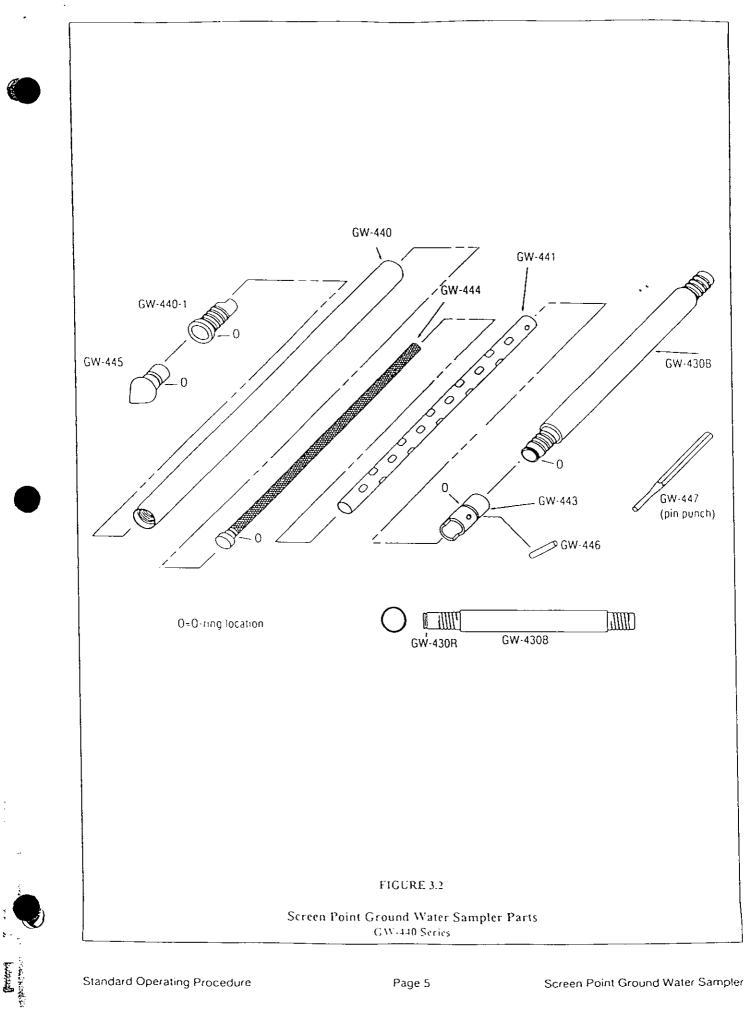
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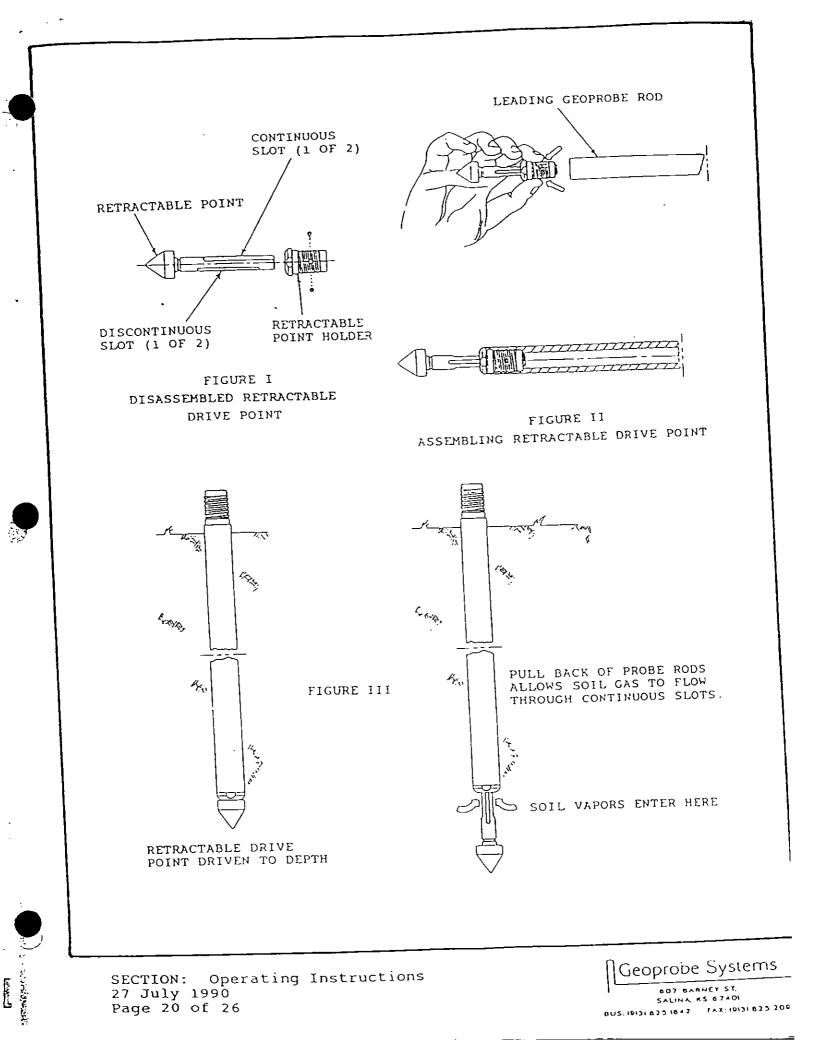


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November 7, 1994

4365A

Ms. Mary Anderson Environmental Quality Manager Appalachia II District Environmental Quality Control 301 University Ridge Suite 5800 Greenville, SC 29601

RE: Addendum to <u>Workplan; Soil, Sediment</u> and Groundwater Sampling; CSX/Vaughn Landfill; CSX Transportation; Greenville SC

Dear Ms. Anderson:

On behalf of Mr. Marshall Williams and CSX Transportation, AES thanks you for the opportunity to meet with you last week to discuss the proposed workplan for the collection of soil and water samples at the CSX/Vaughn Landfill on Bramlette Road in Greenville. Following is a summary of changes or additions to the workplan suggested by DHEC and AES' response:

• **DHEC** - A sample of the sludge-like material in the wetland should be collected and analysis performed to determine the composition, characteristics, and possible origin of the material

**AES** - A sample of the sludge-like material will be collected from the wetland east of the landfill material. This sample will be designated WE003 and will be analyzed for TPH, VOCs, Semi-volatiles, RCRA metals, and PCBs.

• **DHEC** - Include PCB analysis for all samples collected

AES - Agreed

• **DHEC** - Include TPH analysis for the soil and surface water samples collected in the wetlands adjacent to the landfill material. DHEC prefers a

method of TPH analysis other than 418.1

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AES - TPH analysis will be performed on all soil and water samples collected in the wetlands. EPA Method 413.1 will be requested as the laboratory analytical method

• **DHEC** - Semi-volatile analysis is not necessary for all samples collected from the landfill but should be included in analyses of the wetland soil and water samples

**AES** - Semi-volatile analysis will be performed on those samples collected from the wetland sediments and waters.

**DHEC** - At least two soil samples should be collected in the wetland at the south end of the landfill to assess horizontal extent

**AES** - Two samples will be collected from the soils in the wetland south of the landfill material. Those samples will be designated WS001 and WS002 and will be analyzed for TPH, VOCs, Semi-volatiles, RCRA metals, and PCBs.

Table 1 summarizes the sample IDs including the additional samples to be collected, the sample type (soil or water), and the analyses to be performed on each sample. Figure 1 indicates the location of each sample to be collected except those sediment samples to be collected in the wetlands. Wetland sediment samples will be collected based on field observations and screening during field operations. The actual location of sediment sample collection points will be noted on a scaled drawing to be included in a report of findings to DHEC.

As noted in Table 1, AES proposes to field screen those soil samples collected from the landfill for Volatile Organics using a photoionization device or other field screening device. Only those samples testing positive will be analyzed in the laboratory for VOCs. RCRA metals and PCB analysis will be performed on all landfill soil samples. Landfill groundwater samples will be analyzed for VOCs, RCRA metals, and PCBs. All wetland samples collected will be analyzed by the laboratory for VOCs as well as the other parameters noted in Table 1.

The original workplan stated that groundwater samples would be collected at all thirty three sample locations in the landfill. After further consideration, AES feels that this is unnecessary and proposes to collect groundwater samples from seven locations as designated on Figure 1. In this preliminary investigation, these seven locations should be adequate to assess impact to groundwater from the landfilling activities. Thank you for your consideration of this addendum. If you have any questions, please call me at (404) 454-1810.

Sincerely,

Dave Butler Project Manager

Enclosures

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cc: Marshall Williams/CSX Charles Bristow/DHEC

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## **APPENDIX C**

## DHEC CORRESPONDENCE

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Appalachia II Environmental Quality Control 301 University Ridge, Suitz 5800 Greenville, SC 29601-3677 803-241-1090 Fax: 803-241-1092 Serving Greenville and Pickens Counties

Promoting Health, Protecting the Environment

May 11, 1995

Mr. Marshall Williams CSX Railroad 6737 Southpoint Drive South Suite 100 Jacksonville, FL 32216

Re: Vaughn Landfill/CSX Real Property Bramlette Road Property Greenville County

Dear Mr. Williams:

Our office has received and reviewed your consultant's report on the above referenced site (Applied Engineering & Science, Site Investigation, March, 1995). We appreciate your expedient assessment and hope to facilitate continued investigation at the site.

After reviewing the Site Investigation we agree that further assessment at the site is necessary. The information gathered to date suggests that soils and groundwater at the site are being impacted by the tar substance identified at the site. Please prepare a Work Plan that will provide the information necessary to determine if remedial action is necessary at the site and if so, what form should it take. The work plan should provide for flexibility to be modified as the assessment proceeds.

Objectives for this workplan should include:

- 1) Determine the extent of the tar substance.
- 2) Determine the source of the tar substance.
- 3) Determine the vertical and horizontal extent of groundwater contamination.
- 4) Determine pathways of contamination migration to possible receptors.
- 5) Assess location LF024 for the source of heavy metals contamination.
- 6) Develop a site characterization including soils, geology, hydrology, and hydrogeology.

This workplan should be submitted to this office within 30 days of receiving this letter. If a problem meeting this timeframe develops, or if you have any questions, please contact me at (803) 241-1090.

Sincerely Aniston

Appalachia II EQC



Appalachia II Environmental Quality Control 301 University Ridge, Suite 5800 Greenville, SC 29601-3677 803-241-1090 Fax: 803-241-1092 Serving Greenville and Pickens Counties

Promoting Health, Protecting the Environment

November 21, 1995

Mr. Dave Butler Applied Engineering & Science 2261 Perimeter Park Drive, Suite 1 Atlanta, GA 30341

Re: Worklan for CSX/Vaughn Landfill dated August 1995

Dear Mr. Butler:

This office has reviewed the referenced workplan, and it is approved with the following comments.

(1) When the Tar Substance delineation work is performed north of Bramlette Road, groundwater sampling should be integrated with the soil sampling. Data collected could be used to help establish if permanent groundwater monitoring wells are needed in that area.

(2) The workplan is general in nature to allow flexabibility during the assessment. During implementation of the field work, this office should be kept updated with specific information concerning the assessment. For example, what methods will be employed to determine contaminant migration off-site in the Section, Contaminant Pathways.

Attached is a monitoring well approval, which will also cover any GeoProbe or temporary monitoring well installation at the site. Please note that the conditions are a part of the well approval.

If you have any questions please contact me at (803) 241-1090.

Sincerely La. C

Charles Bristow, Hydrogeologist Appalachia II EQC



Promoting Health, Protecting the Environment

Appalachia II Environmental Quality Control Serving Greenville and Pickens

 301 University Ridge, Suite 5800

 Greenville, SC 29601-3677

 803-241-1090

 Fax: 803-241-1092

MONITORING WELL APPROVAL

Approval is hereby granted to: Mr. Dave Butler Applied Engineering & Science 2261 Perimeter Park Drive, Suite 1 Atlanta, GA 30341

Location: CSX/Vaughn Landfill

Greenville, South Carolina

For the construction of at least six monitoring wells in accordance with the location, construction plans and specifications described in the August Workplan except as revised by the conditions listed below. The wells (except MW-3D) will be installed to bracket the upper saturated surface of the surficial aquifer for the purpose of assessing the ground water quality at the referenced site. Well MW-3D will be screened below a clay unit, or at a depth of 30 feet, whichever is encountered first.

If necessary, temporary wells or a GeoProbe will be used to screen for contamination north of Bramlett Road. The wells should be abandoned in less than 48 hours, or up-graded to permanent wells. The boreholes should be grouted from total depth, to the ground surface during abandonment.

Conditions:

1) The latitude, longitude and actual construction details will be

submitted to the Department within 30 days from completion of the field work.

2) All water quality measurements and analytical data obtained from the wells will be submitted to the department within 30 days upon receipt from the laboratory.

3) All wells construction must be performed by a South Carolina certified well driller.

4) Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity

5) Charles Bristow, in the Appalachia II District Office, should be notified a minimum of 48 hours prior to initiating field activities.

This well approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control's Regulations R.61-71. It is valid up to sixty days after the date of issue.

Date of Issue: 11-21-95

Charles Bristow Hydrogeologist Appalachia II EQC



#### MEMORANDUM

- To: Charles Bristow, Hydrogeologist Appalachia II District EQC
- From: Tom Knight, PG, Manager Geohydrologic Section Water Quality Assessment and Enforcement Division

Date: February 5, 1996

Re: CSXT (Bramlette Rd. Site) Assessment Report (3/95) Assessment Proposal (8/95) Greenville County

The reference submittals have been reviewed and I agree with the recommendations. The following comments are provided for your consideration:

#### Assessment Report

- The proposed actions for the landfill should be implemented unless additional actions are necessary for the tar substance.

- The source of the methylene chloride needs to be identified.

#### **Proposal**

- I agreed with the proposed assessment.

- I recommend that the approval of the monitoring wells be open ended so that CSXT can define the upgradient source area(s). Source determination/characterization should be a high priority.

- The vertical extent assessment should extend into the transition zone due do its potential hydraulic characteristics (i.e. potentially greater permeability that the saprolite).

- In potential source areas associated with the Coal Gasification Plant residuals (and possibly handling areas), I recommend that the groundwater be evaluated for the potential presence of DNAPL comprised of creosote.

- Cover should be established for the landfill as soon as is the feasible.

Bramlette Road Site Memo. February 5, 1996 Page Two

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- Due to the presence of gypsum board in the landfill debris, groundwater should be sampled for sulfate.

- I recommend that MW-2 be moved into the area of free product hydrocarbons.

- In evaluating exposure pathways, any potential toxic effects to biota, including in the wetland areas should be evaluated.

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

cc: Doug Johns

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# **APPENDIX D**

## PHASE II WORKPLAN

#### WORKPLAN

SITE INVESTIGATION AND MONITORING WELL INSTALLATIONS

CSX/VAUGHN LANDFILL

CSX TRANSPORTATION

Greenville, SC

August 1995

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# WORKPLAN

## SITE INVESTIGATION AND MONITORING WELL INSTALLATIONS

## **CSX/VAUGHN LANDFILL**

CSX Transportation Greenville, South Carolina August, 1995



# APPLIED ENGINEERING & SCIENCE, INC.

Atlanta, Georgia

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#### I. INTRODUCTION

Applied Engineering and Science, Inc. (AES), on behalf of CSX Transportation, Inc. (CSXT), submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) a report entitled <u>Site Investigation; Soil, Sediment, and Groundwater</u> <u>Sampling; Vaughn Landfill, CSX Real Property</u> in March 1995. The report included background information and results of a site investigation conducted in February 1995 by AES on CSXT property located on Bramlette Road in Greenville. The site had been used as an unpermitted landfill by Vaughn Construction and Demolition Company of Greenville. The results and recommendations of the report are summarized below.

"Approximately seven acres of floodplain of the Reedy River have been filled with demolition debris and yard waste to a depth of up to 14 feet. Excavations through the fill and borings advanced through the fill into the underlying native soils revealed the presence of a tar-like substance at the fill/soil interface. Additional hand auger samples collected in the surrounding floodplain soils also contained tars.

Laboratory analysis of the samples indicated a band of volatile and semi-volatile contamination in soils trending northeast to southwest through the fill. This band extends from the floodplain northeast of the fill through the northern half of the fill material, through the southwest corner of the fill, and into the floodplain southwest of the landfill. Groundwater was encountered at or below the native soil surface. Three groundwater samples contained elevated levels of volatile and semi-volatile compounds. Impacted groundwater was found along the west side of the landfill and likely extends west in the suspected downgradient direction toward the Reedy River.

Elevated levels of lead were revealed in soil samples throughout the site. Metals levels in sample LF024 were especially high. Groundwater metals levels were below MCLs except for arsenic slightly over MCLs in one sample and lead slightly over MCLs in two samples. Several surface water samples contained metals levels which slightly exceeded MCLs.

No source of metals, VOC, or semi-VOC contamination was identified in the landfill materials. Volatile and semi-volatile compounds appear to be the result of the tar-like substance which lies in native soils below the fill. No source for the tars was found; however, a coal gasification plant operated across Bramlette road northeast of the site until the 1960s. Semi-volatile compounds identified during the landfill investigation are consistent with those produced during coal gasification processes.

AES recommends the installation of monitoring wells to assess the vertical and horizontal extent of groundwater contamination. A minimum of six wells is recommended. Additional soil sampling should be conducted to assess the extent of the tar substance and to assess a possible source.

Location LF024 should be excavated to assess the source of heavy metals contamination at that location.

The south end of the landfill should be covered with clean soil to control odors and vermin, to keep debris from blowing away, and to improve appearances. An impermeable cap is not recommended for this landfill. Because the water table is at or close to the surface, water flows beneath and through the base of the fill. A cap would not prevent this type of infiltration."

In a letter to CSXT dated May 11, 1995, DHEC responded to the above referenced report and requested a workplan be submitted for further assessment at the site (DHEC letter, Appendix A). The letter requests further information on the following:

- 1) The extent of the tar substance
- 2) The source of the tar substance
- 3) The vertical and horizontal extent of groundwater contamination
- 4) Pathways of contaminant migration to possible receptors
- 5) The source of heavy metals contamination at location LF024

6) A site characterization including soils, geology, hydrology, and hydrogeology

This workplan has been prepared to address the concerns listed above and will outline proposed methods, expected results, and a schedule of events.

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Proposed field activities have been divided into six separate tasks which address the concerns raised by DHEC.

#### A. Extent of the Tar Substance

The tar-like substance identified during the initial investigation appeared to lie within the natural surface soils below the landfill materials and in parts of the floodplain adjacent to the fill.

East of the fill material, the substance was present in sample WE001 but was absent in sample WE002. Several hand auger samples will be collected in the area of WE001 and field screened both visually and with an organic vapor analyzer (FID, etc.). Once it appears the limits of the tar substance have been identified, confirmatory samples will be collected and analyzed by a laboratory for volatile and semi-volatile content.

West of the fill material, the substance was present in soil sample WW002, but was absent in both samples WW001 and DD002. As on the east side of the fill, hand auger samples will be collected and field screening performed to assess the limits of the tar-like substance.



South of the fill, no tar-like substance was noted in samples WS001 or WS002. No further sampling is planned for this area.

Because of the likelihood that the tar substance originated at the coal gasification plant north of Bramlette Road, several samples will be collected directly across the road from the landfill to assess the limits of the tar in that direction. The area has been filled since the plant ceased operations; therefore, the samples will be collected by either push-type technology (Geoprobe) or a standard drill rig equipped with split spoons to reach native soils.

#### **B.** Source of the Tar Substance

Interviews with several area residents, aerial photos from the 1950s, and past investigations indicate the former coal gasification plant at the corner of West Washington Street and Bramlette Road as the probable source of the tar substance on the site. Additional samples collected north of Bramlette Road during the next phase of the investigation may add further evidence for this possibility. Other possibilities for the source of the contamination will be considered and investigated.



#### C. Vertical and Horizontal Extent of Groundwater Contamination

Groundwater samples collected during the first investigation indicated an oily substance in the groundwater around sample location LF023. BTEX compounds and several PAHs were identified in groundwater samples LF023(A), LF025(A), and LF027(A) (trace amounts of ethylbenzene and xylenes were also identified in LF031(A)).

AES proposes to install six (6) monitoring wells to assess vertical and horizontal extent of groundwater contamination. Figure 1 is a site plan which includes the proposed well locations. The rationale for the proposed locations is as follows:

 $\underline{MW-1}$  - To be installed at the northeast corner of the landfill site along Bramlette Road, MW-1 will be used to assess groundwater quality in the suspected upgradient direction. The well will be installed within the surficial aquifer and will be screened across the water table. The water table is expected to lie within 10 feet of the surface.

 $\underline{MW-2}$  - Installed at the northwest corner of CSXT property adjacent to the CSX railroad office, MW-2 will be used to assess groundwater quality in the suspected downgradient direction of the landfill. This well will also be installed in the surficial aquifer and will be screened across the water table.

<u>MW-3D</u> - To be installed in the landfill in the area of LF025, MW-3D will be used to assess groundwater quality vertically. Native soils directly below the landfill materials consist of dense clay of varying thickness. Below the clay lies fairly uniform sands. MW-3D will be installed in the sand aquifer at the next confining unit or at 30 feet, whichever is encountered first. Continuous split-spoon sampling will be performed to determine the stratigraphy of the borehole. The surficial clay unit will be cased to prohibit the migration of contaminants to the sand unit through the borehole.

<u>MW-4</u> - To be installed east of the landfill at the east side of CSXT property, MW-4 will be used to assess groundwater quality in the suspected upgradient direction. The well will be installed in the surficial aquifer and will be screened across the water table. Laboratory analysis of groundwater samples LF001(A) and LF003(A) indicated no volatile or semi-volatile compounds present. The sample from MW-4 will be used to confirm the initial findings. It is possible that a temporary access road will need to be constructed to reach this well location.

 $\underline{MW-5}$  -  $\underline{MW-5}$  will be installed west of the fill material at the west edge of the CSXT property adjacent to the rail lines. The well will be installed in the surficial aquifer and will be screened across the water table. A sample will be used to



assess groundwater quality in the suspected downgradient direction from the landfill in line with LF029(A).

<u>MW-6</u> - The location of MW-6 is tentative and depends on the results of further soil sampling and the extent of the tar substance. The actual location may be further south in the floodplain or along the rail bed. The water sample collected from this well will be used to attempt to determine the horizontal extent of groundwater contamination in the southerly direction.

All monitoring wells will be installed by a South Carolina certified driller and will be constructed in accordance with the guidelines set forth in the document <u>South Carolina</u> <u>Well Standards and Regulations</u>, enacted June 2, 1985. The wells will be labeled with permanent identification plates indicating the date of installation, driller, top-of-casing elevation, total depth, screened interval, and static water level. The wells will be constructed of 2-inch Schedule 40 PVC casing and screen. Slot size of the screens will be 0.010 inch. It is expected that all wells will be constructed with casings extending above the ground surface and will be completed with steel enclosures with locking caps. If necessary, flush mount manhole covers will be used in areas of high traffic volume (adjacent to the CSX office). General well construction diagrams are included as Appendix B. Specific well construction diagrams and boring logs will be submitted for all wells following construction.

Following completion, the wells will be developed according to R.61.71.6-D to ensure sample collection of groundwater typical of the aquifer. Turbidity, pH, and specific conductance will be used as parameters to assess development.

Groundwater samples will be collected within 24 hours of development using clean disposable bailers. Samples will be analyzed for volatile and semi-volatile constituents (EPA methods 8260 and 8270). A laboratory certified in South Carolina will be chosen to perform the analyses.

The methods to be utilized in collecting the samples for this study will strictly adhere to the EPA Region IV <u>Standard Operating Precedures and Quality Assurance Manual</u>, issued Feburary 1, 1991. The standard operating procedures utilized by AES personnel in all sampling activities follow a standardized QA/QC procedure. The procedures are documented in the AES <u>Field Operations Manual</u>. Health and safety procedures will be reviewed each day before operations commence particularly those specified by CSX Transportation for all contractors on railroad property.

#### **D.** Contaminant Pathways

Included in this portion of the investigation will be an assessment of groundwater contamination and a characterization of the hydrogeology of the site to assess possible contaminant migration off-site. The possibility of surface migration of contaminants in runoff into the Reedy River will also be evaluated. Downstream surface water users and groundwater supply users will be identified. A well survey was conducted previously in the area and that information will be included. The potential impact of volatile contaminants on air quality will also be addressed. The information provided may be used to determine appropriate remedial actions if necessary.

#### E. Location LF024; Metals

Barium, cadmium, chromium, and lead concentrations at sample location LF024 were higher than other levels in samples collected within the landfill. That location will be excavated with a backhoe to attempt to identify the source of the heavy metals. All fill materials within a radius of ten feet of LF024 will be screened. Additional samples may be collected to confirm the previous findings. Information provided will be used to determine the need for and type of remediation at that location.

#### F. Site Characterization

A site characterization will be developed which includes soils, geology, hydrology, and hydrogeology. Information will be collected from site visits, previous investigations, well installations, state and federal publications, maps, and aerial photographs. Human activities on the site will be reviewed. This information will provide an overview of the site and a basis for future risk-based assessments.

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#### **III. SCHEDULE OF EVENTS**

Following approval of this workplan by DHEC, AES will begin preparations for field activities. The scheduling of well drillers, the Geoprobe, a backhoe, and a South Carolina certified laboratory must be coordinated. AES estimates three weeks preparation time. The completion of field activities may require another two and one-half to three weeks. Once laboratory results are received and the data reviewed, an estimated thirty days will be required for graphics and report preparation and review. Given these estimates, a completed report may be submitted to DHEC approximately thirteen (13) weeks following approval of the workplan.

# **APPENDIX A**

# SCDHEC LETTER TO CSX

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Appellachia II Environmental Quality Control 301 University Ridge, Suite 5800 Greenville, SC 29601-3677 803-241-1090 Fax 803-241-1092 Serving Greenville and Pickens Counties

Promoting Health, Protecting the Environment

May 11, 1995

Mr. Marshall Williams CSX Railroad 6737 Southpoint Drive South Suite 100 Jacksonville, FL 32216

Re: Vaughn Landfill/CSX Real Property Bramlette Road Property Greenville County

Dear Mr. Williams:

Our office has received and reviewed your consultant's report on the above referenced site (Applied Engineering & Science, Site Investigation, March, 1995). We appreciate your expedient assessment and hope to facilitate continued investigation at the site.

After reviewing the Site Investigation we agree that further assessment at the site is necessary. The information gathered to date suggests that soils and groundwater at the site are being impacted by the tar substance identified at the site. Please prepare a Work Plan that will provide the information necessary to determine if remedial action is necessary at the site and if so, what form should it take. The work plan should provide for flexibility to be modified as the assessment proceeds.

Objectives for this workplan should include:

- 1) Determine the extent of the tar substance.
- 2) Determine the source of the tar substance.
- 3) Determine the vertical and horizontal extent of groundwater contamination.
- 4) Determine pathways of contamination migration to possible receptors.
- 5) Assess location LF024 for the source of heavy metals contamination.
- 6) Develop a site characterization including soils, geology, hydrology, and hydrogeology.

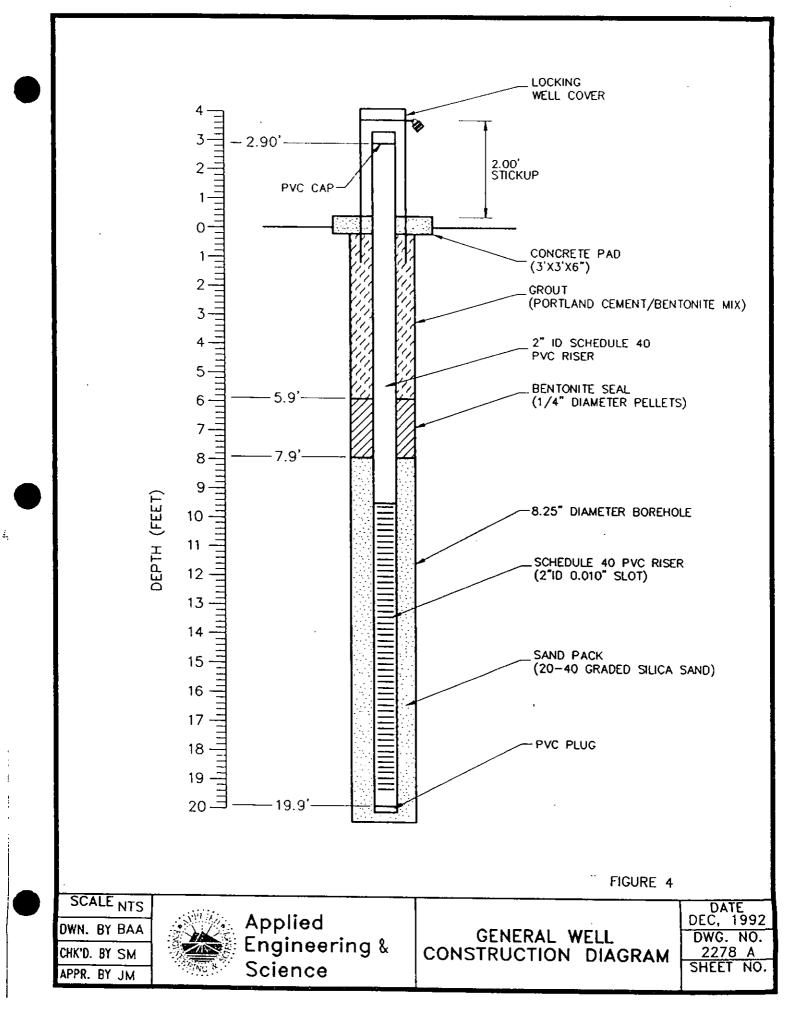
This workplan should be submitted to this office within 30 days of receiving this letter. If a problem meeting this timeframe develops, or if you have any questions, please contact me at (803) 241-1090.

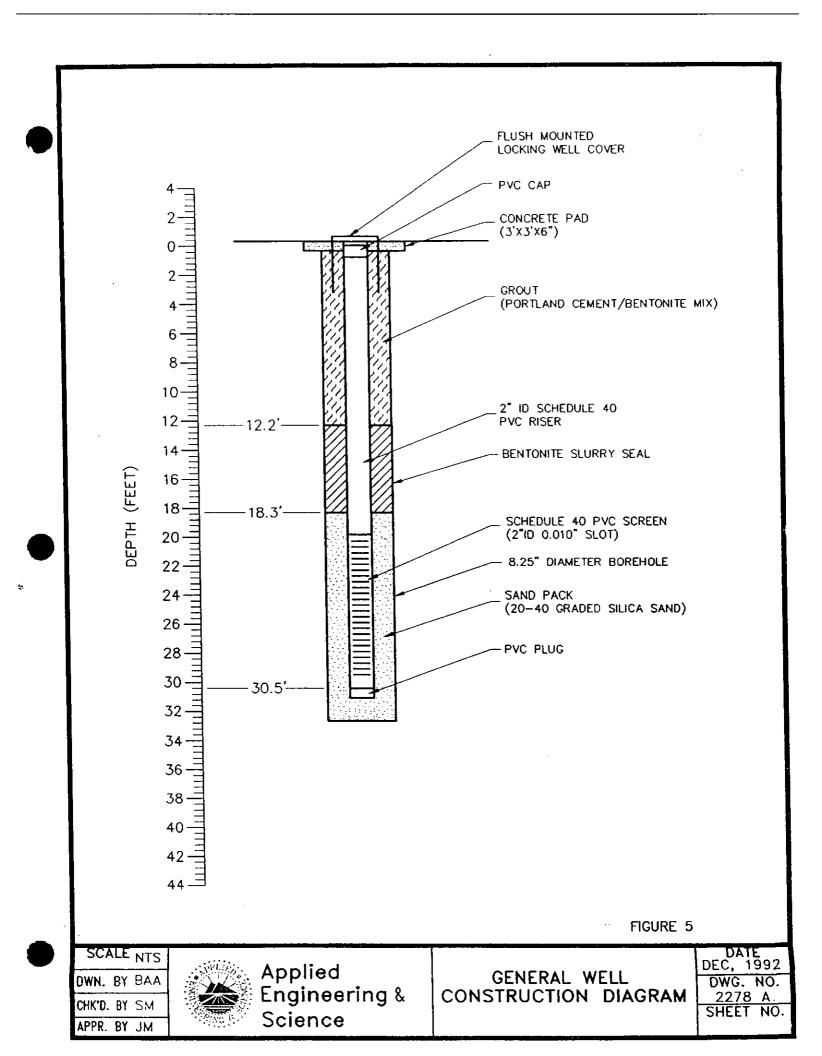
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Appalachia II EQC

# **APPENDIX B**

# WELL DIAGRAMS





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# APPENDIX E

# PHOTOGRAPHS

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Photograph 1 Ditch Entrance at West Washington St NE; DP Site



Photograph 2 Ditch, NE; DP Site





Photograph 3 Unvegetated Area; View West From East Gate; DP Site



Photograph 4 Flow Exiting at South Gate Onto Bramlette Rd;DP Site



Photograph 5 Runoff Entering Ditch 1; West of DP Site



Photograph 6 Ditch 1 West of DP Site; View to West



Photograph 7 Stormwater Entering Sewer; South Side of Bramlette Rd (Discharge Seen in Photograph 8)



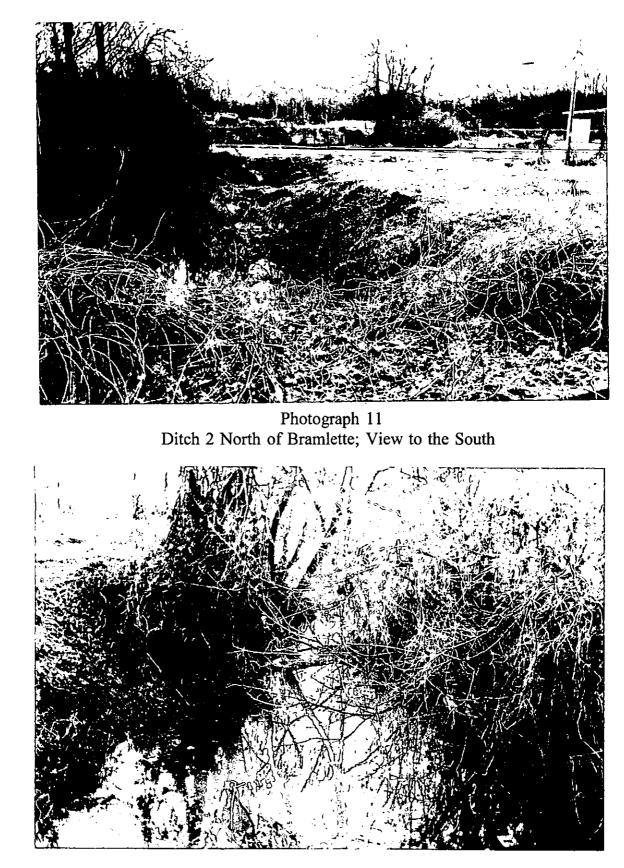
Photograph 8 Combined Discharge From Storm Sewer, Ditch 1; in Floodplain South of Bramlette Rd



Photograph 9 Entrance to Ditch 4; East Side of Landfill



Photograph 10 Ditch 4 Crosses Landfill; Receives Flow From Landfill Surface

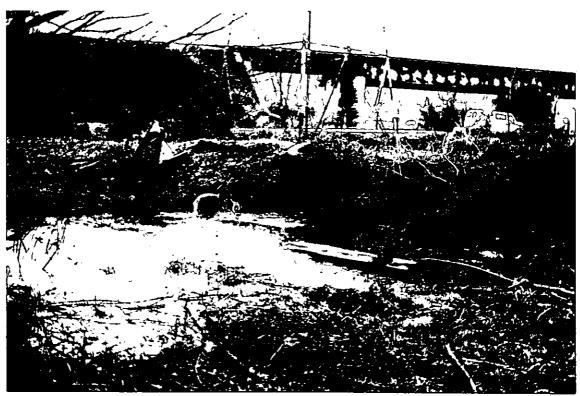


Photograph 12 Ditch 3 South of Bramlette; West Side of Landfill





Photograph 13 Ditch 5; Carries Flow South From Landfill to Willard St.



Photograph 14 Ditch 5 turns West at Willard St.





Photograph 15 Ditch 5 Flows Beneath RR Trestle and Enters Reedy River



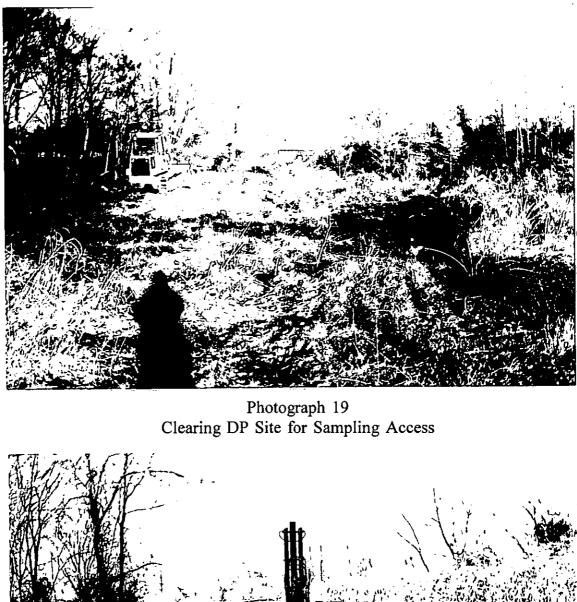
Photograph 16 Outfall for Ditch 5 into Reedy River

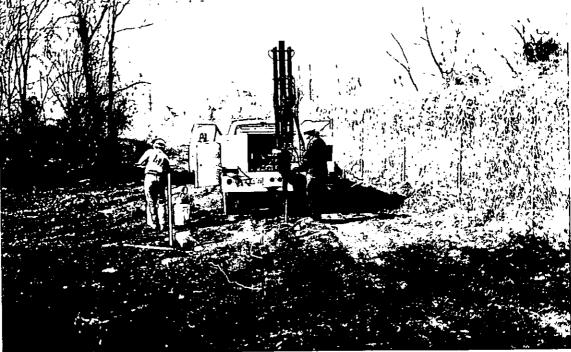


Photograph 17 Reedy River North of Bramlette Rd; Sample Location Reedy 1

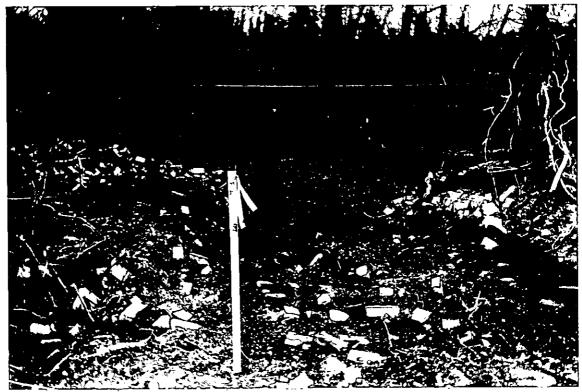


Photograph 18 Reedy River at Ditch 5 Outfall; Sample Location Reedy 2





Photograph 20 Strata Probe Crew Collecting Soil Sample; North Fence DP Site



Photograph 21 Sample Location DP 12; Flagged and Staked



Photograph 22 Split Spoon Sample DP4 3-6 ft; Note Coal Tar in Center of Sample



Photograph 23 View East From Tanker Truck; Note Circular Gas Holder Foundation



Photograph 24 View West From Tanker Truck, Ditch 1 Beyond Fence



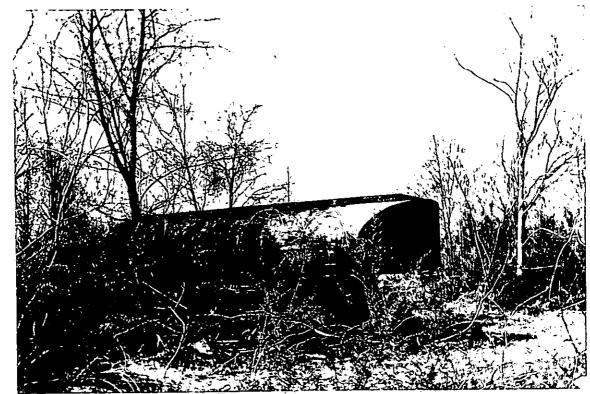


Photograph 25 View North From Tanker Truck; Retort House Foundation

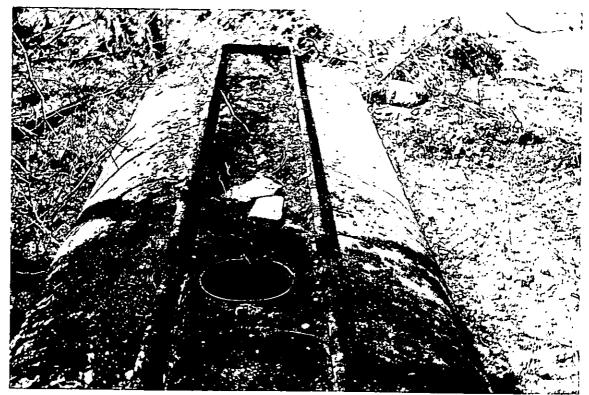


Photograph 26 Coal Tar Saturated Soils; North of Retort House Foundation



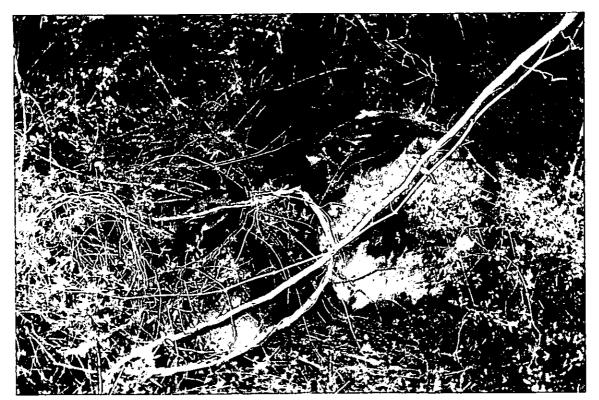


Photograph 27 Abandoned Tanker Truck; "Associated Petroleum Carriers, Spartanburg, SC"



Photograph 28 Top of Tanker Truck, no Product Visible in Tanker





Photograph 29 Two Storage Tanks  $\simeq 600$  gallons, no Product



Photograph 30 Third Storage Tank



Photograph 31 Removal of Fuel Oil Tank, Southwest Corner of Landfill

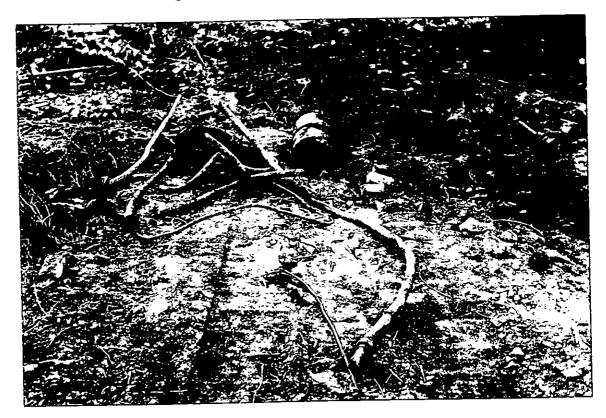


Photograph 32 Fuel Oil Tank; Slight Petroleum Odor Noted at Puncture



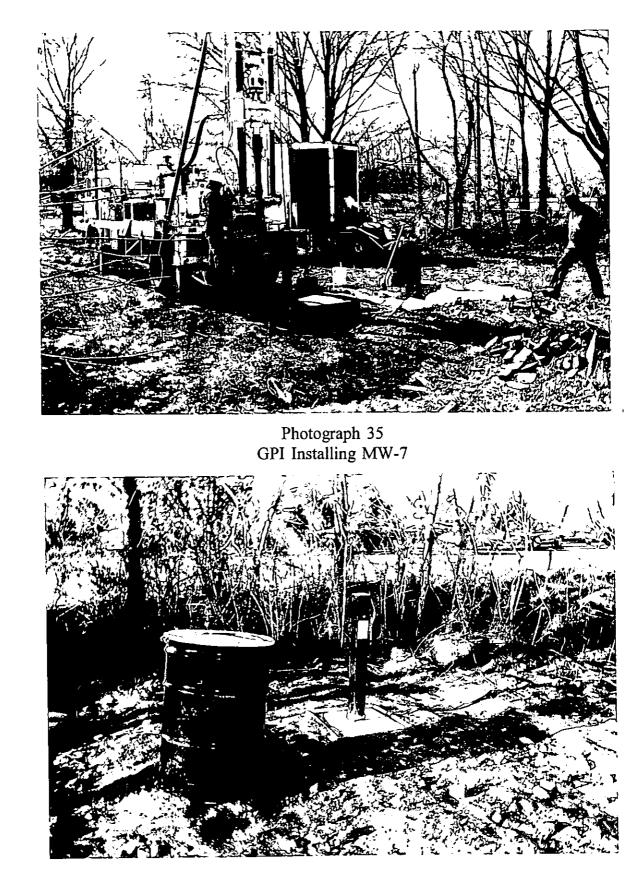


Photograph 33 Covering South End of Landfill With Clean Fill Dirt



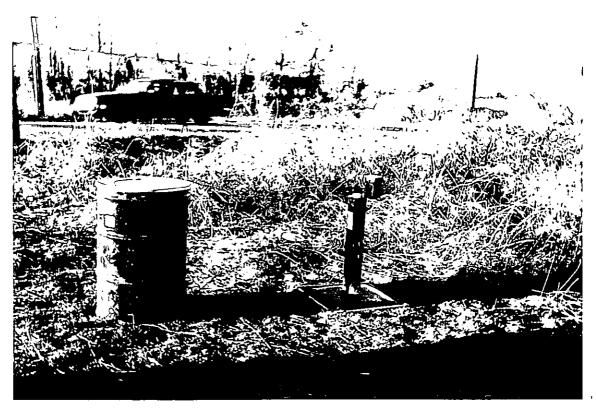
Photograph 34 Debris Excavated From LF024



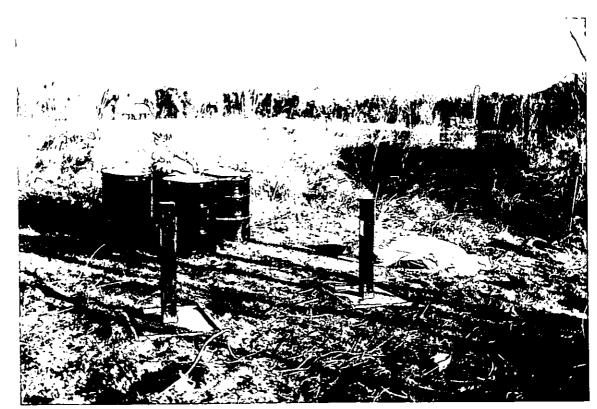


Photograph 36 MW-1; Northwest Corner of Vaughn Landfill





Photograph 37 MW-2; North of CSX Office



Photograph 38 MW-3 and MW-3D in Landfill





Photograph 39 MW-5; Along RR Tracks South Landfill



Photograph 40 MW-7; DP Site



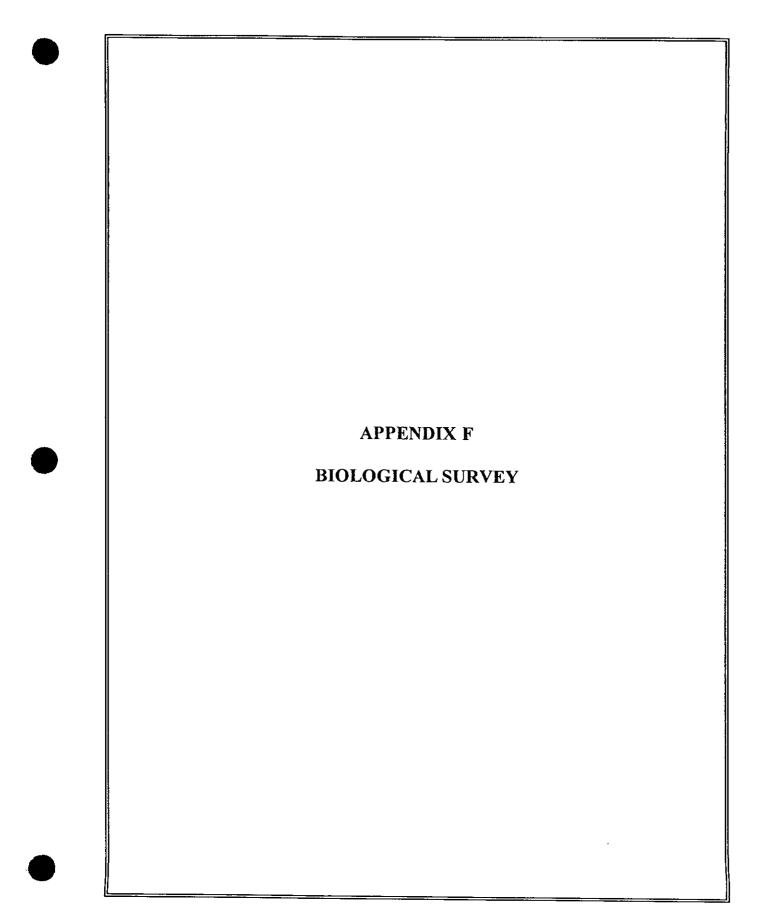
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## **Vegetation Survey and Analysis**

CSX Vaughn Landfill Greenville, South Carolina

prepared for

Applied Engineering & Science, Inc. Perimeter Office Park 2261 Perimeter Park Drive Atlanta, Georgia 30341

by

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Environmental Corp of America 1111 Alderman Drive Suite 200 Alpharetta, GA 30202 ECA Project # 6-576-1



ENVIRONMENTAL CORPORATION OF AMERICA

#### May 31, 1996

Applied Engineering & Science, Inc. Perimeter Office Park 2261 Perimeter Park Drive Atlanta, GA 30341

Attention: Mr. Dave Butler

Subject: Vegetation Survey and Analysis Wetlands Adjacent to CSX Vaughn Landfill Greenville, South Carolina ECA Project Number: 6-576-1

Dear Mr. Butler:

Environmental Corporation of America (ECA) is pleased to provide this report of our **Vegetation Survey and Analysis** at the subject site. The report was provided based on ECA Proposal No. 6-179-1, and your written authorization, dated April 15, 1996, to proceed with the project.

Environmental Corporation of America (ECA) has found that no statistically significant <u>negative</u> correlations exist between organic compounds in soils and the prevalence of plants present in sample plots at the subject site when a 95% confidence level is used. However, statistically significant <u>positive</u> correlations do exist between organic compounds and the prevalence of individuals of some species when a 95% confidence level is used.

Based on the 374 linear models constructed for each wetland habitat type identified at the site, ECA has found no direct evidence to indicate that vascular plant species are negatively impacted by elevated levels of organic compounds in wetland soils at the site. However, ECA has found that some vascular plants are more prevalent in areas where 'elevated levels of organic compounds were detected in wetland soils at the site.

We appreciate this opportunity to provide you with these professional services. If you have any questions regarding this report or the project in general, please call.

Sincerely yours, Environmental Corporation of America

Marvin G. Webster, Jr., REP Project Scientist

Ralph E. Brown, PhD, PE Principal Engineer

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Transmittal Letter Table of Contents

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#### 1.0 Background

The subject site is located near Greenville, South Carolina, and is owned by CSX. A coal gasification plant was once located in the general vicinity of, and upgradient from, the subject site. Coal tar wastes historically drained from the coal gasification facility into a drainage ditch that was once located on the subject site. Ultimately, fluids in the drainage ditch drained into floodplain and wetland areas which are adjacent to the Reedy River. The Reedy River flows along the southwestern boundary of the subject site, as shown in Figure 1. Coal tar deposits are believed to have been deposited in lower lying stream channels and basins within the floodplain and wetland areas. The coal gasification plant is no longer in operation and has been demolished.

Approximately 5 years ago, CSX negotiated to sell the subject site to a local demolition contractor. This buyer reportedly failed to meet the negotiated payment schedule. Therefore, CSX regained possession of the property. However, the would-be buyer continued to use portions of the subject site as a dumping area for construction and demolition debris. This activity resulted in the northern portions of the drainage ditch being covered with construction debris. The southern portion of the drainage ditch has not been filled, and is visible near the southern extent of the filled area (see Photograph A).

Filling of the site with construction debris has raised the water levels in the wetland and floodplain areas along the western portion of the site. These high water levels have inundated much of the former floodplain areas and have created additional jurisdictional wetland areas at the site.

The State of South Carolina has directed CSX to investigate the effect of coal tar contamination on plants in the wetland areas adjacent to the on-site landfill, which is commonly referred to as the Vaughn Landfill. Applied Engineering Science (AES) has drilled borings, collected soil and groundwater samples, and have had these samples analyzed for suspect contaminants, including volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Soil analytical results of VOC and SVOC tests have been provided to ECA by AES. A summary of analytical results is included in Table 1 of Appendix B.

#### 2.0 Purpose

The purpose of this **Biological Survey** was to determine whether statistically significant linear correlations exist at the site between concentrations of volatile and semivolatile compounds in wetland soils and the prevalence of vascular plants in the wetland area adjacent to the Vaughn Landfill.

#### 3.0 Scope of Work

It is difficult to isolate the relationship between a single environmental factor and the influence of that factor on the health of a plant association because so many factors effect the prevalence



and distributions of plant species in association. For instance, in a wetland environment, factors such as water temperature, water velocity, soil chemistry, degree of soil saturation, water inundation depths, sunlight exposure, and a host of other factors may effect plant associations. ECA considered these limiting factors in developing the project scope of work and conducting the field work.

The scope of work to fulfill the project purpose included the following items:

- ECA selected five sample plots for vegetation analysis.
- At each of the sample plots, ECA delineated an area to be studied. All sample plots consisted of a 150 square foot component and a 300 square foot component.
- At each sample plot, ECA compiled a listing of individual vascular plant species found to be present and number of plants of each species found. In cases where it was impossible to count individual plants, the area covered by the particular species was estimated.
- Data collected at each sample plot was entered into a database, along with concentrations of volatile and semivolatile compounds detected at or near the sample plot. The database was used to generate a scattergram plot of the prevalence of individuals of each species at each sample plot versus the concentrations of each volatile and semivolatile compound detected at each sample plot.
- A least squares method was used to construct a liner model of the relationships between the prevalence of plants at each sample plot and the concentrations of detected volatile and semivolatile organic compounds. The strength of the correlations between contaminant concentrations and the prevalence of plants were calculated for each model.
- This report, which documents our work, reports our findings, and offers our conclusions and recommendations was prepared and two copies are provided.

#### 4.0 Field Work

Typically, larger data sets allow for greater confidence in the inferences that are made from statistical analysis because sample set characteristics are more likely to approximate population characteristics. In this case, analytical data was available for only five sample points at the site. For this reason, only five sample plots were delineated and surveyed.

All field work was performed on April 17, 18, and 19, 1996 by Mr. Marvin Webster of ECA. The subject site is shown in Figure 1 of Appendix A.

To evaluate the prevalence of plant species in the wetland area, ECA selected five sample plots equal in size to 450 square feet. Four sample plots were selected based on the locations of soil

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samples previously collected by AES. One sample plot, WW13, was selected to obtain data from a point geographically located between WW10 and WW02.

To the extent possible, locations of sample plots were selected so that similar environmental characteristics (i.e., similar plant community structure, water depth, water temperature, and sunlight exposure) existed at each sample plot.

Two basic wetland habitat types were observed at the site. These were drainage channel habitat areas and floodplain habitat areas. Much of the floodplain habitat area was inundated during our fieldwork. These floodplain areas appear to be perpetually inundated as a result of previous filling of other areas of the site.

As indicated, AES had previously collected soil samples from channel habitat areas on site. Based on this knowledge, ECA selected sample plots so that each plot would be within 5 feet of the collection point of the previous soil sample for that sample plot.

ECA observed that channel habitats at the site were occupied by fewer and smaller plant species. Because it is more difficult to ascertain number and/or aerial extent of small species, small (150 square foot) sample plots were selected and delineated for use in surveying channel habitat areas. However, because channel habitat areas typically did not contain larger species, such as trees, woody shrubs, or vines, an additional 300 square feet of floodplain habitat was delineated at each sample plot for use in determining the prevalence of these larger floodplain habitat species.

Approximate sample plot locations are shown in Figure 2 of Appendix A. Specific conditions at each sample plot are discussed below.

#### 4.1 Sample Plot WW02

Photograph A is a northwesterly view of sample plot WW02. The 150 square foot channel habitat survey area was positioned over the channel habitat area at this sample plot. The stake in the center of the photograph indicates the location of the soil sample previously collected at this sample plot. The deepest measured water depth within the channel was 1.2 feet in depth.

It is evident in Photograph A that little vegetation grows in the center of the channel at this sample plot. It is also evident that a greater number of plants are located in floodplain areas to the east and west of the 150 square foot channel habitat survey area. At this sample plot a 150 square foot floodplain habitat survey area was delineated adjacent to both the eastern and western boundary of the channel habitat area. The three 150 square foot areas give a combined total of 450 square feet.

#### 4.2 Sample Plot WW10

At WW10 (not pictured), a 150 square foot survey area was positioned over the channel habitat area. The deepest measured water depth within the channel at WW10 was 2 feet in depth. As



In cases where it was impossible to count individual specimens (where multiple shoots originated at the same base, or where roots were observed to grow from individual nodes on a single plant) a cover value was estimated for the particular species. The cover value was derived by multiplying the estimated square footage covered by a particular species by the estimated density of coverage. At sample plots where a particular species was present, but where the estimated cover value was determined to be less than 1%, a value of 1% was assigned.

In floodplain habitat areas, the prevalence of only woody trees, shrubs, vines, and the species, *Peltandra sagittaefolia* (because of its height above the water surface) was determined. Also, because no channel habitat area existed at sample plot WW13, the prevalence of only woody trees, shrubs, vines, and the species, *Peltandra sagittaefolia* in the two 150 square foot floodplain survey areas were determined.

#### 5.0 Statistical Analysis

Statistical analysis typically consists of two components, descriptive statistics and inferential statistics. Descriptive statistics are simply the numerical results of mathematical calculations involving data from selected sample sets. Inferential statistics involves making inferences about population characteristics based on the calculated descriptive statistics.

Four volatile compounds and 13 semivolatile compounds have been detected in soils at the subject site. In addition, ECA recorded the presence of twenty-two vascular plant species within the sample plots surveyed. This resulted in the need to construct 374 linear models for each habitat type.

The vegetation data collected and analytical results provided were entered into a database. ECA used the statistical software program SPSS/PC+ to generate a linear model and corresponding regression statistics for each organic compound with each species occurring in the channel habitat area at each plot and with selected species occurring within the floodplain habitat area at each sample plot. The regression statistics calculated were the Pearson Produce Moment Coefficient of Correlation, R, the Coefficient of Determination, R Square, and the significance level.

The Pearson Produce Moment Coefficient of Correlation, R, is a numerical measure of the strength of the linear relationship between two random variables (in this case the organic compound concentration and the prevalence of individuals of each species). R values may range from +1 to -1, with an R value of 1 representing a very strong positive linear correlation (as organic compound concentration increases, the prevalence of individuals of a particular species increases). An R value of -1 represents a very strong negative correlation (as organic compound concentration increases, the prevalence of a particular species decreases). An R value of zero implies no linear relationship.

The Coefficient of Determination, *R Square*, represents the proportion of sample variability that is explained by a linear model. For instance, if the use of a particular model eliminates all



sample variability (all observations fall on the least squares regression line) the *R Square* value will be 1.0. An *R Square* value of 0.20 indicates that the observed variability about the least squares line is reduced by only 20% through the use of a particular model.

The significance level is a numerical measure of the likelihood of rejecting a hypothesis when it is, in fact, true. The null hypothesis in this case is that no significant linear relationship exists between organic compounds in soil at the site and the prevalence of individual plants. A significance level of less that 0.050, which corresponds to a 95% confidence level, means that there is less than a 1 in 20 chance of concluding that a linear relationship exists when, in actuality, no linear relationship exists.

A small significance level is not an indication that the model used is the best model available to describe a particular relationship. Some relationships characterized by a highly significant linear correlations may, in fact, be non-linear. In such a case a non-linear model could be constructed that would be characterized by even more significant correlations.

The 95% confidence level is typically recommended and is the most commonly used confidence level in statistical evaluation of biological survey data. ECA selected the 95% confidence level for this analysis.

As indicated, a very large number of models were constructed to complete the statistical analysis portion of this project. ECA has not tabulated the results of calculations for all models. Rather, the results of all calculations were screened and only those relationships determined to have an R value exceeding 80% were tabulated. The regression statistics for each relationship meeting this criteria are provided in Tables 3 and 4 of Appendix B. Table 3 contains statistics for channel species correlations. Table 4 contains statistics for floodplain species correlations.

#### 6.0 Results

#### 6.1 Channel Habitat Areas

As is shown in Table 3, only a few strong correlations exist between organic compounds in soils and the prevalence of wetland plants identified in channel habitats at the site. Strong correlations (R values near +/- 1.0) do exist between organic compounds in soils at the site and the common grass, *Carex intumescens*.

The correlation of the prevalence of *Carex i*. specimens with organic compounds in soils at the site is negative for SVOCs (Benzo(a)Pyrene, Chrysene, Fluoranthene, and Pyrene) and positive for VOCS (Benzene, Ethylbenzene, Toluene, and Xylenes).

Large R Square values were observed for some of the Carex *i*. correlations. The large R Square values indicate that a large portion of the differences between the prevalence of species predicted by the model and the actual observed prevalence is explained by the linear model used in this analysis.



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Though large R and R Square values exist for te Carex i. correlations, the true test of statistical significance is whether the significance values fall within the designated 95% confidence level. As is evident in Table 2, no significance values smaller than 0.05, a numerical value which corresponds to the 95% confidence level were reported. Therefore, no statistical significance exists at the 95% confidence level for any of the models constructed for Carex i.

Similarly, no statistically significant correlations were observed at the 95% confidence level for *Polygala lutea* or *Salix nigra* with any of the organic compounds. Statistical significance was observed at the 95% confidence level for correlations between *Smilax laurifolia* and some organic compounds present in soils at the site. In fact, the observed significance values for *Smilax l*. fall within the 99% confidence interval.

#### 6.2 Floodplain Habitat Areas

Regarding floodplain species correlations, Table 3 shows that statistically significant positive correlations were observed at the 95% confidence interval for Cornus florida, Ilex opaca, Impatiens capensis, Juncus (unknown), Liquidambar styraciflua, Salix nigra, Scripus atrovirens, and Smilax laurifolia.

#### 7.0 Conclusions

Of the 374 models constructed for channel habitat survey areas, ECA found no direct evidence that vascular plant species inhabiting channel habitat survey areas were negatively impacted by increased levels of organic compounds in wetland soils.

The prevalence of the species, *Smilax 1.* was determined to be greater in channel habitat areas where elevated levels of benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, naphthalene, and phenanthrene were detected. The prevalence of other species identified in channel habitat areas at the site were determined to bear no significant relationship to organic compound levels in soils.

Of the 374 models constructed for floodplain habitat survey areas, the prevalence of the species, Cornus f., Impatiens c., and Liquidambar s., were determined to be greater in floodplain habitat areas where elevated levels of acenapthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, indeno(1,2,3cd)pyrene, phenanthrene, and pyrene were detected.

The prevalence of the species, *llex o.*, *Rubus a.*, *Salix n.*, and *Scripus a.*, *Juncus, Lonicera j.*; and *Smilax l.* were determined to be greater in floodplain habitat areas where elevated naphthalene levels were detected.

Competition for space is often a primary controlling factor in plant associations. Individual plants colonize spaces that become open within plant communities. It is possible that the species which are more prevalent in sample plots where soil concentrations of organic compounds are

higher are the beneficiaries of competitive disadvantages experienced by other species observed to be less prevalent or absent from these areas. However, this survey and analysis provides no direct evidence that such a competition dynamic exists.

#### 8.0 Recommendations

If you would like to learn more about the effects of organic compounds on the wetland plants at the subject site, ECA recommends that additional sample plots be surveyed and that the data obtained from these sample plots be analyzed.

Such additional work would provide a more accurate analysis of the relationships between organic compounds in wetland soils and the prevalence of vascular plants in the wetland areas. The additional work could also result in a finding that a non-linear model would more accurately describe the relationship between organic compounds in wetland soils and the prevalence of vascular plants in the wetland on site.

#### 9.0 Limitations of Study

This Survey and Analysis was conducted in accordance with generally accepted practices of the profession for such studies, conducted during the same time period and in the same geographical area as this study. ECA has exercised the same degree of care and skill generally exercised by environmental professionals under similar circumstances and conditions. No other warranty is expressed or implied.

The observations, opinions and conclusions presented are not scientific certainties, but are solely opinions based upon the information available to us and our professional judgement based upon that information which may be incomplete and/or inaccurate. The services provided herein are in no way intended to be legal advice and should not be relied upon in any way for legal interpretations.

This study and report have been prepared on behalf of and for the exclusive use of Applied Engineering & Science and its Client, CSX, solely for its use and reliance in the environmental assessment of the site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used or relied upon by any other party, in whole or in part, without written notification from Applied Engineering & Science to ECA. In that case, ECA will issue a letter of understanding to the third party for their signature and will provide a copy of this report to the third party as directed by Applied Engineering & Science and its Client, CSX, for a processing fee. Notwithstanding, anything to the contrary herein, any third party reliance is limited to the agreed upon scope of work by and between ECA and Applied Engineering and Science.





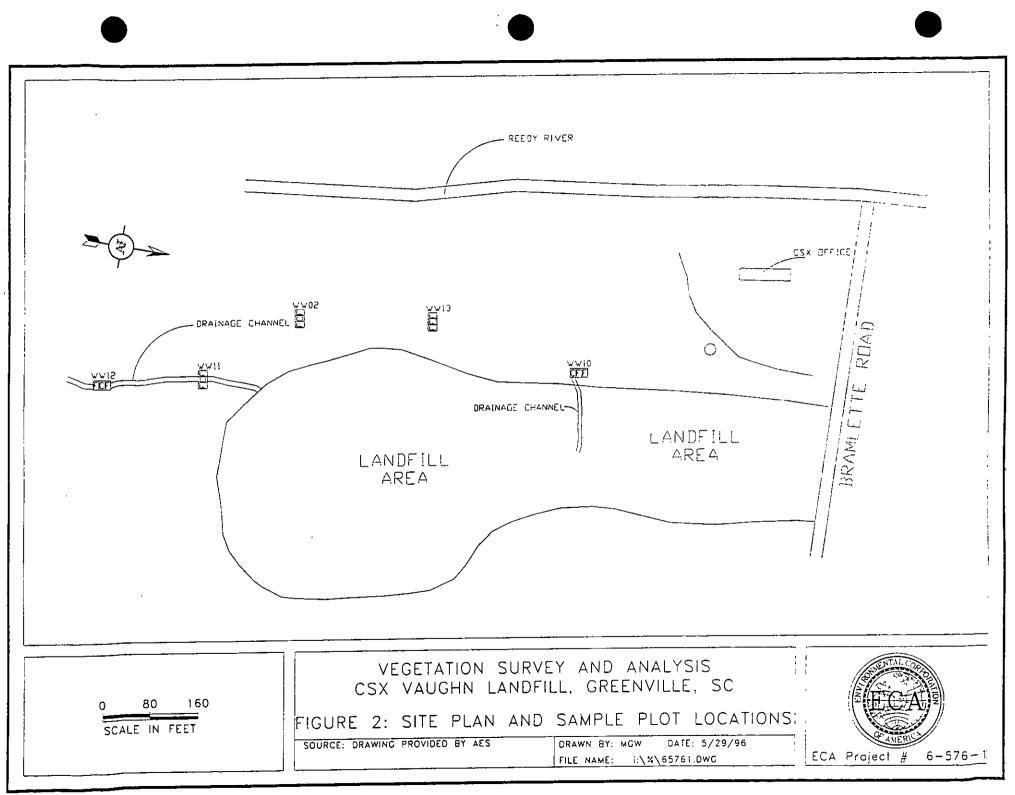
APPENDIX A FIGURES

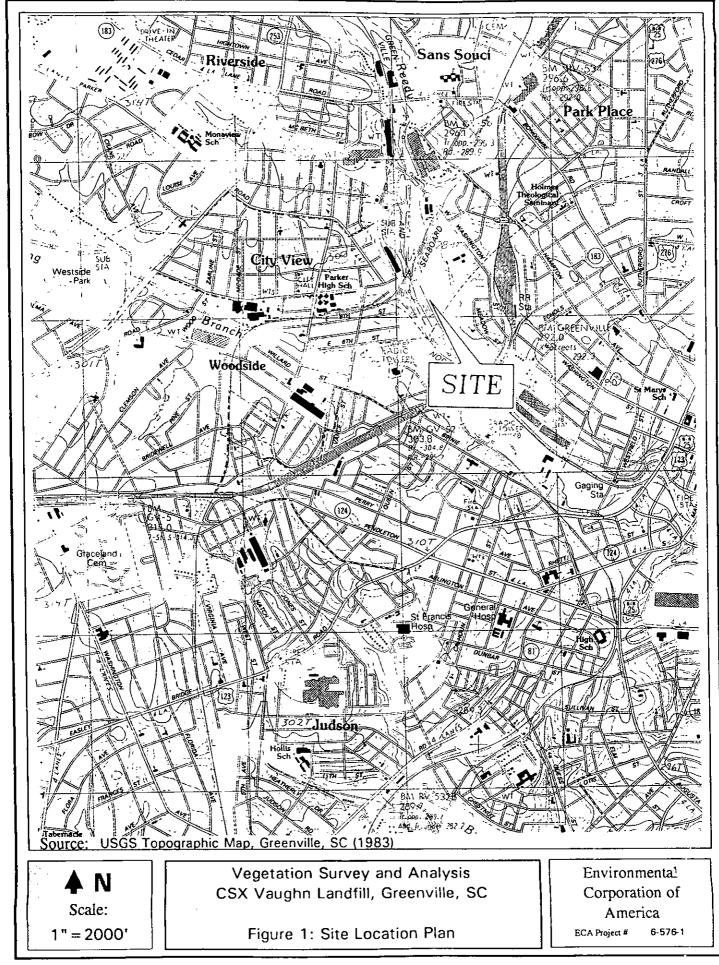
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APPENDIX B

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TABLES

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#### ENVIRONMENTAL CORPORATION OF AMERICA

CSX Vaughn Landfill Greenville, South Carolina

### TABLE 1: VOLATILE AND SEMIVOLATILE ORGANIC COMPOUND CONCENTRATIONS FOR SAMPLE PLOTS

| Sample<br>Plot | Acenapthene<br>ug/kg | Benzene<br>ug/kg | Benzo(a)-<br>anthracene<br>ug/kg | Benzo(b)-<br>fluoranthene<br>ug/kg | Benzo(k)-<br>fluoranthene<br>ug/kg | Benzo(g,h,i)-<br>perylene<br>ug/kg | Benzo(a)-<br>pyrene<br>ug/kg | Chrysene<br>ug/kg | Ethylbenzene<br>ug/kg |
|----------------|----------------------|------------------|----------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------|-------------------|-----------------------|
|                |                      | 12000            | NA NA                            | NA                                 | NA                                 | NA NA                              | NA                           | NA                | 2600                  |
| WW002          | NA NA                | 12000            | 2700                             | 3100                               | 2300                               | 2500                               | 1900                         | 2800              | 0                     |
| WW10           | 0                    |                  | 2700                             |                                    | 0                                  | 0                                  | 12000                        | 11000             | 0                     |
| WW11           | 0                    | 0                | 0                                |                                    | 0                                  |                                    | 0                            | 0                 | 0                     |
| WW12           | 0                    | 0                | 0                                | U                                  | 0                                  | 10000                              |                              | 32000             | 0                     |
| WW13           | 13000                | 0                | 33000                            | 24000                              | 36000                              | 19000                              | 32000                        | 32000             | <u> </u>              |

| Sample      | Fluoranthene<br>ug/kg | Indeno(1,2,3 -cd)-<br>ug/kg | Napthalene<br>ug/kg | Phenanthrene<br>ug/kg | Pyrene<br>ug/kg | Styrene<br>ug/kg | Toluene<br>ug/kg | Xylenes<br>(totals)<br>ug/kg |
|-------------|-----------------------|-----------------------------|---------------------|-----------------------|-----------------|------------------|------------------|------------------------------|
| <u>Plot</u> |                       | <u> </u>                    | NA NA               | NA                    | NA              | 8300             | 18000            | 26000                        |
| WW002       | NA                    | 2100                        | 130                 | 1300                  | 4000            | 0                | 0                | 0                            |
| W10         | 4400                  | 2100                        |                     | 0                     | 17000           | 0                | 0                | 0                            |
| /W11        | 20000                 |                             | 0                   |                       | 0               | 0                | 0                | 0                            |
| /W12        | 0                     | 17000                       |                     | 37000                 | 73000           | 0                | 0                | 0                            |
| W13         | 52000                 | 17000                       | 0                   | 0,000                 | ,               |                  | ·                |                              |

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#### CSX Vaughn Landfill Greenville, South Carolina

## TABLE 2: CHANNEL AND FLOODPLAIN HABITAT SPECIES ABUNDANCES BY SAMPLE PLOT

|        |              |    | Å eor | rubro    | Aster (i | Aster (unknown) |    | la lutea   | Scirpus atrovirens |   |         |            |
|--------|--------------|----|-------|----------|----------|-----------------|----|------------|--------------------|---|---------|------------|
| Sample | Acer negundo |    |       |          |          |                 |    | Floodplain | Channel Floodplain |   | Channel | Floodplain |
| Plot   | Channel      |    |       |          | 0        |                 | 0  | NA         | 0                  | 1 |         |            |
| WW002  | 2            | 5  | 0     | 3        | 0        | 0               | 0  | NA         | 0                  | 1 |         |            |
| WW10   | 0            | 22 | 0     | 2        | 0        | 0               | 48 | NA         | 0                  | 0 |         |            |
| WW11   | 0            | 22 | 0     | <u> </u> | 6        | 0               | 12 | NA         | 0                  | 0 |         |            |
| WW12   | <u> </u>     | 2  | NA    |          | NA       | 0               | NA | NA         | NA                 | 0 |         |            |
| WW13   | NA NA        | Z  |       |          | 11/ 1    |                 |    |            |                    |   |         |            |

|        |                                         |       | Smilov    | latifolia | Stanhyl            | ea trifolia | Plantag  | o rugeli | Cornus florida    |   |
|--------|-----------------------------------------|-------|-----------|-----------|--------------------|-------------|----------|----------|-------------------|---|
| Sample | Carex intumescens<br>Channel Floodplain |       |           |           | Channel Floodplain |             | <u> </u> |          | Channel Floodplai |   |
| Plot   |                                         | NA    | 0.101.110 | 0         | 0                  | 0           | 0        | 0        | 0                 | 0 |
| WW002  | <u> </u>                                | NA    | 4         | 10        | 0                  | 0           | 0        | 4        | 0                 | 0 |
| WW10   |                                         | NA NA |           | 0         | 0                  | 4           | 0        | 4        | 0                 | 0 |
| WW11   | 0                                       |       | 0         | 0         | 0                  | 0           | 0        | 0        | 0                 | 0 |
| WW12   | 1                                       | NA    | <br>NA    |           | NA                 | 0           | NA       | 0        | NA                | 1 |
| WW13   | NA NA                                   | NA    |           |           | 14/1               | <u></u>     |          |          |                   |   |

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## ENVIRONMENTAL CORPORATION OF AMERICA

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## TABLE 2 (Cont.): REGRESSION STATISTICS FOR CHANNEL SPECIES/CONTAMINANT LEVEL COEFFICIENT CORRELATIONS (R) EXCEEDING 80%

|        |                    |            |         |            | hingung  | (upknown)                              | Liquistin | m vulgare          | Liquidamba   | r styraciflua | Lonicer | a japonica |
|--------|--------------------|------------|---------|------------|----------|----------------------------------------|-----------|--------------------|--------------|---------------|---------|------------|
| Sample | Impatiens capensis |            |         | llex opaca |          | Juncus (unknown)<br>Channel Floodplain |           | Channel Floodplain |              | Floodplain    | Channel | Floodplain |
| Plot   | Channel            | Floodplain | Channel | Floodplain | Channel  |                                        |           |                    | Channel<br>0 | 0             | 0       | 0          |
| WW002  | 0                  | 0          | 0       | 0          | 0        | 0                                      | 0         | 2                  | 0            | 0             | 0       | 16         |
| WW10   | 0                  | 0          | 0       | 2          | <u> </u> | 2                                      | 0         | 21                 | 0            | 0             | 0       | 9          |
| WW11   | 0                  | 0          | 0       | 0          | 0        | 0                                      |           | 21                 | 0            | 0             | 0       | 0          |
| WW12   | 3                  | 0          | 0       | 0          | 0        | 0                                      |           | 0                  |              | 1             | NA      | 1          |
| WW13   | NA                 | 1          | NA      | 0          | NA       | 0                                      | NA        | 0                  | <u> </u>     | 1             |         | ·····      |

|        | Plot Channel Floodplain Channel Floodplai |            |         |            |               |            | Rubus allegensis |            | Salix nigra |            | Sambucus canadensis |            |
|--------|-------------------------------------------|------------|---------|------------|---------------|------------|------------------|------------|-------------|------------|---------------------|------------|
| Sample | Peltandra virginica                       |            |         |            | Quercus rubra |            | Channel          | Floodplain | Channel     | Floodplain | Channel             | Floodplain |
| Plot   | Channel                                   | Floodplain | Channel | Floodplain | Channel       | Floouplain |                  |            | 0           | 0          | 0                   | 0          |
| WW002  | 0                                         | 1          | 0       | 0          |               | 0          | 0                | 8          |             | 20         | 0                   | 0          |
| WW10   | 0                                         | 0          | 0       | 0          | 0             | 0          | 0                |            |             | 1          | 0                   | 1          |
| WW11   | 1                                         | 10         | 0       |            | 0             | 1          |                  |            | 6           | 0          | 0                   | 0          |
| WW12   | 3                                         | 2          | 1       | 0          | 0             | 0          | 0                |            | U           |            | NA                  | 0          |
| WW13   | NA                                        | 0          | NA      | 0          | NA            | 0          | NA               |            | NA          | <u> </u>   |                     |            |

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#### CSX Vaughn Landfill Greenville, South Carolina

## TABLE 3: REGRESSION STATISTICS FOR CHANNEL SPECIES/CONTAMINANT LEVEL COEFFICIENT CORRELATIONS (R) EXCEEDING 80%

|                        | Coro  | Carex intumescens Polygala lutea |      | Smilax laurafloia |           |      | Salix nigra |        |      |       |        |      |
|------------------------|-------|----------------------------------|------|-------------------|-----------|------|-------------|--------|------|-------|--------|------|
| Species                | R     | R                                | Sig. | R                 | R         | Sig. | R           | R      | Sig. | R     | R      | Sig. |
|                        | n.    | Square                           | oig. |                   | Square    |      |             | Square |      |       | Square |      |
| Contaminant            |       |                                  | 0.10 | ALA.              | NA        | NA   | NA          | NA     | NA   | □ NA  | NA     | NA   |
| Benzene                | 0.81  | 0.66                             | 0.18 | NA                |           | L    | ·           | NA     | NA   | -0.84 | 0.71   | 0.36 |
| Benzo(a)pyrene         | -0.99 | 0.98                             | 0.09 | 0.92              | 0.86      | 0.25 | NA          |        | 0.00 | NA    | NA     | NA   |
| Benzo(b)fluoranthene   | NA    | NA                               | NA   | NA                | <u>NA</u> | NA   | 1.00        | 1.00   |      |       |        | NA   |
| Benzo(g,h,i)perylene   | NA    | NA                               | NA   | NA                | NA        | NA   | 1.00        | 1.00   | 0.00 | NA    | NA     |      |
|                        | NA    | NA                               | NA   | NA                | NA        | NA   | 1.00        | 1.00   | 0.00 | NA    | NA     | NA   |
| Benzo(k)fluoranthene   |       | 0.94                             | 0.16 | 0.88              | 0.78      | 0.31 | NA          | NA     | NA   | -0.89 | 0.79   | 0.29 |
| Chrysene               | -0.97 |                                  |      | NA                | NA        | NA   | NA          | NA     | NA   | NA    | NA     | NA   |
| Ethylbenzene           | 0.82  | 0.67                             | 0.18 |                   |           | 0.29 | NA          | NA     | NA   | -0.88 | 0.77   | 0.32 |
| Fluoranthene           | -0.98 | 0.96                             | 0.13 | 0.90              | 0.81      |      | 1.00        | 1.00   | 0.00 | NA    | NA     | NA   |
| Indeno(1,2,3-cd)pyrene | NA    | NA                               | NA   | NA                | NA        | NA   |             | L +    | 0.00 | NA    | NA     | NA   |
| Napthalene             | NA    | NA                               | NA   | NA                | <u>NA</u> | NA   | 1.00        | 1.00   |      |       |        | NA   |
| Phenanthrene           | NA    | NA                               | NA   | NA                | NA        | NA   | 1.00        | 1.00   | 0.00 | NA    | NA     |      |
|                        | -0.98 | 0.95                             | 0.14 | 0.89              | 0.79      | 0.30 | NA          | NA     | NA   | -0.88 | 0.78   | 0.31 |
| Pyrene                 |       | 0.67                             | 0.18 | NA                | NA        | NA   | NA          | NA     | NA   | NA_   | NA     | NA   |
| Toluene                | 0.81  | ·                                |      | ₹}                | NA        | NA   | NA          | NA     | NA   | NA    | NA     | NA   |
| Xylenes                | 0.81  | 0.67                             | 0.18 | NA_               |           |      |             |        |      |       |        |      |

NA = Correlation Coefficient, R, does not exceed 80%

### CSX Vaughn Landfill Greenville, South Carolina

# TABLE 4: REGRESSION STATISTICS FOR FLOODPLAIN SPECIES/CONTAMINANT LEVEL COEFFICIENTS, R. EXCEEDING 80%

| Species Cornus florida |      |           |         | llex opaca |           | Impatiens capensis |            |      |         |
|------------------------|------|-----------|---------|------------|-----------|--------------------|------------|------|---------|
| Species                | R    | R         | Sig.    | R          | R         | Sig.               | R          | R    | Sig.    |
| Contaminant            |      |           |         | NA         | NA NA     | NA                 | 1.00       | 1    | < 0.005 |
| Acenapthalene          | 1.00 | 1.00      | < 0.005 |            | NA NA     | NA                 | NA         | NA   | NA      |
| Benzene                | NA   | <u>NA</u> | NA      | NA         | NA        | NA                 | 0.99       | 0.99 | 0.003   |
| Benzo(a)anthracene     | 0.99 | 0.99      | 0.003   | NA         |           | NA                 | 0.93       | 0.93 | 0.067   |
| Benzo(a)pyrene         | 0.93 | 0.93      | 0.067   | NA         | NA        | NA                 | 0.99       | 0.99 | 0.008   |
| Benzo(b)fluoranthene   | 0.99 | 0.99      | 0.008   | NA         | NA        | NA                 | 0.99       | 0.99 | 0.008   |
| Benzo(g,h,i)perylene   | 0.99 | 0.99      | 0.008   | NA         | NA        |                    | 0.99       | 0.99 | 0.002   |
| Benzo(k)fluoranthene   | 0.99 | 0.99      | 0.002   | NA         | <u>NA</u> | NA                 | 0.94       | 0.9  | 0.053   |
| Chrysene               | 0.94 | 0.90      | 0.053   | NA         | NA        | NA                 | 0.94<br>NA | NA   | NA      |
| Ethylbenzene           | NA   | NA        | NA      | NA         | NA        | NA                 | NA NA      | NA   | NA      |
| Fluoranthene           | NA   | NA        | NA      | NA         | NA        | NA                 |            | 0.99 | 0.007   |
| Indeno(1,2,3-cd)pyrene | 0.99 | 0.99      | 0.007   | NA         | NA        | NA                 | 0.99       | NA   | NA      |
| Napthalene             | NA   | NA        | NA      | 1.00       | 1.00      | < 0.005            | NA         |      | 0.006   |
|                        | 0.99 | 0.99      | 0.006   | NA         | NA        | NA                 | 0.99       | 0.99 |         |
| Phenanthrene           | 0.98 | 0.95      | 0.023   | NA         | NA        | NA                 | 0.98       | 0.95 | 0.023   |
| Pyrene                 | <br> | NA        | NA      | NA         | NA        | NA                 | NA         | NA   | NA      |
| Toluene                |      | - NA      | NA      | NA         | NA        | NA                 | NA         | NA   | NA      |
| Xylenes                | NA   | - 114     |         | 11         |           |                    |            |      |         |

NA = Correlation Coeficient, R, does not exceed 80%

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#### CSX Vaughn Landfill Greenville, South Carolina

# TABLE 4(Cont.): REGRESSION STATISTICS FOR FLOODPLAIN SPECIES/CONTAMINANT LEVEL CORRELATION COEFFICIENTS, R. EXCEEDING 80%

|                        | Rubus allegensis |           |           | Salix nigra |             |       | Scripus atrovirens |             |         |
|------------------------|------------------|-----------|-----------|-------------|-------------|-------|--------------------|-------------|---------|
| Species                | R                | R         | Sig.      | R           | R<br>Square | Sig.  | R                  | R<br>Square | Sig.    |
| Contaminant            |                  | Square    |           |             |             |       | NA                 | NA          | NA      |
| Acenapthalene          | NA               | NA        | NA        | NA          | NA          | NA    |                    | NA          | NA      |
| Benzene                | NA               | NA        | NA        | <u>NA</u>   | NA          | NA    | NA                 |             | NA      |
| Benzo(a)anthracene     | NA               | NA        | NA        | <u>NA</u>   | NA          | NA    | NA                 | NA          | NA      |
| Benzo(a)pyrene         | NA               | NA        | NA        | NA          | NA          | NA    | NA                 | NA          |         |
| Benzo(b)fluoranthene   | NA               | NA        | NA        | NA          | <u>NA</u>   | NA    | NA NA              | NA          | NA      |
|                        | NA               | NA        | NA        | NA          | NA          | NA    | NA                 | NA          | NA      |
| Benzo(g,h,i)perylene   | NA NA            | NA        | NA        | NA          | NA          | NA    | NA                 | NA          | NA      |
| Benzo(k)fluoranthene   |                  | NA NA     | NA        | NA          | NA          | NA    | NA                 | NA          | NA      |
| Chrysene               | NA               | NA NA     | NA        | NA          | NA          | NA    | NA                 | NA          | NA      |
| Ethylbenzene           | <u>NA</u>        |           | NA        | NA          | NA          | NA    | NA                 | NA          | NA      |
| Fluoranthene           | NA               | NA        | NA NA     | NA          | NA          | NA    | NA                 | NA          | NA      |
| Indeno(1,2,3-cd)Pyrene | <u>NA</u>        | NA        |           | 0.99        | 0.99        | 0.001 | 1.00               | 1.00        | < 0.005 |
| Napthalene             | 0.87             | 0.76      | 0.130     |             | NA          | NA    | NA                 | NA          | NA      |
| Phenanthrene           | <u>NA</u>        | NA NA     | NA .      |             |             | NA    | NA NA              | NA          | NA      |
| Pyrene                 | NA               | NA        | NA        | NA          |             | ·     | NA                 | NA          | NA      |
| Toluene                | NA               | NA        | NA        | NA          |             |       | NA NA              | NA NA       | NA      |
| Xylenes                | NA               | <u>NA</u> | <u>NA</u> | <u>NA</u>   | <u>NA</u>   | NA    |                    |             |         |

NA = Correlation Coeficient, R, does not exceed 80%

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#### CSX Vaughn Landfill Greenville, South Carolina

## TABLE 4(Cont.): REGRESSION STATISTICS FOR FLOODPLAIN SPECIES/CONTAMINANT LEVEL COBRELATION COEFFICIENTS, R. EXCEEDING 80%

|                        | Juncus (unknown) |        |         | Liquid | lambar styra | aciflua                     | Lonicera Japonica |        |       |
|------------------------|------------------|--------|---------|--------|--------------|-----------------------------|-------------------|--------|-------|
| Species                | R                | R      | Sig.    | R      | R            | Sig.                        | R                 | R      | Sig.  |
| Contaminant            |                  | Square |         |        | Square       |                             |                   | Square | 81.6  |
| Acenapthalene          | NA               | NA     | NA      | 1.00   | 1.00         | < 0.005                     | NA                | NA     | NA    |
| Benzene                | NA               | NA     | NA      | NA     | NA           | NA                          | NA                | NA     | NA    |
| Benzo(a)anthracene     | NA               | NA     | NA      | 0.99   | 0.99         | 0.003                       | NA                | NA     | NA    |
| Benzo(a)pyrene         | NA               | NA     | NA      | 0.93   | 0.93         | 0.067                       | NA                | NA     | NA    |
|                        | NA               | NA     | NA      | 0.99   | 0.99         | 0.008                       | NA                | NA     | NA    |
| Benzo(b)fluoranthene   |                  | NA     | NA      | 0.99   | 0.99         | 0.008                       | NA                | NA     | NA    |
| Benzo(g,h,i)perylene   | NA               |        | NA      | 0.99   | 0.99         | 0.002                       | NA                | NA     | NA    |
| Benzo(k)fluoranthene   | <u>NA</u>        | NA NA  |         | 0.95   | 0.90         | 0.053                       | NA                | NA     | NA    |
| Chrysene               | <u>NA</u>        | NA     | NA      |        |              | NA                          | NA                | NA     | NA    |
| Ethylbenzene           | <u>NA</u>        | NA     | NA      | NA     | NA           |                             | NA                | NA NA  | NA    |
| Fluoranthene           | NA               | NA     | NA      | NA     | NA           | NA                          |                   | NA NA  | NA    |
| Indeno(1,2,3-cd)Pyrene | NA               | NA     | NA      | 0.99   | 0.99         | 0.007                       | NA                |        | ·     |
| Napthalene             | 1.00             | 1.00   | < 0.005 | NA     | NA           | NA                          | 0.84              | 0.71   | 0.156 |
| Phenanthrene           | NA               | NA     | NA -    | 0.99   | 0.99         | 0.006                       | NA                | NA     | NA    |
| Pyrene                 | NA               | NA     | NA      | 0.98   | 0.95         | 0.023                       | NA                | NA     | NA    |
|                        | NA               | NA     | NA      | NA     | NA           | NA                          | NA                | NA     | NA    |
| Toluene                |                  | NA     | NA      | NA     | NA           | NA                          | NA                | NA     | NA    |
| Xylenes                | NA               |        |         |        |              | المحمور والمتشكر والمستوجلة |                   |        |       |

NA = Correlation Coeficient, R, does not exceed 80%

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#### TABLE 4(Cont.): REGRESSION STATISTICS FOR FLOODPLAIN SPECIES/CONTAMINANT LEVEL CORBELATION COEFFICIENTS, R. EXCEEDING 80%

| Species                | Sr        | nilax laurafo | lia       |
|------------------------|-----------|---------------|-----------|
| C) A CALL              | R         | R             | Sig.      |
| Contaminant            |           | Square        |           |
| Acenapthalene          | NA        | NA            | NA        |
| Benzene                | <u>NA</u> | NA            | NA        |
| Benzo(a)anthracene     | NA        | NA            | NA        |
| Benzo(a)pyrene         | NA        | NA            | NA        |
| Benzo(b)fluoranthene   | NA        | NA            | NA        |
| Benzo(g,h,i)perylene   | NA        | NA            | <u>NA</u> |
| Benzo(k)fluoranthene   | NA        | NA            | NA        |
| Chrysene               | NA        | NA            | NA        |
| Ethylbenzene           | NA        | NA            | NA        |
| Fluoranthene           | NA        | NA            | NA        |
| Indeno(1,2,3-cd)Pyrene | NA        | NA            | NA        |
| Napthalene             | 1.00      | 1.00          | < 0.005   |
| Phenanthrene           | NA        | NA            | NA        |
| Pyrene                 | NA        | NA            | NA        |
| Toluene                | NA        | NA            | NA        |
| Xylenes                | NA        | NA            | NA        |

NA = Correlation Coeficient, R, does not exceed 80%

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APPENDIX C

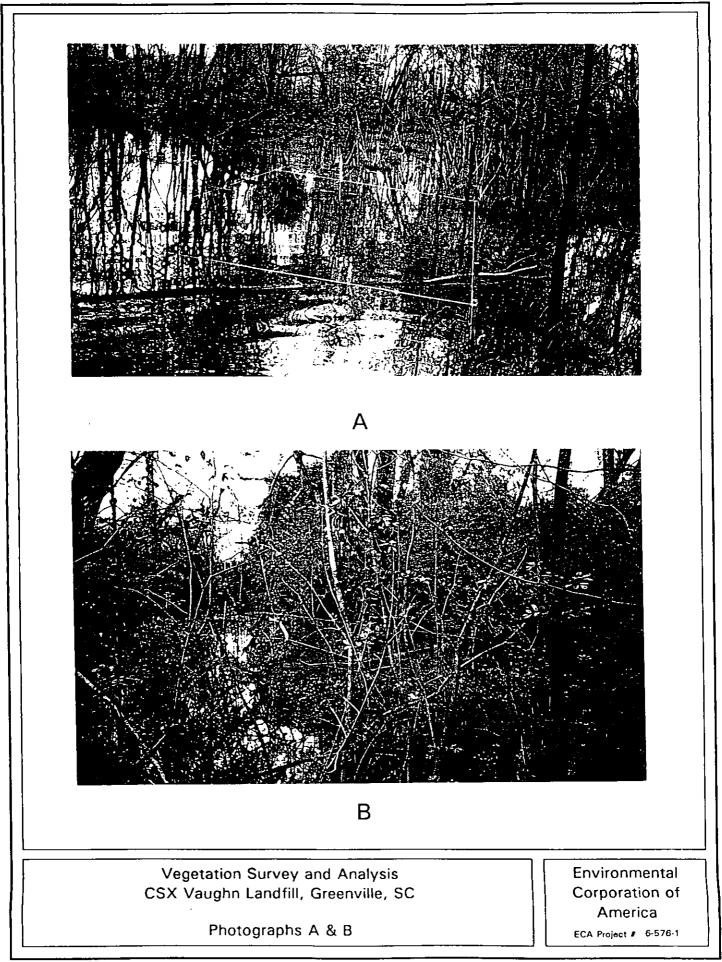
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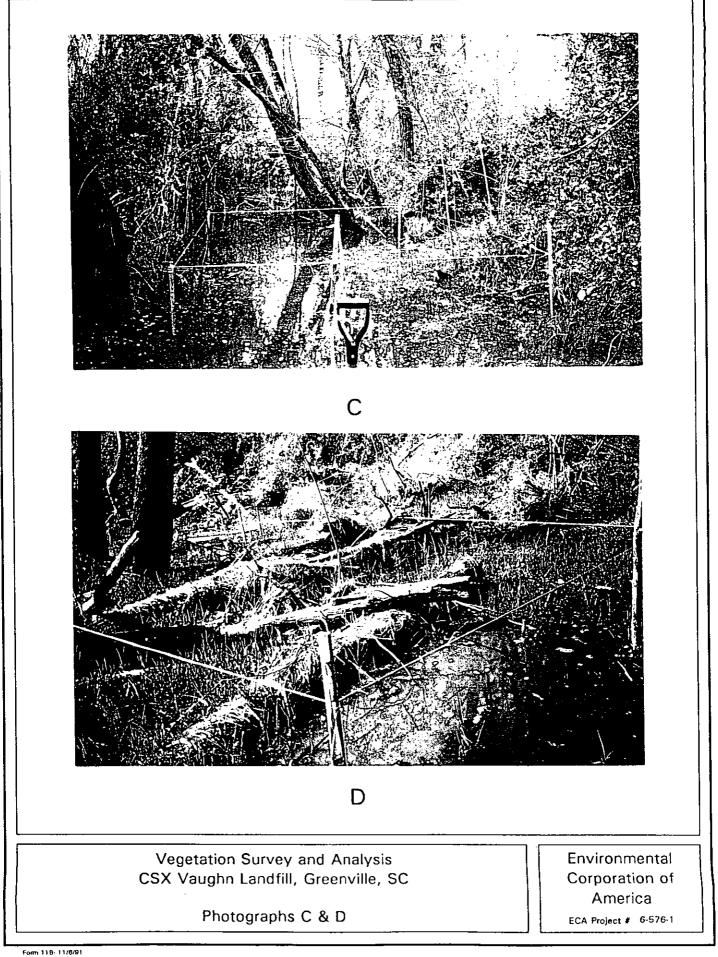
#### PHOTOGRAPHS

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Form 110- 11/6/91



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## **APPENDIX G**

## LABORATORY ANALYTICAL RESULTS



G 1

# DATA SUMMARIES

G-1

[0) Page 15 Date 29-Mar-96

| Project Number:   | CSX TRANSPORTATION<br>4365B<br>CSX GREENVILLE                                                                                                              |                                                                     |                                                                                  |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Client Sample Id: | Parameter:                                                                                                                                                 | Unit:                                                               | Result:                                                                          |
| FD 1<br>NB8       | NAPHTHALENE<br>BENZENE<br>ETHYL BENZENE<br>NAPHTHALENE<br>STYRENE<br>TOLUENE<br>1,2,4-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>M,P-XYLENE<br>O-XYLENE | UG/L<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 9<br>6500<br>11000<br>990000<br>4100<br>17000<br>16000<br>5400<br>22000<br>10000 |





[0) Page 15 Date 10-Apr-96

"Method Report Summary"

| Accession Number: | 603261                 |
|-------------------|------------------------|
| Client:           | CSX TRANSPORTATION     |
| Project Number:   | 4365B                  |
| Project Name:     | CSX GREENVILLE         |
| Project Location: | GREENVILLE, SC         |
| Test:             | BN EXTRACTABLES (8270) |

Client Sample Id: Unit: Parameter: Result: DI-N-BUTYLPHTHALATE UG/L 90 REEDY 1 UG/L UG/L REEDY 2 BUTYLBENZYLPHTHALATE 20 DI-N-BUTYLPHTHALATE 120 WD 1 BUTYLBENZYLPHTHALATE UG/L 29 DI-N-BUTYLPHTHALATE UG/L 100 FD 1 BUTYLBENZYLPHTHALATE UG/L 38 DI-N-BUTYLPHTHALATE UG/L 82 ACENAPHTHENE 600000 NB8 UG/KG ANTHRACENE UG/KG 1400000 BENZO(a) ANTHRACENE UG/KG 1000000 BENZO(a) PYRENE UG/KG 780000 UG/KG UG/KG BENZO (b) FLUORANTHENE 460000 BENZO(g,h,i) PERYLENE 380000 BENZO (k) FLUORANTHENE UG/KG 700000 UG/KG 980000 CHRYSENE DIBENZ(A, J) ACRIDINE UG/KG 800000 FLUORANTHENE UG/KG 2000000 FLUORENE UG/KG 1700000 INDENO(1,2,3-cd) PYRENE 2-METHYLNAPHTHALENE UG/KG UG/KG 340000 3200000 NAPHTHALENE UG/KG 5800000 PHENANTHRENE UG/KG 3800000 PYRENE UG/KG 2600000

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[0) Page 11 Date 12-Apr-96

| Project Number:   | CSX TRANSPORTATION<br>4365B<br>CSXT-GREENVILLE       |                                  |                     |
|-------------------|------------------------------------------------------|----------------------------------|---------------------|
| Client Sample Id: | Parameter:                                           | Unit:                            | Result:             |
| DP 26<br>DP 28    | TRICHLOROETHENE<br>BENZENE<br>NAPHTHALENE<br>STYRENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 94<br>7<br>20<br>34 |
| DP 29<br>DP 9     | NAPHTHALENE<br>NAPHTHALENE                           | UG/KG<br>UG/KG                   | 210<br>69           |

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[0) Page 11 Date 24-Apr-96

| Accession Number: | 603602                 |
|-------------------|------------------------|
| Client:           | CSX TRANSPORTATION     |
| Project Number:   | 4365B                  |
| Project Name:     | CSXT-GREENVILLE        |
| Project Location: | GREENVILLE, SC         |
| Tesť:             | BN EXTRACTABLES (8270) |
| <u> </u>          |                        |

| Client Sample Id: | Parameter:                                                                                                                                                                                                                                 | Unit:                                                                                           | Result:                                                                                                 |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| DP 29             | BENZO (b) FLUORANTHENE<br>BENZO (k) FLUORANTHENE                                                                                                                                                                                           | UG/KG<br>UG/KG                                                                                  | 62000<br>72000                                                                                          |
| DP 9              | CHRYSENE<br>ACENAPHTHYLENE<br>BENZO (a) ANTHRACENE<br>BENZO (a) PYRENE<br>BENZO (b) FLUORANTHENE<br>BENZO (g, h, i) PERYLENE<br>BENZO (k) FLUORANTHENE<br>CHRYSENE<br>FLUORANTHENE<br>INDENO (1, 2, 3-cd) PYRENE<br>PHENANTHRENE<br>PYRENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 53000<br>7900<br>12000<br>20000<br>14000<br>15000<br>14000<br>22000<br>15000<br>15000<br>15000<br>19000 |

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(0) Page 25 Date 10-Apr-96

| Accession Number:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test: | CSX TRANSPORTATION<br>4365B<br>CSX GREENVILLE                                      |                                      |                                                                                          |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------|
| Client Sample Id:                                                                              | Parameter:                                                                         | Unit:                                | Result:                                                                                  |
| MW-1                                                                                           | ACENAPHTHENE                                                                       | UG/L                                 | 700                                                                                      |
|                                                                                                | FLUORENE                                                                           | UG/L                                 | 270                                                                                      |
|                                                                                                | 2-METHYLNAPHTHALENE                                                                | UG/L                                 | 1800                                                                                     |
| MW- 3                                                                                          | NAPHTHALENE                                                                        | UG/L                                 | 4600                                                                                     |
|                                                                                                | PHENANTHRENE                                                                       | UG/L                                 | 240                                                                                      |
|                                                                                                | ACENAPHTHENE                                                                       | UG/L                                 | 120                                                                                      |
|                                                                                                | ACENAPHTHYLENE                                                                     | UG/L                                 | 570                                                                                      |
|                                                                                                | FLUORENE                                                                           | UG/L                                 | 180                                                                                      |
|                                                                                                | 2-METHYLNAPHTHALENE                                                                | UG/L                                 | 820                                                                                      |
|                                                                                                | NAPHTHALENE                                                                        | UG/L                                 | 3000                                                                                     |
|                                                                                                | PHENANTHRENE                                                                       | UG/L                                 | 230                                                                                      |
| MW-3D<br>MW-5<br>MW-6                                                                          | 2-METHYLNAPHTHALENE<br>NAPHTHALENE<br>NAPHTHALENE<br>ACENAPHTHENE                  | UG/L<br>UG/L<br>UG/L<br>UG/L         | 1800<br>8300<br>12<br>150                                                                |
| HM-0                                                                                           | ACENAPHTHYLENE                                                                     | UG/L                                 | 360                                                                                      |
|                                                                                                | ANTHRACENE                                                                         | UG/L                                 | 120                                                                                      |
|                                                                                                | DIBENZOFURAN                                                                       | UG/L                                 | 220                                                                                      |
|                                                                                                | FLUORANTHENE                                                                       | UG/L                                 | 130                                                                                      |
|                                                                                                | FLUORENE<br>2-METHYLNAPHTHALENE<br>NAPHTHALENE<br>PHENANTHRENE<br>PYRENE           | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | 250<br>330<br>1800<br>360                                                                |
| <b>MW</b> - 7                                                                                  | 2-METHYLNAPHTHALENE                                                                | UG/L                                 | 97<br>130                                                                                |
| DP1A                                                                                           | NAPHTHALENE                                                                        | UG/L                                 | 1900                                                                                     |
|                                                                                                | ACENAPHTHENE                                                                       | UG/KG                                | 20000                                                                                    |
|                                                                                                | ANTHRACENE                                                                         | UG/KG                                | 15000                                                                                    |
|                                                                                                | BENZO (a) ANTHRACENE                                                               | UG/KG                                | 14000                                                                                    |
|                                                                                                | BENZO (a) PYRENE                                                                   | UG/KG                                | 12000                                                                                    |
|                                                                                                | BENZO (b) FLUORANTHENE                                                             | UG/KG                                | 9100                                                                                     |
|                                                                                                | BENZO (g, h, i) PERYLENE                                                           | UG/KG                                | 7500                                                                                     |
|                                                                                                | BENZO (k) FLUORANTHENE                                                             | UG/KG                                | 9600                                                                                     |
|                                                                                                | CHRYSENE                                                                           | UG/KG                                | 13000                                                                                    |
|                                                                                                | DIBENZOFURAN                                                                       | UG/KG                                | 15000                                                                                    |
|                                                                                                | FLUORANTHENE                                                                       | UG/KG                                | 32000                                                                                    |
|                                                                                                | FLUORENE                                                                           | UG/KG                                | 17000                                                                                    |
|                                                                                                | INDENO(1,2,3-cd)PYRENE                                                             | UG/KG                                | 6700                                                                                     |
| NB1 <sup>1</sup>                                                                               | 2-METHYLNAPHTHALENE<br>NAPHTHALENE<br>PHENANTHRENE<br>PYRENE<br>PSN20(c) NTURACENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG     | $   \begin{array}{r}     13000 \\     48000 \\     44000 \\     30000 \\   \end{array} $ |
| NRT                                                                                            | BENZO (a) ANTHRACENE                                                               | UG/KG                                | 780                                                                                      |
|                                                                                                | BENZO (a) PYRENE                                                                   | UG/KG                                | 600                                                                                      |

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[0) Page 26 Date 10-Apr-96

| Client: CSX TRANSPORTATION                                                                                                |  |
|---------------------------------------------------------------------------------------------------------------------------|--|
| Project Number: 4365B<br>Project Name: CSX GREENVILLE<br>Project Location: GREENVILLE, SC<br>Test: BN EXTRACTABLES (8270) |  |

| Client Sample Id: | Parameter:                                                                                                                                               | Unit:                                                       | Result:                                                 |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------|
| N 61              | BENZO(b) FLUORANTHENE<br>BENZO(g,h,i) PERYLENE<br>BENZO(k) FLUORANTHENE<br>CHRYSENE<br>FLUORANTHENE<br>INDENO(1,2,3-cd) PYRENE<br>PHENANTHRENE<br>PYRENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 670<br>490<br>630<br>890<br>2000<br>460<br>1800<br>1700 |

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[0) Page 27 Date 31-Mar-96

| Accession Number:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test: | CSX TRANSPORTATION<br>4365B<br>CSX GREENVILLE                                                                                                                        |                                                              |                                                                   |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------|
| Client Sample Id:                                                                              | Parameter:                                                                                                                                                           | Unit:                                                        | Result:                                                           |
| MW - 1<br>MW - 3                                                                               | NAPHTHALENE<br>BENZENE<br>ETHYL BENZENE<br>NAPHTHALENE<br>STYRENE<br>TOLUENE<br>1,2,4-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>M,P-XYLENE<br>O-XYLENE           | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | 3800<br>160<br>100<br>15000<br>50<br>140<br>50<br>17<br>100<br>48 |
| MW-3D                                                                                          | BENZENE<br>ETHYL BENZENE<br>ISOPROPYL BENZENE<br>NAPHTHALENE<br>STYRENE<br>TOLUENE<br>1,2,4 - TRIMETHYLBENZENE<br>1,3,5 - TRIMETHYLBENZENE<br>M,P-XYLENE<br>O-XYLENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | 1100<br>380<br>9<br>9300<br>14<br>160<br>82<br>24<br>210<br>120   |
| MW-5.<br>MW-6                                                                                  | NAPHTHALENE<br>NAPHTHALENE<br>TOLUENE<br>1,2,4-TRIMETHYLBENZENE<br>M,P-XYLENE                                                                                        | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L                         | 9<br>390<br>7<br>8<br>10                                          |
| MW-7<br>DP1A                                                                                   | BENZENE<br>NAPHTHALENE<br>NAPHTHALENE                                                                                                                                | UG/L<br>UG/L<br>UG/KG                                        | 680<br>2400<br>79000                                              |
| DETA                                                                                           | M, P-XYLENE                                                                                                                                                          | UG/KG                                                        | 1300                                                              |

ANALYTICAL TECHNOLOGTĖŠ, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

[0) Page 3 Date 25-Mar-96

|                              | "Method                      | Report | Summary" |  |
|------------------------------|------------------------------|--------|----------|--|
| Accession Number:<br>Client: | 603254<br>CSX TRANSPORTATION |        |          |  |

| Project Number: 4365B<br>Project Name: CSX GREENVILLE<br>Project Location: GREENVILLE, SC<br>Test: Group of Single Wetchem |                 |       |         |  |  |
|----------------------------------------------------------------------------------------------------------------------------|-----------------|-------|---------|--|--|
| Client Sample Id:                                                                                                          | Parameter:      | Unit: | Result: |  |  |
| MW-3                                                                                                                       | SULFATE (375.4) | MG/L  | 640     |  |  |
| MW-3D                                                                                                                      | SULFATE (375.4) | MG/L  | 35      |  |  |
| MW - 6                                                                                                                     | SULFATE (375.4) | MG/L  | 160     |  |  |

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(0) Page 9 Date 12-Apr-96

| Accession Number:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test: | CSX TRANSPORTATION<br>4365B<br>GREENVILLE, SC                                                                                                                                                        |                                                                      |                                                                             |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Client Sample Id:                                                                              | Parameter:                                                                                                                                                                                           | Unit:                                                                | Result:                                                                     |
| LF-024-2                                                                                       | FLUORANTHENE<br>PHENANTHRENE                                                                                                                                                                         | UG/KG<br>UG/KG                                                       | 510<br>470                                                                  |
| WW-10                                                                                          | PYRENE<br>BENZO(a) ANTHRACENE<br>BENZO(a) PYRENE<br>BENZO(b) FLUORANTHENE<br>BENZO(g, h, i) PERYLENE<br>BENZO(k) FLUORANTHENE<br>CHRYSENE<br>FLUORANTHENE<br>INDENO(1,2,3-cd) PYRENE<br>PHENANTHRENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 450<br>2700<br>1900<br>3100<br>2500<br>2300<br>2800<br>4400<br>2100<br>1300 |
| WW-11                                                                                          | PYRENE<br>BENZO (a) PYRENE<br>CHRYSENE<br>FLUORANTHENE<br>PYRENE                                                                                                                                     | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG                            | 4000<br>12000<br>11000<br>20000<br>17000                                    |

[0) Page 11 Date 02-Apr-96

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"Method Report Summary"

| Project Number:   | CSX TRANSPO<br>4365B<br>GREENVILLE, | SC<br>SC                                                                    |                                       |                            |
|-------------------|-------------------------------------|-----------------------------------------------------------------------------|---------------------------------------|----------------------------|
| Client Sample Id: |                                     | Parameter:                                                                  | Unit:                                 | Result:                    |
| WW-10<br>G-TANK 1 |                                     | NAPHTHALENE<br>CHLOROETHANE<br>1,1-DICHLOROETHANE<br>M,P-XYLENE<br>O-XYLENE | UG/KG<br>UG/L<br>UG/L<br>UG/L<br>UG/L | 130<br>22<br>15<br>11<br>7 |

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AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

[0) Page 3 Date 10-May-96

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| Accession Number:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test: | CSX TRANSPORTATION<br>4365B<br>VAUGHN LANDFILL |  |
|------------------------------------------------------------------------------------------------|------------------------------------------------|--|
| Client Sample Id:                                                                              | Parameter:                                     |  |

| Client Sample Id: | Parameter:                                                                                                                                 | Unit:                                     | Result:                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------|
| WW13              | ACENAPHTHYLENE<br>BENZO (a) ANTHRACENE<br>BENZO (a) PYRENE<br>BENZO (b) FLUORANTHENE<br>BENZO (g, h, i) PERYLENE<br>BENZO (k) FLUORANTHENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 13000<br>33000<br>32000<br>24000<br>19000<br>36000 |
|                   | CHRYSENE<br>FLUORANTHENE<br>INDENO(1,2,3-cd)PYRENE<br>PHENANTHRENE<br>PYRENE                                                               | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 32000<br>52000<br>17000<br>37000<br>73000          |











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[0) Page 2 Date 22-Mar-96

| Project Number:   | CSX TRANSPO<br>4365B<br>GREENVILLE, | SC                                                                |                                  |                      |
|-------------------|-------------------------------------|-------------------------------------------------------------------|----------------------------------|----------------------|
| Client Sample Id: |                                     | Parameter:                                                        | Unit:                            | Result:              |
| LF-024-2          |                                     | ARSENIC (6010)<br>BARIUM (6010)<br>CHROMIUM (6010)<br>LEAD (6010) | MG/KG<br>MG/KG<br>MG/KG<br>MG/KG | 6<br>190<br>42<br>21 |

G-2

G 2

ANALYTICAL RESULTS

Analysis Report

Analysis: SW 846 8260 TABLE SIX

603261 CSX TRANSPORTATION Accession: Client: Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC Department: ORGANIC/MS

ANALYTICAL TECHNOLOGIES, INC.

(0) Page 1 Date 29-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603261 CSX TRANSPORTATION Client: 4365B Project Number: Project Name: Project Location: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Test: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A SURFACE WATER Matrix: QC Level: ΙI 001 Sample Date/Time: 14-MAR-96 1440 Lab Id: Client Sample Id: REEDY 1 Received Date: 15-MAR-96 Batch: MAW025 Extraction Date: N/A Blank: C Dry Weight %: N/A Analysis Date: 23-MAR-96 Units: Parameter: Results: Rpt Lmts: Q : BENZENE UG/L ND 5 BROMOBENZENE UG/L 5 ND BROMOCHLOROMETHANE UG/L NÐ 5555 BROMODICHLOROMETHANE UG/L ND BROMOFORM UG/L ND BROMOMETHANE UG/L ND CARBON TETRACHLORIDE UG/L ND CHLOROBENZENE UG/L ND 5 5 5 CHLOROETHANE UG/L ND CHLOROFORM UG/L ND CHLOROMETHANE UG/L 5555 ND 2 - CHLOROTOLUENE UG/L ND 4 - CHLOROTOLUENE UG/L ND CIS 1,2 DICHLOROETHYLENE UG/L ND CHLORODIBROMOMET'HANE UG/L ND มมองอออออ DIBROMOMETHANE ŬĜ/L ND 1,4-DICHLOROBENZENE UG/L ND 1, 3-DICHLOROBENZENE UG/L ND 1,2-DICHLOROBENZENE UG/L ND DICHLORODIFLUOROMETHANE UG/L ND 1,1-DICHLOROETHANE UG/L ND 1, 2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 55555 1,3 DICHLOROPROPANE UG/L ND 2,2-DICHLOROPROPANE UG/L ND 1,2-DICHLOROPROPANE UG/L ND CIS-1, 3-DICHLOROPROPENE UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 1,1 DICHLOROPROPENE UG/L ND ETHYL BENZENE UG/L ND HEXACHLOROBUTADIENE UG/L ND ISOPROPYL BENZENE UG/L ND P-ISOPROPYLTOLUENE UG/L ND METHYLENE CHLORIDE UG/L ND NAPHTHALENE UG/L ND N-BUTYL BENZENE UG/L ND N-PROPYL BENZENE UG/L ND UG/L SEC-BUTYL BENZENE ND STYRENE UG/L ND 5 UG/L TERT-BUTYL BENZENE 5 ND

[0) Page 2 Date 29-Mar-96

"FINAL REPORT FORMAT - SINGLE"

603261 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A SURFACE WATER Matrix: ΙI QC Level: Sample Date/Time: 14-MAR-96 1440 001 Lab Id: 15-MAR-96 REEDY 1 Received Date: Client Sample Id: Rpt Lmts: Units: Results: Q: Parameter: 1, 1, 1, 2-TETRACHLOROETHANE 1, 1, 2, 2-TETRACHLOROETHANE 5 UG/L ND UG/L ND 5 TETRACHLOROETHENE UG/L ND UG/LND TOLUENE UG/L TRANS 1,2 DICHLOROETHYLENE ND 1,1,1-TRICHLOROETHANE UG/L ND 1, 1, 2-TRICHLOROETHANE UG/L ND 1,2,3 TRICHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/L ND UG/L ND TRICHLOROETHENE UG/L ND UG/L TRICHLOROFLUOROMETHANE ND 1,2,3 TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE UG/L ND UG/L ND UG/L ND 1, 3, 5-TRIMETHYLBENZENE VINYL CHLORIDE UG/L ND 5 UG/L ND M, P-XYLENE Ŝ UG/L ND **O-XYLENE** %REC/SURR %REC/SURR 98 74-124 DIBROMOFLUOROMETHANE 61-128 TOLUENE-D8 101 %REC/SURR 100 65-138 BROMOFLUOROBENZENE INITIALS ANALYST LL

Comments:

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 3 Date 29-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603261 CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A SURFACE WATER Matrix: OC Level: ΙI Sample Date/Time: 002 14-MAR-96 1500 Lab Id: Client Sample Id: REEDY 2 Received Date: 15-MAR-96 Extraction Date: N/A Batch: MAW025 Dry Weight %: N/A Analysis Date: 23-MAR-96 Blank: C Results: Rpt Lmts: Units: Q: Parameter:  $\rm UG/L$ ND 5 BENZENE ចេចចាប់មានក្លាយកាលកាលកាលកាលកាលកាលកាលកា UG/L ND BROMOBENZENE UG/L BROMOCHLOROMETHANE ND ND BROMODICHLOROMETHANE UG/L UG/L ND BROMOFORM UG/L ND BROMOMETHANE CARBON TETRACHLORIDE UG/L ND CHLOROBENZENE UG/L ND UG/L ND CHLOROETHANE CHLOROFORM UG/L ND CHLOROMETHANE UG/L ND UG/L ND 2-CHLOROTOLUENE 4 - CHLOROTOLUENE UG/L ND CIS 1,2 DICHLOROETHYLENE UG/L ND CHLORODIBROMOMETHANE UG/L ND ŪG/L ND DIBROMOMETHANE 1,4-DICHLOROBENZENE UG/L ND 1,3-DICHLOROBENZENE UG/L ND UG/L ND 1,2-DICHLOROBENZENE DICHLORODIFLUOROMETHANE UG/L ND 1,1-DICHLOROETHANE UG/L ND 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 1,3 DICHLOROPROPANE UG/L ND 2,2-DICHLOROPROPANE ND UG/L 1,2-DICHLOROPROPANE CIS-1,3-DICHLOROPROPENE UG/L ND UG/L ND UG/L ND TRANS-1, 3-DICHLOROPROPENE 1,1 DICHLOROPROPENE UG/L ND ŪG/L ETHYL BENZENE ND HEXACHLOROBUTADIENE UG/L ND ŪĠ/L UG/L ISOPROPYL BENZENE ND P-ISOPROPYLTOLUENE ND METHYLENE CHLORIDE UG/L ND UG/L ND NAPHTHALENE N-BUTYL BENZENE UG/L ND N-PROPYL BENZENE UG/L ND SEC-BUTYL BENZENE ND UG/L 5 5 UG/L ND STYRENE UG/L TERT-BUTYL BENZENE ND



[0) Page 4 Date 29-Mar-96

"FINAL REPORT FORMAT - SINGLE"

| Project Number:                                                                                                                                                                                                                                                                                                                                              | SW 846 8260 TABI<br>8260 / SW-846, 3                                                | LE SIX                                                       | September 1986                                                                  | and Rev.                                                                                    | 1, July 1          | 1992. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------|-------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                 | 002<br>REEDY 2                                                                      |                                                              | Sample Date<br>Received Da                                                      |                                                                                             | -MAR-96<br>-MAR-96 | 1500  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                   |                                                                                     | Units:                                                       | Results:                                                                        | Rpt Lmts:                                                                                   | Q :                |       |
| 1,1,1,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,4 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,3 TRICHLOROPRO<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE<br>ZENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |                    |       |

Comments:

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 5 Date 29-Mar-96 "FINAL REPORT FORMAT - SINGLE" 603261 Accession: CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A SURFACE WATER Matrix: OC Level: II 003 Sample Date/Time: 14-MAR-96 1520 Lab Id: 15-MAR-96 Received Date: Client Sample Id: WD 1 Extraction Date: N/A Batch: MAW025 23-MAR-96 Dry Weight %: N/A Analysis Date: Blank: C Rpt Lmts: Results: Units: Q: Parameter: ND BENZENE UG/L ບບບບບບບບບບບບບບບບບບບບບບບ BROMOBENZENE UG/L ND BROMOCHLOROMETHANE UG/L ND UG/L ND BROMODICHLOROMETHANE UG/L ND BROMOFORM UG/L BROMOMETHANE ND CARBON TETRACHLORIDE UG/L ND UG/L ND CHLOROBENZENE CHLOROETHANE UG/L ND CHLOROFORM UG/L ND ND UG/L CHLOROMETHANE 2-CHLOROTOLUENE UG/L ND 4 - CHLOROTOLUENE UG/L ND UG/L ND CIS 1,2 DICHLOROETHYLENE UG/L ND CHLORODIBROMOMETHANE ŬG/L ND DIBROMOMETHANE 1,4-DICHLOROBENZENE UG/L ND 1, 3-DICHLOROBENZENE ND UG/L UG/L ND 1,2-DICHLOROBENZENE **DICHLORODIFLUOROMETHANE** UG/L ND 1,1-DICHLOROETHANE UG/L ND 1,2-DICHLOROETHANE UG/L ND UG/L ND 1,1-DICHLOROETHENE 1,3 DICHLOROPROPANE UG/L ND 2,2-DICHLOROPROPANE UG/L ND 1,2-DICHLOROPROPANE UG/L ND CIS-1, 3-DICHLOROPROPENE UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 1,1 DICHLOROPROPENE UG/L ND ŬG/L ND ETHYL BENZENE HEXACHLOROBUTADIENE UG/L ND UG/L ISOPROPYL BENZENE ND UG/L P-ISOPROPYLTOLUENE ND METHYLENE CHLORIDE UG/L ND UG/L ND NAPHTHALENE N-BUTYL BENZENE UG/L NÐ N-PROPYL BENZENE UG/L ND ND SEC-BUTYL BENZENE UG/L UG/L ND 5 STYRENE UG/L 5 ND TERT-BUTYL BENZENE



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#### "FINAL REPORT FORMAT - SINGLE"

| Client: C<br>Project Number: 4<br>Project Name: C<br>Project Location: C<br>Test: S<br>Analysis Method: 8<br>Extraction Method: N<br>Matrix: S                                                                                                                                                                                                                                                         | 503261<br>CSX TRANSPORTATI<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>SW 846 8260 TABL<br>3260 / SW-846, 3<br>N/A<br>SURFACE WATER<br>II | E SIX                                                        | September 1986                                                                  | and Rev                                                                                     | v. 1, J | uly | 1992. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|-----|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                        | 003<br>MD 1                                                                                                                                   |                                                              |                                                                                 | le Date/Time: 14-MAR-96 1520<br>vived Date: 15-MAR-96                                       |         |     |       |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                               | Units:                                                       | Results:                                                                        | Rpt Lmt                                                                                     | S:      | Q:  |       |
| 1,1,1,2-TETRACHLOROE<br>1,1,2,2-TETRACHLOROE<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOROE<br>1,1,1-TRICHLOROETHAN<br>1,2,2-TRICHLOROETHAN<br>1,2,3 TRICHLOROBENZE<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMETHAN<br>1,2,3 TRICHLOROPROPA<br>1,2,4-TRIMETHYLBENZE<br>1,3,5-TRIMETHYLBENZE<br>VINYL CHLORIDE<br>M,P-XYLENE<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | ETHANE<br>ETHYLENE<br>NE<br>ENE<br>ENE<br>ANE<br>ANE<br>ENE<br>ENE<br>ENE                                                                     | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |         |     |       |

Comments:

STYRENE

TERT-BUTYL BENZENE

5

5

[0) Page 7 Date 29-Mar-96 "FINAL REPORT FORMAT - SINGLE" 603261 Accession: CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A SURFACE WATER Matrix: QC Level: II 004 Sample Date/Time: Lab Id: 14-MAR-96 1530 Client Sample Id: FD 1 Received Date: 15-MAR-96 Batch: MAW025 Extraction Date: N/A Blank: C Dry Weight %: N/A Analysis Date: 23-MAR-96 Units: Results: Rpt Lmts: Parameter: 0: UG/L ND BENZENE 5 5 UG/L BROMOBENZENE ND 5 5 BROMOCHLOROMETHANE UG/L ND UG/L BROMODICHLOROMETHANE ND BROMOFORM UG/L ND BROMOMETHANE UG/L ND CARBON TETRACHLORIDE UG/L ND CHLOROBENZENE UG/L ND CHLOROETHANE ND UG/L UG/L CHLOROFORM ND UG/L CHLOROMETHANE ND 2 - CHLOROTOLUENE UG/L NĐ 4 - CHLOROTOLUENE UG/L ND CIS 1,2 DICHLOROETHYLENE UG/L ND CHLORODIBROMOMETHANE UG/L ND UG/L DIBROMOMETHANE ND UG/L 1,4-DICHLOROBENZENE ND 1,3-DICHLOROBENZENE UG/L ND 1,2-DICHLOROBENZENE UG/L ND **DICHLORODIFLUOROMETHANE** UG/L ND 1,1-DICHLOROETHANE UG/L ND 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L NÐ 1,3 DICHLOROPROPANE UG/L ND 2,2-DICHLOROPROPANE UG/L ND 1,2-DICHLOROPROPANE UG/L ND CIS-1, 3-DICHLOROPROPENE UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 1,1 DICHLOROPROPENE UG/L ND ETHYL BENZENE UG/L ND HEXACHLOROBUTADIENE UG/L ND ND ISOPROPYL BENZENE UG/L UG/L ND **P-ISOPROPYLTOLUENE** UG/L METHYLENE CHLORIDE ND. œ NAPHTHALENE UG/L 9 ND UG/L N-BUTYL BENZENE N-PROPYL BENZENE UG/L ND SEC-BUTYL BENZENE UG/L ND

UG/L

UG/L

ND

ND

[0] Page 8 Date 29-Mar-96

"FINAL REPORT FORMAT - SINGLE"

Accession: 603261 Client: Project Number: CSX TRANSPORTATION 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A SURFACE WATER Matrix: QC Level: ΙI Lab Id: 004 Sample Date/Time: 14-MAR-96 1530 Client Sample Id: FD 1 Received Date: 15-MAR-96 Parameter: Units: Results: Rpt Lmts: Q : 1, 1, 1, 2-TETRACHLOROETHANE 1, 1, 2, 2-TETRACHLOROETHANE UG/L ND 5 UG/L ND 5 TETRACHLOROETHENE UG/L ND TOLUENE UG/L ND TRANS 1,2 DICHLOROETHYLENE UG/L ND 1, 1, 1-TRICHLOROETHANE UG/L ND 1, 1, 2-TRICHLOROETHANE UG/L ND 1,2,3 TRICHLOROBENZENE UG/L ND 1,2,4 TRICHLOROBENZENE UG/L ND TRICHLOROETHENE UG/L ND TRICHLOROFLUOROMETHANE UG/L ND 1,2,3 TRICHLOROPROPANE UG/L ND 1,2,4-TRIMETHYLBENZENE UG/L ND 1,3,5-TRIMETHYLBENZENE UG/L ND VINYL CHLORIDE UG/L ND M, P-XYLENE UG/L ND 5 **O-XYLENE** UG/L ND 5 DIBROMOFLUOROMETHANE %RÉC/SURR 99 74-124 TOLUENE-D8 %REC/SURR 102 61-128 BROMOFLUOROBENZENE %REC/SURR 104 65-138 ANALYST INITIALS LL

Comments:

[0) Page 9 Date 29-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603261 CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Tesť: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: OC Level: II 005 Sample Date/Time: 14-MAR-96 0900 Lab Id: Client Sample Id: NB8 Received Date: 15-MAR-96 Batch: MAS026 Extraction Date: 25-MAR-96 Analysis Date: Blank: A Dry Weight %: 50 25-MAR-96 Units: Results: Parameter: Rpt Lmts: Q: UG/KG UG/KG 2000 BENZENE 6500 BROMOBENZENE ND 2000 UG/KG BROMOCHLOROMETHANE ND 2000 UG/KG NÐ BROMODICHLOROMETHANE 2000 UG/KG UG/KG BROMOFORM ND 2000 BROMOMETHANE ND 2000 CARBON TETRACHLORIDE UG/KG ND 2000 CHLOROBENZENE UG/KG ND 2000 UG/KG CHLOROETHANE ND 2000 UG/KG CHLOROFORM ND 2000 CHLOROMETHANE UG/KG ND 2000 2 - CHLOROTOLUENE UG/KG 2000 ND UG/KG 4 - CHLOROTOLUENE ND 2000 CIS 1,2 DICHLOROETHYLENE UG/KG ND 2000 UG/KG UG/KG CHLORODIBROMOMETHANE ND 2000 DIBROMOMETHANE ND 2000 1,4-DICHLOROBENZENE UG/KG ND 2000 1,3-DICHLOROBENZENE UG/KG ND 2000 1,2-DICHLOROBENZENE UG/KG ND 2000 UG/KG DICHLORODIFLUOROMETHANE 2000 ND 1,1-DICHLOROETHANE UG/KG ND 2000 UG/KG UG/KG 1,2-DICHLOROETHANE ND 2000 1,1-DICHLOROETHENE ND 2000 1,3 DICHLOROPROPANE UG/KG ŇD 2000 2,2-DICHLOROPROPANE UG/KG ND 2000 1,2-DICHLOROPROPANE UG/KG ND 2000 UG/KG CIS-1,3-DICHLOROPROPENE ND 2000 TRANS-1, 3-DICHLOROPROPENE UG/KG ND 2000 1,1 DICHLOROPROPENE UG/KG ND 2000 UG/KG ETHYL BENZENE 11000 2 2000 HEXACHLOROBUTADIENE UG/KG ND 2000 UG/KG UG/KG ISOPROPYL BENZENE ND 2000 P-ISOPROPYLTOLUENE ND 2000 METHYLENE CHLORIDE UG/KG ND 2000 990000 🦄 NAPHTHALENE UG/KG 25000 N-BUTYL BENZENE UG/KG ND 2000 N-PROPYL BENZENE UG/KG ND 2000 SEC-BUTYL BENZENE UG/KG ND 2000 UG/KG 4100 2 2000

UG/KG

ND

2000

STYRENE TERT-BUTYL BENZENE

(0) Page 10 Date 29-Mar-96

"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                 | SW 846 8260 TAB<br>8260 / SW-846,                                                   | LE SIX<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                              |                                                             |                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 005<br>NB8                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sample Date<br>Received Da                                                                                                                                                   |                                                             | 4AR-96 0900<br>4AR-96 |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Results:                                                                                                                                                                     | Rpt Lmts:                                                   | Q :                   |
| 1,1,1,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE.<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>1,2,4 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,3 TRICHLOROPRO<br>1,2,4 TRICHLOROPRO<br>1,2,4 TRICHLOROPRO<br>1,2,3 TRICHLOROPRO<br>1,2,4 TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHA<br>TOLUENE - D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE<br>ZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/S<br>S<br>UG/S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S | ND<br>ND<br>17000<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>16000<br>5400<br>ND<br>22000<br>10000<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>200 |                       |

Comments:

(0) Page 11 Date 29-Mar-96 "FINAL REPORT FORMAT - SINGLE" 603261 CSX TRANSPORTATION Accession: Client: 4365B Project Number: CSX GREENVILLE Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A SOIL Matrix: QC Level: II 006 Sample Date/Time: 14-MAR-96 0935 Lab Id: DP 16 Client Sample Id: Received Date: 15-MAR-96 Batch: MAS025 Extraction Date: N/A Blank: B Dry Weight %: 81 Analysis Date: 23-MAR-96 Parameter: Units: Results: Rpt Lmts: 0: BENZENE UG/KG ND 6 UG/KG UG/KG 6 BROMOBENZENE ND BROMOCHLOROMETHANE 6 ND BROMODICHLOROMETHANE UG/KG ND 6 6 BROMOFORM UG/KG ND BROMOMETHANE UG/KG ND 6 CARBON TETRACHLORIDE UG/KG 6 6 ND CHLOROBENZENE UG/KG ND CHLOROETHANE UG/KG ND 6 UG/KG CHLOROFORM ND 6 UG/KG 6 CHLOROMETHANE ND 2 - CHLOROTOLUENE UG/KG ND 6 UG/KG 4 - CHLOROTOLUENE ND 6 CIS 1,2 DICHLOROETHYLENE UG/KG ND 6 UG/KG 6 CHLORODIBROMOMETHANE ND DIBROMOMETHANE UG/KG ND 6 1,4-DICHLOROBENZENE UG/KG ND 6 1,3-DICHLOROBENZENE UG/KG ND 6 1,2-DICHLOROBENZENE UG/KG UG/KG ND 6 DICHLORODIFLUOROMETHANE 6 ND 1,1-DICHLOROETHANE 6 6 UG/KG ND 1,2-DICHLOROETHANE UG/KG ND UG/KG UG/KG 6 1,1-DICHLOROETHENE ND 1,3 DICHLOROPROPANE ND 6 2,2-DICHLOROPROPANE UG/KG ND 1,2-DICHLOROPROPANE UG/KG UG/KG ND 6 CIS-1, 3-DICHLOROPROPENE 6 ND TRANS-1, 3-DICHLOROPROPENE UG/KG 6 ND 1.1 DICHLOROPROPENE UG/KG ND 6 6 ETHYL BENZENE UG/KG ND 6 6 UG/KG HEXACHLOROBUTADIENE ND ISOPROPYL BENZENE UG/KG ND P-ISOPROPYLTOLUENE UG/KG 6 ND METHYLENE CHLORIDE UG/KG 6 ND NAPHTHALENE UG/KG ND 6 6 N-BUTYL BENZENE UG/KG ND UG/KG 6 N-PROPYL BENZENE ND SEC-BUTYL BENZENE UG/KG 6 ND 6 STYRENE UG/KG ND TERT-BUTYL BENZENE UG/KG ND 6

[0) Page 12 Date 29-Mar-96

"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                        | SW 846 8260 TABL<br>8260 / SW-846, 3                                                | E SIX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | eptember 1986                                                                   | and Rev. 1,                                                                                 | , July               | 1992. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------|-------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                     | 006<br>DP 16                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Date<br>Received Da                                                      |                                                                                             | MAR - 96<br>MAR - 96 | 0935  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Results:                                                                        | Rpt Lmts:                                                                                   | Q :                  |       |
| 1,1,1,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>1,2,4 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,3 TRICHLOROPRO<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE<br>ZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>VG/SURR<br>%REC/SURR<br>%REC/SURR<br>%REC/SURR | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 |                      |       |

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ANALYTICAL TECHNOLOGIES, INC.

[0) Page 13 Date 29-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603261 CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A SOIL Matrix: OC Level: II Sample Date/Time: 14-MAR-96 1000 007 Lab Id: Received Date: 15-MAR-96 Client Sample Id: DP 21 Extraction Date: N/A Batch: MAS025 23-MAR-96 Blank: B Dry Weight %: 72 Analysis Date: Rpt Lmts: Units: Results: Q : Parameter: 7 UG/KG ND BENZENE 7 ND UG/KG BROMOBENZENE 7 UG/KG ND BROMOCHLOROMETHANE 7 UG/KG ND BROMODICHLOROMETHANE 7 ND UG/KG BROMOFORM 7 UG/KG ND BROMOMETHANE 7 7 ND CARBON TETRACHLORIDE UG/KG CHLOROBENZENE UG/KG ND UG/KG ND 777 CHLOROETHANE CHLOROFORM UG/KG ND UG/KG UG/KG ND CHLOROMETHANE ND 7 2-CHLOROTOLUENE . 7 7 UG/KG ND 4 - CHLOROTOLUENE CIS 1,2 DICHLOROETHYLENE UG/KG ND 7 7 UG/KG ND CHLORODIBROMOMETHANE UG/KG DIBROMOMETHANE ND 7 7 UG/KG ND 1,4-DICHLOROBENZENE 1,3-DICHLOROBENZENE UG/KG ND UG/KG ND 7 7 7 1,2-DICHLOROBENZENE DICHLORODIFLUOROMETHANE UG/KG ND UG/KG UG/KG 1,1-DICHLOROETHANE ND 7 ND 1,2-DICHLOROETHANE 7 1,1-DICHLOROETHENE UG/KG ND ND 7 1,3 DICHLOROPROPANE UG/KG 2,2-DICHLOROPROPANE 7 UG/KG ND 7 UG/KG ND 1,2-DICHLOROPROPANE 777 CIS-1, 3-DICHLOROPROPENE UG/KG ND TRANS-1, 3-DICHLOROPROPENE UG/KG ND UG/KG 7 ND 1,1 DICHLOROPROPENE 7 ETHYL BENZENE UG/KG ND 7 HEXACHLOROBUTADIENE UG/KG ND 7 ND ISOPROPYL BENZENE UG/KG UG/KG ND 7 P-ISOPROPYLTOLUENE UG/KG ND 7 7 7 METHYLENE CHLORIDE NAPHTHALENE UG/KG ND N-BUTYL BENZENE UG/KG ND ; 7 7 UG/KG ND N-PROPYL BENZENE UG/KG ND SEC-BUTYL BENZENE UG/KG ND 7 STYRENE 7 UG/KG ND TERT-BUTYL BENZENE

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[0) Page 14 Date 29-Mar-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                              | 603261<br>CSX TRANSPORTAT:<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>SW 846 8260 TAB<br>8260 / SW-846,<br>N/A<br>SOIL<br>II |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | September 198                                                                   | 6 and Rev. 1                                                                                | , July           | 1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                          | 007<br>DP 21                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Sample Dat<br>Received D                                                        |                                                                                             | MAR-96<br>MAR-96 | 1000  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Results:                                                                        | Rpt Lmts:                                                                                   | Q:               |       |
| 1,1,1,2,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,4 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,4 TRICHLOROPRO<br>1,2,4 -TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHY<br>TOLUENE - D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>IANE<br>IZENE<br>IZENE<br>IZENE<br>IZENE<br>IZENE                                                  | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG<br>VG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7 |                  |       |

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Analysis Report

Analysis: BN EXTRACTABLES (8270)

Accession:603261Client:CSX TRANSPORTATIONProject Number:4365BProject Name:CSX GREENVILLEProject Location:GREENVILLE, SCDepartment:ORGANIC/MS

[0) Page 1 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE"

#### 603261 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Analysis Method: Extraction Method: SURFACE WATER Matrix: QC Level: II Sample Date/Time: 001 14-MAR-96 1440 Lab Id: REEDY 1 Client Sample Id: Received Date: 15-MAR-96 Batch: ALW024 Extraction Date: 20-MAR-96 Blank: A Dry Weight %: N/A Analysis Date: 03-APR-96 Parameter: Units: Results: Rpt Lmts: Q: ACENAPHTHENE UG/L ND 10 ACENAPHTHYLENE UG/L ND 1.0ACETOPHENONE UG/L ND 10 UG/L 4 - AMINOBIPHENYL ND 10ANILINE UG/L ND 10UG/L ANTHRACENE ND 1.0BENZIDINE UG/L ND 10 BENZO(a) ANTHRACENE UG/L ND 10 BENZO(a) PYRENE UG/L ND 10 BENZO (b) FLUORANTHENE UG/L ND 10BENZO(g,h,i) PERYLENE UG/L ND 10 BENZO (k) FLUORANTHENE UG/L ND 10 UG/L BENZYL ALCOHOL ND 10 BIS (2 - CHLOROETHYL) ETHER UG/L ND 10 BIS (2 - CHLOROETHOXY) METHANE UG/L ND 10 BIS (2-CHLOROISOPROPYL) ETHER UG/L ND 10BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 104 - BROMOPHENYL - PHENYLETHER UG/L ND 10 BUTYLBENZYLPHTHALATE UG/L ND 10 4 - CHLOROANILINE UG/L ND 10 1 - CHLORONAPHTHALENE UG/L ND 10 2-CHLORONAPHTHALENE UG/L ND 10UG/L 4 - CHLOROPHENYL - PHENYLETHER ND 10CHRYSENE UG/L ND 10 DIBENZO(A, H) ANTHRACENE UG/L 10 ND DIBENZ(A, J) ACRIDINE UG/L ND 10 DIBENZOFURAN UG/L ND 10 1,2-DICHLOROBENZENE UG/L ND 10 1, 3-DICHLOROBENZENE UG/L ND 10 1,4-DICHLOROBENZENE UG/L ND 10 3,3'-DICHLOROBENZIDINE UG/L NÐ 50 DIETHYLPHTHALATE UG/L NÐ 10 P-DIMETHYLAMINOAZOBENZENE UG/L ND 10 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/L ND 10 A-, A-DIMETHYLPHENETHYLAMINE UG/L ND 10 DIMETHYLPHTHALATE UG/L ND 10 DI-N-BUTYLPHTHALATE UG/L 90 10 • 13.) 2,4-DINITROTOLUENE UG/L ND 10 2,6-DINITROTOLUENE UG/L ND 10 DI-N-OCTYLPHTHALATE UG/L ND 10

ANALYTICAL TECHNOLOGIES, INC.

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Date 10-Apr-96

## "FINAL REPORT FORMAT - SINGLE"

603261 Accession: Client: CSX TRANSPORTATION Project Number: 4365B CSX GREENVILLE Project Name: Project Location: GREENVILLE, SC BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Analysis Method: Extraction Method: SURFACE WATER Matrix: QC Level: ΤĨ 14-MAR-96 1440 Sample Date/Time: 001 Lab Id: Client Sample Id: REEDY 1 Received Date: 15-MAR-96 Units: Results: Rpt Lmts: Q: Parameter: 10UG/L ND DIPHENYLAMINE 1,2-DIPHENYLHYDRAZINE UG/L ND 10 UG/L ND 10FLUORANTHENE UG/L ND 10 FLUORENE ND 10 HEXACHLOROBENZENE UG/L HEXACHLOROBUTADIENE UG/L ND 10 UG/L ND 10 HEXACHLOROCYCLOPENTADIENE HEXACHLOROETHANE UG/L NÐ 10 INDENO(1,2,3-cd) PYRENE ND 10 UG/L ND 1.0 ISOPHORONE UG/L 3-METHYLCHOLANTHRENE UG/L NĎ 10 UG/L ND 10 2-METHYLNAPHTHALENE NAPHTHALENE UG/L ND 10 UG/L 1-NAPHTHYLAMINE ND 10 ND 1.0 2-NAPHTHYLAMINE UG/L UG/L ND 10 2-NITROANILINE UG/L 10 ND 3-NITROANILINE UG/L ND 10 4 - NITROANILINE UG/L NITROBENZENE ND 10 N-NITROSODIMETHYLAMINE UG/L ND 10 N-NITROSODI-N-BUTYLAMINE UG/L ND 10 UG/L ND 10 N-NITROSODIPHENYLAMINE N-NITROSO-DI-N-PROPYLAMINE UG/L NÐ 10 UG/L ND 10 N-NITROSOPIPERIDINE PENTACHLOROBENZENE UG/L ND 10 PENTACHLORONITROBENZENE (PCNB) UG/L ND 10 UG/L ND 10 PHENACETIN PHENANTHRENE UG/L ND 10 10 UG/L ND 2-PICOLINE PRONAMIDE UG/L ND 10 UG/L ND 10 PYRENE 1,2,4,5-TETRACHLOROBENZENE UG/L ND 10 1,2,4 TRICHLOROBENZENE ND 10 UG/L %REC/SURR 43-116 63 2-FLUOROBIPHENYL NITROBENZENE-D5 %REC/SURR 53 35-114 %REC/SURR 74 33-124 TERPHENYL-D14 INITIALS ANALYST PL



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# "FINAL REPORT FORMAT - SINGLE"

603261 Accession: CSX TRANSPORTATION Client: Project Number: Project Name: 4365B CSX GREENVILLE Project Location: GREENVILLE, SC BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. SURFACE WATER Matrix: QC Level: IΪ Sample Date/Time: 14-MAR-96 1500 002 Lab Id: REEDY 2 Received Date: 15-MAR-96 Client Sample Id: Batch: ALW024 Extraction Date: 20-MAR-96 Blank: A Dry Weight %: N/A Analysis Date: 03-APR-96 Units: Results: Rpt Lmts: Parameter: 0: UG/L ND 10 ACENAPHTHENE ACENAPHTHYLENE UG/L ND 10 UG/L UG/L ACETOPHENONE ND 10 4-AMINOBIPHENYL ND 10 UG/L ND ANILINE 10 UG/L ND 1.0ANTHRACENE BENZIDINE UG/L ND 10 UG/L BENZO (a) ANTHRACENE ND 10 BENZO(a) PYRENE UG/L ND 10 UG/L ND BENZO (b) FLUORANTHENE 10 UG/L BENZO(g,h,i) PERYLENE BENZO(k) FLUORANTHENE ND 10 UG/L ND 10 UG/L UG/L BENZYL ALCOHOL ND 10 BIS (2-CHLOROETHYL) ETHER ND 10 UG/L BIS (2-CHLOROETHOXY) METHANE ND 10 BIS (2-CHLOROISOPROPYL) ETHER ND UG/L 1.0BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 10 4 - BROMOPHENYL - PHENYLETHER UG/L ND 10 1 BUTYLBENZYLPHTHALATE UG/L 20 10 UG/L UG/L 4 - CHLOROANILINE ND 10 1-CHLORONAPHTHALENE ND 1.0 2-CHLORONAPHTHALENE UG/L ND 10 4 - CHLOROPHENYL - PHENYLETHER ND 10 UG/L CHRYSENE UG/L ND 10 DIBENZO (A, H) ANTHRACENE UG/L ND 10DIBENZ(A, J) ACRIDINE UG/L 1.0 ND UG/L ND 10 DIBENZOFURAN UG/L 1,2-DICHLOROBENZENE ND 1.0 1,3-DICHLOROBENZENE UG/L ND 10 1,4-DICHLOROBENZENE UG/L ND 10 UG/L 3,3'-DICHLOROBENZIDINE ND 50 DIETHYLPHTHALATE UG/L ND 1.0UG/L P-DIMETHYLAMINOAZOBENZENE ND 1.07,12-DIMETHYLBENZO(a) ANTHRACENE UG/L ND 10 UG/L A-, A-DIMETHYLPHENETHYLAMINE ND 10 UG/L DIMETHYLPHTHALATE ND 10 UG/L UG/L DI-N-BUTYLPHTHALATE 🎕 120 ..... 10 2,4-DINITROTOLUENE ND 10 2,6-DINITROTOLUENE UG/L ND 10 DI-N-OCTYLPHTHALATE UG/L ND 1.0

(0) Page 4 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603261 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. SURFACE WATER Analysis Method: Extraction Method: Matrix: ΙI QC Level: Sample Date/Time: 14-MAR-96 1500 002 Lab Id: Received Date: 15-MAR-96 Client Sample Id: REEDY 2 Units: Results: Rpt Lmts: 0: Parameter: 10 , ND UG/L DIPHENYLAMINE UG/L UG/L ND 10 1,2-DIPHENYLHYDRAZINE ND 10 FLUORANTHENE UG/L ND 10 FLUORENE UG/L ND 10 HEXACHLOROBENZENE HEXACHLOROBUTADIENE UG/L ND 10UG/L ND 10 HEXACHLOROCYCLOPENTADIENE 10 HEXACHLOROETHANE UG/L ND UG/L UG/L 10 INDENO(1,2,3-cd) PYRENE ND ND 1.0 ISOPHORONE 3-METHYLCHOLANTHRENE UG/L ND 10 ND 10 2-METHYLNAPHTHALENE UG/L UG/L ND 10 NAPHTHALENE UG/L ND 10 1-NAPHTHYLAMINE UG/L ND 10 2-NAPHTHYLAMINE UG/L UG/L ND 10 2-NITROANILINE ND 103-NITROANILINE UG/L ND 10 4-NITROANILINE ND 10 NITROBENZENE UG/L N-NITROSODIMETHYLAMINE UG/L ND 10 N-NITROSODI-N-BUTYLAMINE UG/L ND 10UG/L ND 10 N-NITROSODIPHENYLAMINE UG/L ND 10 N-NITROSO-DI-N-PROPYLAMINE UG/L ND 1.0N-NITROSOPIPERIDINE PENTACHLOROBENZENE UG/L ND 10 PENTACHLORONITROBENZENE (PCNB) ND 10 UG/L PHENACETIN UG/L ND 10 UG/L ND 10 PHENANTHRENE 10 2-PICOLINE UG/L ND PRONAMIDE UG/L ND 10 UG/L ND 10 PYRENE 1,2,4,5-TETRACHLOROBENZENE UG/L ND 10 1,2,4 TRICHLOROBENZENE UG/L ND 10 %REC/SURR %REC/SURR 43-116 2-FLUOROBIPHENYL 70 35-114 64 NITROBENZENE-D5 %REC/SURR 79 33-124 TERPHENYL-D14 INITIALS PLANALYST

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Date 10-Apr-96

### "FINAL REPORT FORMAT - SINGLE"

603261 Accession: CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Analysis Method: Extraction Method: SURFACE WATER Matrix: ТΤ QC Level: Sample Date/Time: 14-MAR-96 1520 003 Lab Id: Received Date: 15-MAR-96 Client Sample Id: WD 1 20-MAR-96 Extraction Date: Batch: ALW024 Dry Weight %: N/A Analysis Date: 03-APR-96 Blank: A Units: Results: Rpt Lmts: O:Parameter: UG/L ND 10 ACENAPHTHENE UG/L UG/L ACENAPHTHYLENE ND 10 10 ACETOPHENONE ND UG/L ND 1.0 4 - AMINOBIPHENYL NÐ 10 ANILINE UG/L ANTHRACENE UG/L ND 10 UG/L ND 10 BENZIDINE BENZO (a) ANTHRACENE UG/L ND 10UG/L ND 10 BENZO(a) PYRENE UG/L 10 BENZO (b) FLUORANTHENE ND BENZO(g,h,i) PERYLENE UG/L ND 10 10 UG/L ND BENZO (k) FLUORANTHENE BENZYL ALCOHOL BIS(2-CHLOROETHYL)ETHER UG/L ND 10 UG/L ND 10 1.0 BIS (2-CHLOROETHOXY) METHANE UG/L ND BIS (2-CHLOROISOPROPYL) ETHER UG/L ND 10 BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 1.0 4 - BROMOPHENYL - PHENYLETHER UG/L ND 10 -73 BUTYLBENZYLPHTHALATE UG/L 29 10 4 - CHLOROANILINE UG/L ND 10 1 - CHLORONAPHTHALENE UG/L NÐ 10 UG/L ND 1.02-CHLORONAPHTHALENE 4 - CHLOROPHENYL - PHENYLETHER UG/L ND 10 UG/L ND 10 CHRYSENE DIBENZO (A, H) ANTHRACENE UG/L ND 10 DIBENZ(A, J) ACRIDINE UG/L ND 10 DIBENZOFURAN UG/L ND 10 1,2-DICHLOROBENZENE UG/L ND 10 10 UG/L ND 1, 3-DICHLOROBENZENE 1,4-DICHLOROBENZENE UG/L ND 10 UG/L 50 ND 3,3'-DICHLOROBENZIDINE DIETHYLPHTHALATE UG/L ND 10 P-DIMETHYLAMINOAZOBENZENE UG/L ND 10 UG/L 1.0 7,12-DIMETHYLBENZO(a)ANTHRACENE ND A-, A-DIMETHYLPHENETHYLAMINE UG/L ND 10 10 UG/L ND DIMETHYLPHTHALATE DI-N-BUTYLPHTHALATE 100 🗅 UG/L 10 UG/L ND 10 2,4-DINITROTOLUENE 10 UG/L ND 2,6-DINITROTOLUENE ND 10 DI-N-OCTYLPHTHALATE UG/L





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| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 603261<br>CSX TRANSPORTATI<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>BN EXTRACTABLES<br>8270 / SW-846, 3<br>3520 / SW-846, 3<br>SURFACE WATER<br>II | (8270)<br>3rd Edition,                                       | September 1984<br>September 1986                                                | 5 and Rev. 1,<br>5 and Rev. 1,                                        | July 1992.<br>July, 1992. |
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 003<br>WD 1                                                                                                                                               |                                                              | Sample Date<br>Received Da                                                      |                                                                       | 1AR-96 1520<br>1AR-96     |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                           | Units:                                                       | Results:                                                                        | Rpt Lmts:                                                             | Q :                       |
| DIPHENYLAMINE<br>1, 2 - DIPHENYLHYDRAZI<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBUTADIENI<br>HEXACHLOROBUTADIENI<br>HEXACHLOROCYCLOPENI<br>HEXACHLOROCTHANE<br>INDENO(1, 2, 3 - cd)PYI<br>ISOPHORONE<br>3 - METHYLCHOLANTHREN<br>2 - METHYLCHOLANTHREN<br>2 - METHYLCHOLANTHREN<br>2 - METHYLCHOLANTHREN<br>2 - METHYLCHOLANTHREN<br>2 - METHYLCHOLANTHREN<br>2 - NITHOANILINE<br>1 - NAPHTHYLAMINE<br>2 - NITROANILINE<br>3 - NITROANILINE<br>3 - NITROANILINE<br>NITROBENZENE<br>N - NITROSODIMETHYLAN<br>N - NITROSODIPHENYLAN<br>N - NITROSOPIPERIDIN<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBEN<br>PHENANTHRENE<br>2 - PICOLINE<br>PRONAMIDE<br>PYRENE<br>1, 2, 4, 5 - TETRACHLOR<br>1, 2, 4 TRICHLOROBENN<br>2 - FLUOROBIPHENYL<br>NITROBENZENE - D5<br>TERPHENYL - D14<br>ANALYST | E<br>TADIENE<br>RENE<br>NE<br>E<br>MINE<br>LAMINE<br>MINE<br>PYLAMINE<br>E<br>NZENE (PCNB)<br>OBENZENE                                                    | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $ \begin{array}{c} 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\$ |                           |

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 7 Date 10-Apr-96

### "FINAL REPORT FORMAT - SINGLE"

603261 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: Project Location: GREENVILLE, SC BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Analysis Method: Extraction Method: SURFACE WATER Matrix: OC Level: TT Sample Date/Time: 14-MAR-96 1530 004 Lab Id: Received Date: 15-MAR-96 Client Sample Id: FD 1 20-MAR-96 Batch: ALW024 Extraction Date: 03-APR-96 N/A Analysis Date: Blank: A Dry Weight %: Units: Results: Rpt Lmts: Q: Parameter: ND 10 ACENAPHTHENE UG/L UG/L ND 10ACENAPHTHYLENE UG/L ND 10 ACETOPHENONE 4-AMINOBIPHENYL UG/L ND 10 UG/L UG/L 10 ND ANILINE ND 10 ANTHRACENE UG/L ND 10 BENZIDINE UG/L ND 10 BENZO (a) ANTHRACENE BENZO (a) PYRENE UG/L ND 10 UG/L ND 10 BENZO(b) FLUORANTHENE UG/L ND 10 BENZO(g,h,i)PERYLENE BENZO (K) FLUORANTHENE UG/L ND 10 BENZYL ALCOHOL UG/L ND 10 BIS (2-CHLOROETHYL) ETHER UG/L ND 10BIS (2-CHLOROETHOXY) METHANE ND 10 UG/L UG/L BIS (2-CHLOROISOPROPYL) ETHER ND 10 BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 10 4-BROMOPHENYL-PHENYLETHER UG/L ND 10 3 BUTYLBENZYLPHTHALATE UG/L 38 10 4 - CHLOROANILINE UG/L ND 101.01-CHLORONAPHTHALENE UG/L ND 2 - CHLORONAPHTHALENE UG/L ND 10 UG/L 4 - CHLOROPHENYL - PHENYLETHER ND 10 CHRYSENE UG/L ND 10 ŪG/L UG/L DIBENZO (A, H) ANTHRACENE ND 10 DIBENZ(A, J) ACRIDINE ND 10 DIBENZOFURAN UG/L ND 10 ND 10 UG/L 1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE UG/L ND 10 UG/L ND 10 1,4-DICHLOROBENZENE 3.3'-DICHLOROBENZIDINE UG/L ND 50 DIETHYLPHTHALATE UG/L ND 10 P-DIMETHYLAMINOAZOBENZENE UG/L 10 ND 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/L ND 10 UG/L ND 10 A-, A-DIMETHYLPHENETHYLAMINE DIMETHYLPHTHALATE UG/L ND 10 23 DI-N-BUTYLPHTHALATE UG/L 82 10 10 2,4-DINITROTOLUENE UG/L ND 2,6-DINITROTOLUENE UG/L ND 10 UG/L DI-N-OCTYLPHTHALATE ND 10

[0) Page 8 Date 10-Apr-96

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# "FINAL REPORT FORMAT - SINGLE"

| Project Number:<br>Project Name:<br>Project Location:<br>Test:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 603261<br>CSX TRANSPORTAT<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>BN EXTRACTABLES<br>8270 / SW-846,<br>3520 / SW-846,<br>SURFACE WATER<br>II | 5 (8270)<br>3rd Edition.                                     | September<br>September                                                          | 1986 and<br>1986 and  | Rev. 1,<br>Rev. 1, | July,<br>July,       | 1992.<br>1992. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------|--------------------|----------------------|----------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 004<br>FD 1                                                                                                                                          |                                                              |                                                                                 | Date/Time<br>ed Date: |                    | 1AR - 96<br>1AR - 96 | 1530           |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                      | Units:                                                       | Results:                                                                        | Rpt                   | Lmts:              | Q :                  |                |
| DIPHENYLAMINE<br>1, 2 - DIPHENYLHYDRAZJ<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENT<br>HEXACHLOROCYCLOPENT<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYE<br>ISOPHORONE<br>3-METHYLCHOLANTHREN<br>2-METHYLCHOLANTHREN<br>2-METHYLNAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROSODIMETHYLAM<br>N-NITROSODIMETHYLAM<br>N-NITROSODIPHENYLAM<br>N-NITROSODIPHENYLAM<br>N-NITROSOPIPERIDINI<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBEN<br>PHENANTHRENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE<br>1,2,4,5-TETRACHLORO<br>1,2,4 TRICHLOROBENT<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | G<br>TADIENE<br>RENE<br>NE<br>E<br>MINE<br>MINE<br>PYLAMINE<br>E<br>NZENE (PCNB)<br>OBENZENE                                                         | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 35-                   | 116<br>114<br>124  |                      |                |

Accession:

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[0) Page 9 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" Crienc: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC Test: BN EXTRACTABLES (8270) Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Matrix: SOIL QC Level: II

| QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | II                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |  |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 005<br>NB8                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                | Sample Dat<br>Received I                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 14-MAR-9<br>15-MAR-9 |  |
| Batch: ALS021<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Dry Weight %:                                                                                                                                                                             | 50                                                                                                                                                                                                                                                                                                             | Extraction<br>Analysis I                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 19-MAR-9<br>04-APR-9 |  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                           | Units:                                                                                                                                                                                                                                                                                                         | Results:                                                                                                                                                            | Rpt Lm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ts: Q:               |  |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (a) PYRENE<br>BENZO (b) FLUORANTHE<br>BENZO (c) FLUOROTHYL)<br>BIS (2 - CHLOROETHYL)<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROENYL - PHEN<br>CHLOROANILINE<br>1 - CHLOROPHENYL - PHEN<br>CHRYSENE?<br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, H) ANTHRA<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>3, 3' - DICHLOROBENZEN<br>3, 3' - DICHLOROBENZEN<br>3, 3' - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>3, 3' - DICHLOROBENZEN<br>1, 4 - DIC | NE<br>NE<br>NE<br>NE<br>ETHER<br>) METHANE<br>PYL) ETHER<br>HTHALATE<br>YLETHER<br>TE<br>E<br>E<br>E<br>NYLETHER<br>CENE<br>E<br>E<br>E<br>DINE<br>BENZENE<br>(a) ANTHRACENE<br>THYLAMINE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | 600000<br>ND<br>ND<br>ND<br>1400000<br>780000<br>460000<br>780000<br>460000<br>700000<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | $\begin{array}{c} 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 660000\\ 6600000\\ 6600000\\ 660000\\ 660000\\ 660000\\ 660000\\ 6600$ | JJ                   |  |



[0) Page 10 Date 10-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 603261<br>CSX TRANSPORTAT<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>BN EXTRACTABLES<br>8270 / SW-846,<br>3520 / SW-846,<br>SOIL;<br>II | (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | September 1986<br>September 1986                                                                                                                                                            | and Rev. 1<br>and Rev. 1 | L, July 1992.<br>L, July, 1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 005<br>NB8                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Date<br>Received Da                                                                                                                                                                  |                          | MAR-96 0900<br>MAR-96           |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                              | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Results:                                                                                                                                                                                    | Rpt Lmts:                | Q :                             |
| DIPHENYLAMINE<br>1, 2 - DIPHENYLHYDRAZ<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROETHANE<br>INDENO(1,2,3-cd)PY<br>ISOPHORONE<br>3 -METHYLCHOLANTHRE<br>2 -NITROANILINE<br>3 -NITROANILINE<br>3 -NITROSONILINE<br>NITROBENZENE<br>N - NITROSODIPHENYLA<br>N - NITROSOPIPERIDIN<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PHENANTHRENE<br>PYRENE<br>1, 2, 4, 5 - TETRACHLOR<br>1, 2, 4 TRICHLOROBEN<br>2 - FLUOROBIPHENYL<br>NITROBENZENE - D5<br>TERPHENYL - D14<br>ANALYST | E<br>TADIENE<br>RENE <sup>*~</sup><br>NE<br>E<br>MINE<br>LAMINE<br>MINE<br>PYLAMINE<br>E<br>NZENE (PCNB)<br>OBENZENE                         | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>2000000<br>1700000<br>ND<br>ND<br>ND<br>340000 <sup>**</sup><br>ND<br>ND<br>3200000 <sup>**</sup><br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND |                          | J                               |

Comments: J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED.

Accession: Client:

Test:

Matrix: QC Level:

Project Number:

Project Location:

Project Name:

Batch: ALSO21 Blank: A

[0] Page 11 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603261 CSX TRANSPORTATION 4365B CSX GREENVILLE GREENVILLE, SC BN EXTRACTABLES (8270) Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. SOIL ΙI Sample Date/Time: 14-MAR-96 0935 Lab Id: Client Sample Id: 006 15-MAR-96 DP 16 Received Date: Extraction Date: 19-MAR-96 Dry Weight %: 81 Analysis Date: 04-APR-96

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| Parameter:<br>ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO(a) ANTHRACENE<br>BENZO(a) PYRENE<br>BENZO(b) FLUORANTHENE<br>BENZO(c) FLUORANTHENE<br>BENZO(c) FLUORANTHENE<br>BENZO(c) FLUORANTHENE<br>BENZO(c) FLUORANTHENE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL) ETHER<br>BIS (2 - CHLOROETHYL) ETHER<br>BIS (2 - CHLOROETHYL) ETHER<br>BIS (2 - CHLOROISOPROPYL) ETHER<br>BIS (2 - CHLORONAPHTHALATE<br>4 - CHLORONAPHTHALENE<br>2 - CHLORONAPHTHALENE<br>2 - CHLORONAPHTHALENE<br>4 - CHLOROPHENYL - PHENYLETHER<br>CHRYSENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, H) ANTHRACENE<br>1, 3 - DICHLOROBENZENE<br>1, 4 - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>1, 4 - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZENE<br>4 - A - DIMETHYLPHENETHYLAMINE<br>DIMETHYLPHTHALATE<br>0 - DIMETHYLPHTHALATE<br>2, 4 - DINITROTOLUENE<br>2, 6 - DINITROTOLUENE<br>DI - N - OCTYLPHTHALATE | Units: | Results: | Rpt Lmts: Q: |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|--------------|
| ACENAPHTHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UG/KG  | ND       | 410          |
| ACENAPHTHYLENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG  | ND       | 410          |
| ACETOPHENONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UG/KG  | ND       | 410          |
| 4 - AMINOBIPHENYL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UG/KG  | ND       | 410          |
| ANILINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/KG  | ND       | 410          |
| ANTHRACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UG/KG  | ND       | 410          |
| BENZIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG  | ND       | 410          |
| BENZO (a) ANTHRACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG  | ND       | 410          |
| BENZO(a) PYRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | UG/KG  | ND       | 410          |
| BENZO (b) FLUORANTHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UG/KG  | ND       | 410          |
| BENZO(g,h,i) PERYLENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/KG  | ND       | 410          |
| BENZO(k) FLUORANTHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/KG  | ND       | 410          |
| BENZYL ALCOHOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG  | ND       | 410          |
| BIS (2-CHLOROETHYL) ETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG  | ND       | 410          |
| BIS (2-CHLOROETHOXY) METHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UG/KG  | ND       | 410          |
| BIS (2-CHLOROISOPROPYL) ETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UG/KG  | ND       | 410          |
| BIS (2-ETHYLHEXYL) PHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |          | 410          |
| 4-BROMOPHENYL-PHENYLETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        | ND       | 410          |
| BUTYLBENZYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG  | ND       | 410          |
| 4 - CHLOROANILINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |          | 410          |
| 1-CHLORONAPHTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | ND       | 410          |
| 2 - CHLORONAPHTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |          | 410          |
| 4 - CHLOROPHENYL-PHENYLETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        | ND       | 410          |
| CHRYSENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        | ND       | 410          |
| DIBENZO (A, H) ANTHRACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |          | 410          |
| DIBENZ(A, J) ACRIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        | ND<br>ND | 410          |
| DIBENZOFURAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |          | 410          |
| 1, 2-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        | ND       | 410          |
| 1, 3-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |          | 410          |
| 1,4-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |          | 2000         |
| 3, 3' - DICHLOROBENZIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        | ND       | 410          |
| DIETRILPHIHALAIE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |          | 410          |
| P-DIMETRYLAMINOAZOBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |          | 410          |
| /, IZ-DIMEIHILBENZO(d/ANIRKACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        | ND       | 410          |
| A-, A-DIMEINILPHENEINILAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |          | 410          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | ND       | 410          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | ND       | 410          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | ND       | 410          |
| Z, O-DINIIKUIUUUUUNU<br>DI-M-ACTVI.DUTHAIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        | ND       | 410          |
| DI-N-OCTIBENTIADATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 00/10  |          | · · · ·      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |          |              |

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| Accession:603261Client:CSX TRANSPORTAProject Number:4365BProject Name:CSX GREENVILLEProject Location:GREENVILLE, SCTest:BN EXTRACTABLEAnalysis Method:8270 / SW-846,Extraction Method:3520 / SW-846,Matrix:SOILQC Level:II                                                                                                                                                                                                                                                                                                                                                                                                                                                | S (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | September 1986<br>September 1986                                                | 5 and Rev. 1<br>5 and Rev. 1                                       | , July 1992.<br>, July, 1992. |
| Lab Id: 006<br>Client Sample Id: DP 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Date<br>Received Da                                                      |                                                                    | MAR-96 0935<br>MAR-96         |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Results:                                                                        | Rpt Lmts:                                                          | Q :                           |
| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZINE<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENTADIENE<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYRENE<br>ISOPHORONE<br>3-METHYLCHOLANTHRENE<br>2-METHYLNAPHTHALENE<br>NAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>NITROBENZENE<br>N-NITROSODIMETHYLAMINE<br>N-NITROSODIPHENYLAMINE<br>N-NITROSODIPHENYLAMINE<br>N-NITROSOPIPERIDINE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE<br>1,2,4,5-TETRACHLOROBENZENE<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $\begin{array}{c} 410\\ 410\\ 410\\ 410\\ 410\\ 410\\ 410\\ 410\\$ |                               |

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 13 Date 10-Apr-96

### "FINAL REPORT FORMAT - SINGLE"

Accession: 603261 CSX TRANSPORTATION Client: Project Number: Project Name: 4365B CSX GREENVILLE GREENVILLE, SC Project Location: Test: BN EXTRACTABLES (8270) 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Analysis Method: Extraction Method: SOIL Matrix: QC Level: IΙ Sample Date/Time: 14-MAR-96 1000 Lab Id: 007 DP 21 Client Sample Id: Received Date: 15-MAR-96 19-MAR-96 Batch: ALS021 Extraction Date: Dry Weight %: Analysis Date: 04-APR-96 Blank: A 73 Units: Results: Rpt Lmts: Parameter: Q: ACENAPHTHENE UG/KG ND 450 UG/KG NÐ ACENAPHTHYLENE 450 ACETOPHENONE UG/KG ND 450 UG/KG 4 - AMINOBIPHENYL ND 450 ANILINE UG/KG ND 450 UG/KG UG/KG ANTHRACENE ND 450 BENZIDINE ND 450 BENZO(a) ANTHRACENE UG/KG ND 450 BENZO(a) PYRENE UG/KG ND 450 BENZO (b) FLUORANTHENE UG/KG NÐ 450 BENZO(g,h,i) PERYLENE BENZO(k) FLUORANTHENE UG/KG ND 450 UG/KG NÐ 450 UG/KG UG/KG BENZYL ALCOHOL ND 450 BIS (2-CHLOROETHYL) ETHER ND 450 **BIS (2 - CHLOROETHOXY) METHANE** UG/KG ND 450 BIS (2-CHLOROISOPROPYL) ETHER UG/KG ND 450 BIS (2-ETHYLHEXYL) PHTHALATE UG/KG ND 450 UG/KG 4 - BROMOPHENYL - PHENYLETHER ND 450 UG/KG BUTYLBENZYLPHTHALATE ND 450 UG/KG UG/KG 4-CHLOROANILINE ND 450 1 - CHLORONAPHTHALENE ND 450 2 - CHLORONAPHTHALENE UG/KG ND 450 4 - CHLOROPHENYL - PHENYLETHER UG/KG ND 450 UG/KG CHRYSENE ND 450 UG/KG DIBENZO (A, H) ANTHRACENE ND 450 UG/KG DIBENZ(A, J) ACRIDINE ND 450 UG/KG UG/KG DIBENZOFURAN ND 450 1,2-DICHLOROBENZENE ND 450 1,3-DICHLOROBENZENE UG/KG ND 450 1,4-DICHLOROBENZENE UG/KG ND 450 UG/KG 3,3'-DICHLOROBENZIDINE ND 2300 UG/KG DIETHYLPHTHALATE ND 450 P-DIMETHYLAMINOAZOBENZENE UG/KG ND 450 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/KG ND 450 UG/KG A-, A-DIMETHYLPHENETHYLAMINE ND 450 DIMETHYLPHTHALATE UG/KG ND 450 UG/KG UG/KG DI-N-BUTYLPHTHALATE ND 450 2,4-DINITROTOLUENE NÐ 450 2,6-DINITROTOLUENE UG/KG ND 450 DI-N-OCTYLPHTHALATE UG/KG ND 450





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603261 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. SOIL Matrix: ΙI QC Level: Sample Date/Time: 14-MAR-96 1000 Lab Id: 007 Received Date: 15-MAR-96 Client Sample Id: DP 21 Units: Results: Rpt Lmts: Q: Parameter: ND 450 DIPHENYLAMINE UG/KG UG/KG UG/KG 1,2-DIPHENYLHYDRAZINE ND 450 450 ND FLUORANTHENE UG/KG ND 450 FLUORENE 450 UG/KG ND HEXACHLOROBENZENE HEXACHLOROBUTADIENE UG/KG ND 450 UG/KG ND 450 HEXACHLOROCYCLOPENTADIENE HEXACHLOROETHANE 450 UG/KG ND INDENO(1,2,3-cd) PYRENE UG/KG ND 450 UG/KG 450 ND ISOPHORONE 3-METHYLCHOLANTHRENE UG/KG ND 450 450 UG/KG ND 2-METHYLNAPHTHALENE UG/KG ND 450 NAPHTHALENE 1-NAPHTHYLAMINE UG/KG ND 450 450 UG/KG ND 2-NAPHTHYLAMINE 2-NITROANILINE UG/KG ND 450 UG/KG 450 ND 3-NITROANILINE UG/KG 4-NITROANILINE ND 450 UG/KG UG/KG ND 450 NITROBENZENE 450 N-NITROSODIMETHYLAMINE ND UG/KG ND 450 N-NITROSODI-N-BUTYLAMINE UG/KG ND N-NITROSODIPHENYLAMINE 450 N-NITROSO-DI-N-PROPYLAMINE UG/KG ND 450 N-NITROSOPIPERIDINE UG/KG ND 450 PENTACHLOROBENZENE UG/KG ND 450 UG/KG UG/KG PENTACHLORONITROBENZENE (PCNB) ND 450 PHENACETIN ND 450 UG/KG 450 ND PHENANTHRENE 2-PICOLINE UG/KG ND 450 UG/KG ND 450 PRONAMIDE UG/KG ND 450 PYRENE 1,2,4,5-TETRACHLOROBENZENE UG/KG ND 450 1,2,4 TRICHLOROBENZENE UG/KG ND 450 %REC/SURR 2-FLUOROBIPHENYL 68 30-115 %REC/SURR 23-120 NITROBENZENE-D5 64 %REC/SURR 69 18-137 TERPHENYL-D14 INITIALS PL ANALYST

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Analysis Report

Analysis: SW 846 8260 TABLE SIX

Accession: 603602 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSXT-GREENVILLE Project Location: GREENVILLE, SC Department: ORGANIC/MS

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### "FINAL REPORT FORMAT - SINGLE"

603602 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSXT-GREENVILLE Project Name: Project Location: GREENVILLE, SC Test: SW 846 8260 TABLE SIX Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A SOIL Matrix: QC Level: ΊI Sample Date/Time: 27-MAR-96 1210 Lab Id: 001 29-MAR-96 Received Date: DP 23 Client Sample Id: Batch: MAS038 Extraction Date: N/A 08-APR-96 Dry Weight %: 71 Analysis Date: Blank: A Results: Rpt Lmts: Q : Units: Parameter: UG/KG ND 7 BENZENE 7 UG/KG ND BROMOBENZENE 7 UG/KG ND BROMOCHLOROMETHANE , 7 7 UG/KG ND BROMODICHLOROMETHANE UG/KG ND BROMOFORM 7 7 UG/KG ND BROMOMETHANE UG/KG UG/KG ND CARBON TETRACHLORIDE 7 ND CHLOROBENZENE 7 7 UG/KG ND CHLOROETHANE UG/KG ND CHLOROFORM 7 UG/KG ND CHLOROMETHANE 7 UG/KG ND 2-CHLOROTOLUENE ND 7 UG/KG 4 - CHLOROTOLUENE CIS 1,2 DICHLOROETHYLENE 7 UG/KG ND UG/KG 7 ND CHLORODIBROMOMETHANE ND 7 UG/KG DIBROMOMETHANE UG/KG UG/KG 7 1,4-DICHLOROBENZENE ND 1,3-DICHLOROBENZENE 7 ND UG/KG ND 7 1,2-DICHLOROBENZENE ND 7 UG/KG DICHLORODIFLUOROMETHANE 1,1-DICHLOROETHANE 7 UG/KG ND 7 UG/KG ND 1,2-DICHLOROETHANE 1,1-DICHLOROETHENE ND 7 7 7 7 UG/KG UG/KG ND 1,3 DICHLOROPROPANE 2,2-DICHLOROPROPANE UG/KG ND 1,2-DICHLOROPROPANE UG/KG ND ND 777777777777 UG/KG CIS-1, 3-DICHLOROPROPENE TRANS-1, 3-DICHLOROPROPENE UG/KG ND UG/KG ND 1,1 DICHLOROPROPENE ETHYL BENZENE UG/KG ND UG/KG UG/KG HEXACHLOROBUTADIENE ND ND ISOPROPYL BENZENE UG/KG ND P-ISOPROPYLTOLUENE UG/KG ND METHYLENE CHLORIDE UG/KG ND NAPHTHALENE UG/KG ND N-BUTYL BENZENE 7 7 ND UG/KG N-PROPYL BENZENE UG/KG ND SEC-BUTYL BENZENE 7 UG/KG ND STYRENE 7 TERT-BUTYL BENZENE UG/KG ND





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[0) Page 2 Date 12-Apr-96

"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                           | SW 846 8260 TABL<br>8260 / SW-846, 3                                        | E SIX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | eptember 1986                                                                   | and Rev.                                                                                    | 1, July                  | 1992. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------|-------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                        | 001<br>DP 23                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sample Date<br>Received Da                                                      |                                                                                             | - MAR - 96<br>- MAR - 96 | 1210  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                             | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Results:                                                                        | Rpt Lmts:                                                                                   | Q :                      |       |
| 1,1,1,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,4 TRICHLOROBEN<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMET<br>1,2,3 TRICHLOROPRO<br>1,2,4 TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>0-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>VG/SURR<br>%<br>REC/SURR<br>%<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N<br>N | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7 |                          |       |

[0) Page 3 Date 12-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

603602 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSXT-GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A SOIL Matrix: QC Level: IΙ Sample Date/Time: 27-MAR-96 0945 002 Lab Id: Client Sample Id: DP 26 Received Date: 29-MAR-96 Batch: MAS038 Extraction Date: N/A Dry Weight %: 67 Analysis Date: . 08-APR-96 Blank: A Units: Results: Rpt Lmts: Q: Parameter: ND 7 UG/KG BENZENE BROMOBENZENE UG/KG ND 7 UG/KG UG/KG 7 BROMOCHLOROMETHANE ND 7 ND BROMODICHLOROMETHANE 7 BROMOFORM UG/KG ND 7 UG/KG ND BROMOMETHANE 7 CARBON TETRACHLORIDE UG/KG ND CHLOROBENZENE UG/KG ND 7 7 7 UG/KG ND CHLOROETHANE UG/KG UG/KG ND CHLOROFORM 7 7 CHLOROMETHANE ND UG/KG 2-CHLOROTOLUENE ND UG/KG 7 7 ND 4 - CHLOROTOLUENE CIS 1,2 DICHLOROETHYLENE UG/KG ND 7 UG/KG ND CHLORODIBROMOMETHANE 7 7 UG/KG DIBROMOMETHANE ND UG/KG UG/KG 1,4-DICHLOROBENZENE ND 7 ND 1, 3-DICHLOROBENZENE 7 1,2-DICHLOROBENZENE UG/KG ND 7 DICHLORODIFLUOROMETHANE UG/KG ND UG/KG 7 1, 1-DICHLOROETHANE ND 1,2-DICHLOROETHANE 7 UG/KG ND 7 7 1,1-DICHLOROETHENE UG/KG ND 1,3 DICHLOROPROPANE UG/KG ND UG/KG 7 ND 2,2-DICHLOROPROPANE 7 1,2-DICHLOROPROPANE UG/KG ND UG/KG UG/KG 7 7 CIS-1, 3-DICHLOROPROPENE ND TRANS-1, 3-DICHLOROPROPENE ND 7 7 UG/KG 1,1 DICHLOROPROPENE ND UG/KG ND ETHYL BENZENE 7 UG/KG ND HEXACHLOROBUTADIENE UG/KG 7 ND ISOPROPYL BENZENE 7 7 P-ISOPROPYLTOLUENE UG/KG ND UG/KG ND METHYLENE CHLORIDE . 7 7 UG/KG ND NAPHTHALENE N-BUTYL BENZENE UG/KG ND 7 ND N-PROPYL BENZENE UG/KG 7 SEC-BUTYL BENZENE UG/KG ND UG/KG 7 ND STYRENE 7 TERT-BUTYL BENZENE UG/KG ND

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[0) Page 4 Date 12-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                 | SW 846 8260 TAB<br>8260 / SW-846,                                                  | LE SIX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | September 198                                                                   | 6 and Rev. 1                                                                                | , July 1           | 1992. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------|-------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                              | 002<br>DP 26                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Dat<br>Received D                                                        |                                                                                             | MAR-96 0<br>MAR-96 | 945   |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                    | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Results:                                                                        | Rpt Lmts:                                                                                   | Q :                |       |
| 1,1,1,2,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,2-TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMET<br>1,2,3 TRICHLOROPRO<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>NG/KG<br>UG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG<br>NG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7 |                    |       |

ANALYTICAL TECHNOLOGIES, INC.

{0} Page 5 Date 12-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSXT-GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: ΙI 003 Lab Id: Sample Date/Time: 27-MAR-96 1015 Client Sample Id: DP 28 Received Date: 29-MAR-96 Batch: MAS038 Extraction Date: N/A Dry Weight %: 70 Blank: A 08-APR-96 Analysis Date: Parameter: Units: Results: Rpt Lmts: Q: UG/KG 7 7 BENZENE BROMOBENZENE UG/KG ND 7 BROMOCHLOROMETHANE UG/KG 7 ND BROMODICHLOROMETHANE UG/KG 7 ND BROMOFORM UG/KG ND 7 BROMOMETHANE UG/KG 7 ND UG/KG UG/KG CARBON TETRACHLORIDE ND 7 CHLOROBENZENE 7 ND CHLOROETHANE UG/KG ND 7 CHLOROFORM UG/KG 7 7 ND CHLOROMETHANE UG/KG ND 2 - CHLOROTOLUENE UG/KG ND 7 4 - CHLOROTOLUENE UG/KG 7 ND CIS 1,2 DICHLOROETHYLENE UG/KG ND 7 CHLORODIBROMOMETHANE UG/KG 7 ND DIBROMOMETHANE 7 UG/KG ND UG/KG UG/KG 1,4-DICHLOROBENZENE 7 7 ND 1,3-DICHLOROBENZENE ND 1,2-DICHLOROBENZENE UG/KG 7 ND DICHLORODIFLUOROMETHANE UG/KG 7 ND 1,1-DICHLOROETHANE UG/KG ND 7 1,2-DICHLOROETHANE UG/KG ND 7 1,1-DICHLOROETHENE 7 UG/KG ND 1,3 DICHLOROPROPANE UG/KG UG/KG 7 ND 2,2-DICHLOROPROPANE 7 ND 1,2-DICHLOROPROPANE UG/KG ND 7 CIS-1, 3-DICHLOROPROPENE TRANS-1, 3-DICHLOROPROPENE UG/KG UG/KG ND 7 7 ND 1,1 DICHLOROPROPENE UG/KG 7 ND ETHYL BENZENE 7 UG/KG ND HEXACHLOROBUTADIENE UG/KG ND 7 UG/KG 7 ISOPROPYL BENZENE ND P-ISOPROPYLTOLUENE UG/KG ND 7 UG/KG UG/KG METHYLENE CHLORIDE ND 7 NAPHTHALENE 7 20 % N-BUTYL BENZENE UG/KG ND 7 UG/KG N-PROPYL BENZENE ND 7 7 SEC-BUTYL BENZENE UG/KG ND UG/KG STYRENE " 34 -7 TERT-BUTYL BENZENE ND UG/KG 7

[0) Page 6 Date 12-Apr-96

#### "FINAL REPORT FORMAT - SINGLE"

Accession: 603602 CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSXT-GREENVILLE Project Location: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Test: Analysis Method: Extraction Method: N/A SOIL Matrix: QC Level: II Lab Id: 003 Sample Date/Time: 27-MAR-96 1015 Client Sample Id: DP 28 Received Date: 29-MAR-96 Parameter: Units: Rpt Lmts: Results: Q: 1, 1, 1, 2-TETRACHLOROETHANE UG/KG 7 ND 1, 1, 2, 2-TETRACHLOROETHANE TETRACHLOROETHENE UG/KG 7 ND UG/KG ND 7 TOLUENE UG/KG UG/KG 7 7 ND TRANS 1,2 DICHLOROETHYLENE ND 1, 1, 1-TRICHLOROETHANE UG/KG ND 7 1, 1, 2 - TRICHLOROETHANE 1, 2, 3 TRICHLOROBENZENE UG/KG 7 ND 7 UG/KG ND 1,2,4 TRICHLOROBENZENE UG/KG 7 ND TRICHLOROETHENE 7 UG/KG ND UG/KG UG/KG TRICHLOROFLUOROMETHANE ND 7 7 1,2,3 TRICHLOROPROPANE ND 1,2,4-TRIMETHYLBENZENE UG/KG ND 7 1,3,5-TRIMETHYLBENZENE UG/KG 7 7 ND VINYL CHLORIDE UG/KG ND M, P-XYLENE UG/KG 7 7 ND **O-XYLENE** UG/KG ND UG/KG UG/KG HEPTANE ND 7 ISOPROPYL ACETATE 29 ND METHYL CYCLOHEXANE UG/KG ND 14 PROPYL ACETATE UG/KG ND 29 DIBROMOFLUOROMETHANE %REC/SURR 99 80-120 TOLUENE - D8 %REC/SURR 93 81-117 BROMOFLUOROBENZENE %REC/SURR 128\* 74-121 ANALYST INITIALS LL

[0) Page 7 Date 12-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 Accession: Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSXT-GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: II Lab Id: 004 Sample Date/Time: 27-MAR-96 1045 Client Sample Id: DP 29 Received Date: 29-MAR-96 Batch: MAS038 Extraction Date: N/A Blank: A Dry Weight %: 64 Analysis Date: 08-APR-96 Parameter: Units: Results: Rpt Lmts: Q: BENZENE UG/KG ND 8 BROMOBENZENÉ UG/KG ND 8 UG/KG UG/KG BROMOCHLOROMETHANE ND 8 BROMODICHLOROMETHANE ND 8 UG/KG BROMOFORM ND 8 BROMOMETHANE ND UG/KG 8 CARBON TETRACHLORIDE UG/KG ND 8 UG/KG CHLOROBENZENE ND 8 CHLOROETHANE UG/KG ND 8 UG/KG UG/KG CHLOROFORM ND 8 CHLOROMETHANE NÐ 8 2-CHLOROTOLUENE UG/KG ND 8 4 - CHLOROTOLUENE UG/KG ND 8 CIS 1,2 DICHLOROETHYLENE UG/KG ND 8 CHLORODIBROMOMETHANE UG/KG ND 8 DIBROMOMETHANE UG/KG ND 8 1,4-DICHLOROBENZENE UG/KG UG/KG 8 ND 1,3-DICHLOROBENZENE ND 8 1,2-DICHLOROBENZENE UG/KG ND 8 DICHLORODIFLUOROMETHANE UG/KG 8 ND UG/KG 1,1-DICHLOROETHANE ND 8 1,2-DICHLOROETHANE UG/KG ND 8 1,1-DICHLOROETHENE UG/KG ND 8 1,3 DICHLOROPROPANE UG/KG ND 8 2,2-DICHLOROPROPANE UG/KG ND 8 1,2-DICHLOROPROPANE UG/KG ND 8 CIS-1, 3-DICHLOROPROPENE UG/KG ND 8 TRANS-1, 3-DICHLOROPROPENE UG/KG ND 8 1.1 DICHLOROPROPENE UG/KG ND 8 ETHYL BENZENE UG/KG ND 8 UG/KG UG/KG HEXACHLOROBUTADIENE ND 8 ISOPROPYL BENZENE ND 8 P-ISOPROPYLTOLUENE UG/KG ND 8 METHYLENE CHLORIDE UG/KG 8 ND NAPHTHALENE 🧐 210 ~ UG/KG 8 N-BUTYL BENZENE UG/KG ND 8 N-PROPYL BENZENE UG/KG 8 ND SEC-BUTYL BENZENE UG/KG 8 ND

UG/KG

UG/KG

NÐ

ND

8

8

STYRENE

TERT-BUTYL BENZENE

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------|----------------|
| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                              | 603602<br>CSX TRANSPORTAT:<br>4365B<br>CSXT-GREENVILLE<br>GREENVILLE, SC<br>SW 846 8260 TABI<br>8260 / SW-846, SOIL<br>N/A<br>SOIL<br>II | LE SIX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | September 1986                                                                  | and Rev                                                            | 7. 1, Jul            | y 1992.        |
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 004<br>DP 29                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Sample Date<br>Received Da                                                      |                                                                    | 27-MAR-9<br>29-MAR-9 |                |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                          | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Results:                                                                        | Rpt Lmt                                                            | s: Q:                |                |
| 1,1,1,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,4 TRICHLOROBEN<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMETI<br>1,2,4 TRICHLOROPRC<br>1,2,4 TRICHLOROPRC<br>1,2,4 TRICHLOROPRC<br>1,2,4 TRICHLOROPRC<br>1,2,4 TRICHLOROPRC<br>1,2,4 TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>0-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>ZENE<br>ZENE<br>ZENE<br>ZENE<br>ZE                                                        | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>VG<br>KR<br>KEC/SURR<br>KR<br>KEC/SURR | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 |                      |                |

Comments: \* SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

[0] Page 9 Date 12-Apr-96

#### "FINAL REPORT FORMAT - SINGLE"

603602 Accession: CSX TRANSPORTATION Client: Project Number: Project Name: 4365B CSXT-GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A SOIL Matrix: QC Level: II Sample Date/Time: 27-MAR-96 1105 005 Lab Id: Client Sample Id: DP 9 Received Date: 29-MAR-96 Batch: MAS038 Extraction Date: N/A 08-APR-96 Blank: A Dry Weight %: 85 Analysis Date: Units: Results: Rpt Lmts: Parameter: Q: BENZENE UG/KG ND 6 BROMOBENZENE UG/KG ND 6 UG/KG UG/KG BROMOCHLOROMETHANE 6 ND ND BROMODICHLOROMETHANE 6 BROMOFORM UG/KG ND 6 UG/KG UG/KG 6 BROMOMETHANE ND CARBON TETRACHLORIDE ND 6 C'HLOROBENZENE UG/KG б ND CHLOROETHANE UG/KG 6 ND UG/KG UG/KG CHLOROFORM 6 ND CHLOROMETHANE ND 6 2 - CHLOROTOLUENE UG/KG ND 6 UG/KG UG/KG 4 - CHLOROTOLUENE ND 6 CIS 1,2 DICHLOROETHYLENE ND 6 CHLORODIBROMOMETHANE UG/KG 6 6 ND DIBROMOMETHANE UG/KG ND 1,4-DICHLOROBENZENE UG/KG ND 6 1, 3-DICHLOROBENZENE UG/KG ND 6 1,2-DICHLOROBENZENE UG/KG ND 6 UG/KG UG/KG DICHLORODIFLUOROMETHANE ND 6 1,1-DICHLOROETHANE ND 6 1,2-DICHLOROETHANE UG/KG ND 6 1,1-DICHLOROETHENE UG/KG 6 ND 1,3 DICHLOROPROPANE UG/KG ND 6 2,2-DICHLOROPROPANE 6 6 UG/KG ND UG/KG 1,2-DICHLOROPROPANE ND 6 6 CIS-1, 3-DICHLOROPROPENE UG/KG ND UG/KG TRANS-1, 3-DICHLOROPROPENE ND 1,1 DICHLOROPROPENE UG/KG ND 6 UG/KG UG/KG ETHYL BENZENE 6 ND HEXACHLOROBUTADIENE ND 6 UG/KG 6 6 ISOPROPYL BENZENE ND P-ISOPROPYLTOLUENE UG/KG UG/KG ND METHYLENE CHLORIDE ND 6 6 6 NAPHTHALENE UG/KG 695 UG/KG N-BUTYL BENZENE ND N-PROPYL BENZENE UG/KG ND 6 UG/KG SEC-BUTYL BENZENE ND 6 UG/KG STYRENE ND 6 TERT-BUTYL BENZENE UG/KG ND 6



[0) Page 10 Date 12-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603602 Client: CSX TRANSPORTATION 4365B Project Number: CSXT-GREENVILLE Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A SOIL Matrix: ΙI QC Level: Sample Date/Time: 27-MAR-96 1105 005 Lab Id: 29-MAR-96 DP 9 Received Date: Client Sample Id: Units: Results: Rpt Lmts: 0: Parameter: 1, 1, 1, 2-TETRACHLOROETHANE 1, 1, 2, 2-TETRACHLOROETHANE TETRACHLOROETHENE UG/KG ND 6 UG/KG ND 6 UG/KG ND 6 UG/KG 6 6 ND TOLUENE UG/KG TRANS 1,2 DICHLOROETHYLENE ND 1,1,1-TRICHLOROETHANE UG/KG UG/KG 6 ND 1, 1, 2-TRICHLOROETHANE 6 ND 1,2,3 TRICHLOROBENZENE UG/KG ND 6 1,2,4 TRICHLOROBENZENE 6 UG/KG ND UG/KG 6 TRICHLOROETHENE ND UG/KG 6 TRICHLOROFLUOROMETHANE ND 1,2,3 TRICHLOROPROPANE 6 UG/KG ND 1,2,4-TRIMETHYLBENZENE UG/KG UG/KG ND 6 6 6 1,3,5-TRIMETHYLBENZENE ND VINYL CHLORIDE UG/KG ND UG/KG UG/KG ND 6 M, P-XYLENE 6 **O-XYLENE** ND UG/KG ND 6 HEPTANE UG/KG 24 ND ISOPROPYL ACETATE METHYL CYCLOHEXANE PROPYL ACETATE UG/KG ND 12 UG/KG ND 24 DIBROMOFLUOROMETHANE %REC/SURR 96 80-120 %REC/SURR %REC/SURR 92 81-117 TOLUENE-D8 109 74-121 BROMOFLUOROBENZENE

INITIALS

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Comments:

ANALYST

Analysis Report

Analysis: BN EXTRACTABLES (8270)

Accession:603602Client:CSX TRANSPORTATIONProject Number:4365BProject Name:CSXT-GREENVILLEProject Location:GREENVILLE, SCDepartment:ORGANIC/MS

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AMERICAN ENVIRONMENTAL NETWORK

[0) Page 1 Date 24-Apr-96

#### "FINAL REPORT FORMAT - SINGLE"

603602 Accession: CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSXT-GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: II QC Level: Sample Date/Time: 27-MAR-96 1210 001 Lab Id: Received Date: 29-MAR-96 Client Sample Id: DP 23 01-APR-96 Extraction Date: Batch: ALS023 Analysis Date: 04-APR-96 Dry Weight %: 71 Blank: A Units: Results: Rpt Lmts: Q: Parameter: UG/KG 330 ND ACENAPHTHENE UG/KG 330 ND ACENAPHTHYLENE UG/KG NÐ 330 ACETOPHENONE UG/KG ND 330 4-AMINOBIPHENYL UG/KG 330 ND ANILINE ANTHRACENE UG/KG ND 330 ND 330 UG/KG BENZIDINE BENZO (a) ANTHRACENE UG/KG ND 330 UG/KG ND 330 BENZO(a) PYRENE UG/KG ND 330 BENZO(b) FLUORANTHENE BENZO(g,h,i)PERYLENE UG/KG ND 330 UG/KG ND 330 BENZO (K) FLUORANTHENE UG/KG ND 330 BENZYL ALCOHOL UG/KG UG/KG BIS (2 - CHLOROETHYL) ETHER ND 330 BIS (2 - CHLOROETHOXY) METHANE ND 330 BIS (2-CHLOROISOPROPYL) ETHER UG/KG ND 330 330 BIS (2-ETHYLHEXYL) PHTHALATE UG/KG ND 4 - BROMOPHENYL - PHENYLETHER UG/KG ND 330 UG/KG ND 330 BUTYLBENZYLPHTHALATE UG/KG 4 - CHLOROANILINE ND 330 UG/KG UG/KG 330 1 - CHLORONAPHTHALENE ND ND 330 2-CHLORONAPHTHALENE UG/KG ND 330 4 - CHLOROPHENYL - PHENYLETHER UG/KG ND 330 CHRYSENE DIBENZO (A, H) ANTHRACENE UG/KG ND 330 UG/KG 330 ND DIBENZ(A, J) ACRIDINE UG/KG ND DIBENZOFURAN 330 1,2-DICHLOROBENZENE UG/KG ND 330 UG/KG ND 330 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE UG/KG ND 330 UG/KG UG/KG 3,3'-DICHLOROBENZIDINE 1700 ND ND 330 DIETHYLPHTHALATE UG/KG ND 330 P-DIMETHYLAMINOAZOBENZENE 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/KG ND 330 A-, A-DIMETHYLPHENETHYLAMINE UG/KG ND 330 UG/KG ND 330 DIMETHYLPHTHALATE DI-N-BUTYLPHTHALATE UG/KG ND 330 NÐ 330 2,4-DINITROTOLUENE UG/KG UG/KG 330 ND 2,6-DINITROTOLUENE UG/KG ND 330 DI-N-OCTYLPHTHALATE



[0) Page 2 Date 24-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSXT-GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Matrix: SOIL II OC Level: Sample Date/Time: 001 27-MAR-96 1210 Lab Id: 29-MAR-96 Received Date: Client Sample Id: DP 23 Rpt Lmts: Q: Parameter: Units: Results: UG/KG UG/KG ND 330 DIPHENYLAMINE 1,2-DIPHENYLHYDRAZINE ND 330 UG/KG 330 FLUORANTHENE ND UG/KG ND 330 FLUORENE UG/KG UG/KG ND 330 HEXACHLOROBENZENE HEXACHLOROBUTADIENE ND 330 HEXACHLOROCYCLOPENTADIENE UG/KG ND 330 HEXACHLOROETHANE UG/KG ND 330 UG/KG INDENO(1,2,3-cd) PYRENE ND 330 ISOPHORONE UG/KG ND 330 3-METHYLCHOLANTHRENE UG/KG ND 330 UG/KG UG/KG 2-METHYLNAPHTHALENE ND 330 NAPHTHALENE ND 330 1-NAPHTHYLAMINE UG/KG ND 330 UG/KG ND 2-NAPHTHYLAMINE 330 UG/KG 2-NITROANILINE ND 330 UG/KG ND 330 3-NITROANILINE UG/KG 4-NITROANILINE ND 330 UG/KG ND NITROBENZENE 330 UG/KG N-NITROSODIMETHYLAMINE ND 330 N-NITROSODI-N-BUTYLAMINE UG/KG ND 330 N-NITROSODIPHENYLAMINE UG/KG ND 330 N-NITROSO-DI-N-PROPYLAMINE UG/KG NÐ 330 N-NITROSOPIPERIDINE UG/KG ND 330 PENTACHLOROBENZENE UG/KG ND 330 UG/KG UG/KG PENTACHLORONITROBENZENE (PCNB) ND 330 PHENACETIN ND 330 PHENANTHRENE UG/KG ND 330 UG/KG ND 2-PICOLINE 330 PRONAMIDE UG/KG ND 330 UG/KG ND 330 PYRENE 1,2,4,5-TETRACHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/KG ND 330 UG/KG ND 330 2 - FLUOROBIPHENYL %REC/SURR 69 30-115 NITROBENZENE-D5 %REC/SURR 62 23-120 %REC/SURR 73 18-137 TERPHENYL-D14 ANALYST INITIALS ΡL

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[0) Page 3 Date 24-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | BN EXTRACTABLE<br>8270 / SW-846,                                                                                                                                             | E<br>S (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                        | September 19<br>September 19                                                    | 986 and Re<br>986 and Re                             | ev. 1, July<br>ev. 1, July | 1992.<br>1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 002<br>DP 26                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                      | Sample Da<br>Received                                                           |                                                      | 27-MAR-96<br>29-MAR-96     | 0945           |
| Batch: ALS023<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Dry Weight %:                                                                                                                                                                | 67                                                                                                                                                                                                                                                                                                                                                                   | Extractic<br>Analysis                                                           |                                                      | 01-APR-96<br>08-APR-96     |                |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                              | Units:                                                                                                                                                                                                                                                                                                                                                               | Results:                                                                        | Rpt La                                               | nts: Q:                    |                |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (b) FLUORANTHE<br>BENZO (c) PYRENE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL)<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROISOPRC<br>BIS (2 - CHLORONAPHTHALAN<br>2 - CHLORONAPHTHALEN<br>2 - CHLORONAPHTHALEN<br>1 - CHLOROPHENYL - PHE<br>CHRYSENE<br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, H) ANTHRA<br>DI A - DICHLOROBENZEN<br>A, A - | NE<br>NE<br>NE<br>ETHER<br>METHANE<br>PYLL ETHER<br>HTHALATE<br>YLETHER<br>TE<br>NYLETHER<br>CENE<br>E<br>DINE<br>DE<br>DINE<br>DENZENE<br>O(a) ANTHRACENE<br>E<br>THYLAMINE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 330<br>330<br>330<br>330<br>330<br>330<br>330<br>330 |                            |                |



(0) Page 4 Date 24-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 Accession: CSX TRANSPORTATION Client: 4365B Project Number: Project Name: Project Location: CSXT-GREENVILLE GREENVILLE, SC BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: ΤŤ OC Level: Sample Date/Time: 27-MAR-96 0945 002 Lab Id: Received Date: 29-MAR-96 Client Sample Id: DP 26 Rot Lmts: Units: Results: 0: Parameter: UG/KG UG/KG ND 330 DIPHENYLAMINE 1,2-DIPHENYLHYDRAZINE FLUORANTHENE ND 330 UG/KG ND 330 UG/KG ND 330 FLUORENE UG/KG UG/KG ND 330 HEXACHLOROBENZENE 330 HEXACHLOROBUTADIENE ND HEXACHLOROCYCLOPENTADIENE UG/KG ND 330 UG/KG UG/KG HEXACHLOROETHANE ND 330 INDENO(1,2,3-cd) PYRENE ND 330 ISOPHORONE UG/KG ND 330 ND 330 3-METHYLCHOLANTHRENE UG/KG 2-METHYLNAPHTHALENE UG/KG ND 330 UG/KG ND 330 NAPHTHALENE UG/KG ND 330 1-NAPHTHYLAMINE 2-NAPHTHYLAMINE UG/KG ND 330 UG/KG ND 330 2-NITROANILINE 3-NITROANILINE UG/KG ND 330 UG/KG UG/KG 4-NITROANILINE ND 330 NITROBENZENE ND 330 N-NITROSODIMETHYLAMINE UG/KG ND 330 N-NITROSODI-N-BUTYLAMINE UG/KG ND 330 N-NITROSODIPHENYLAMINE UG/KG ND 330 N-NITROSO-DI-N-PROPYLAMINE UG/KG ND 330 UG/KG ND 330 UG/KG UG/KG ND 330 ND 330 UG/KG ND 330

N-NITROSOPIPERIDINE PENTACHLOROBENZENE PENTACHLORONITROBENZENE (PCNB) PHENACETIN PHENANTHRENE UG/KG ND 330 UG/KG 2-PICOLINE ND 330 UG/KG PRONAMIDE ND 330 UG/KG ND PYRENE 330 1,2,4,5-TETRACHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/KG ND 330 UG/KG ND 330 2-FLUOROBIPHENYL %REC/SURR 55 30-115 %REC/SURR %REC/SURR NITROBENZENE-D5 45 23-120 57 TERPHENYL-D14 18-137 ANALYST INITIALS PL

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[0) Page 5 Date 24-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| LabId:003Sample Date/Time:27-MAR-961015Client Sample Id:DP 28Received Date:29-MAR-96Batch:ALS023Extraction Date:01-APR-96Blank:ADry Weight %:70Analysis Date:08-APR-96Parameter:Units:Results:Rpt Lmts:Q:ACENAPHTHENEUG/KGND330ACENAPHTHYLENEUG/KGND330ACENAPHTHYLENEUG/KGND330ACENAPHTHYLENEUG/KGND330ACENAPHTHYLENEUG/KGND330ACENAPHTHENYLUG/KGND330ANTHRACENEUG/KGND330BENZO(a) ANTHRACENEUG/KGND330BENZO(a) ANTHRACENEUG/KGND330BENZO(b) FLUORANTHENEUG/KGND330BENZO(b) FLUORANTHENEUG/KGND330BENZO(b) FLUORANTHENEUG/KGND330BENZO(k) ALCOHOLUG/KGND330BENZO(k) FLHORANTHENEUG/KGND330BENZO(k) FLHORANTHENEUG/KGND330BENZO(k) FLHOROTHOXY) METHANEUG/KGND330BENZO(k) FLHOROTHOXY) METHANEUG/KGND330BENZO(k) FLHOROTHOXY) METHANEUG/KGND330BENZO(k) FLHOROTHOXY) METHANEUG/KGND330BENZO(k) FLHOROTHOXY) METHANEUG/KGND330BENZO(k) FLHOROAPHTHALENEUG/KGND330 </th <th>Accession:<br/>Client:<br/>Project Number:<br/>Project Name:<br/>Project Location:<br/>Test:<br/>Analysis Method:<br/>Extraction Method:<br/>Matrix:<br/>QC Level:</th> <th>BN EXTRACTABLES<br/>8270 / SW-846,</th> <th>E<br/>5 (8270)<br/>3rd Edition,</th> <th></th> <th></th> <th></th> <th></th> <th></th> | Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | BN EXTRACTABLES<br>8270 / SW-846, | E<br>5 (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                    |                                                                                 |                                                      |       |     |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------|-------|-----|------|
| Blank: ADry Weight %:70Analysis Date:08-APR-96Parameter:Units:Results:Rpt Lmts:Q:ACENAPHTHENEUG/KGND330ACENAPHTHYLENEUG/KGND330ACETOPHENONEUG/KGND3304 - AMINOBIPHENYLUG/KGND330ANTHRACENEUG/KGND330BENZIDINEUG/KGND330BENZO (a) ANTHRACENEUG/KGND330BENZO (b) FLUORANTHENEUG/KGND330BENZO (c) PYRENEUG/KGND330BENZO (k) FLUORANTHENEUG/KGND330BENZO (k) HIANCENTUG/KGND330BIS (2 - CHLOROETHXL) ETHERUG/KGND330BIS (2 - CHLOROETHXL) ETHERUG/KGND330JIS (2 - CHLOROETHXL) ETHERUG/KGND330JIS (2 - CHLOROANHTHALATEUG/KGND330JIS (2 - CHLOROANHTHALENEUG/KGND330JIS (2 - CHLOROANHTHALENEUG/KGND330JIS (2 - CHLOROANHTHALENEUG/KG                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                   |                                                                                                                                                                                                                                                                                                                                  |                                                                                 |                                                      |       |     | 1015 |
| ACENAPHTHENEUG/KGND330ACENAPHTHYLENEUG/KGND330ACETOPHENONEUG/KGND330ACETOPHENONEUG/KGND330A-AMINOBIPHENYLUG/KGND330ANILINEUG/KGND330ANTHRACENEUG/KGND330BENZO(a) ANTHRACENEUG/KGND330BENZO(a) ANTHRACENEUG/KGND330BENZO(a) PYRENEUG/KGND330BENZO(a) PRENEUG/KGND330BENZO(a) FLUORANTHENEUG/KGND330BENZO(b) FLUORANTHENEUG/KGND330BENZO(k) FLUORANTHENEUG/KGND330BENZO(k) FLUORANTHENEUG/KGND330BENZO(k) FLUORANTHENEUG/KGND330BENZO(k) FLUORANTHENEUG/KGND330BIS (2 - CHLOROETHYL) ETHERUG/KGND330BIS (2 - CHLOROETHYL) ETHERUG/KGND330BIS (2 - CHLOROETHYL) PHENYLETHERUG/KGND330BIS (2 - CHLOROANTLINEUG/KGND330JUTYLBENZYLPHTHALATEUG/KGND330JUTYLBENZYLPHTHALATEUG/KGND330JUTYLBENZYLPHTHALENEUG/KGND330JUTYLBENZYLPHTHALENEUG/KGND330JUTYLBENZYLPHTHALENEUG/KGND330JUTYLBENZYLPHTHALENEUG/KGND330JUTYLBENZYLPHTHALENEUG/KG <t< td=""><td></td><td>Dry Weight %:</td><td>70</td><td></td><td></td><td></td><td></td><td></td></t<>                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Dry Weight %:                     | 70                                                                                                                                                                                                                                                                                                                               |                                                                                 |                                                      |       |     |      |
| ACENAPHTHYLENEUG/KGND330ACETOPHENONEUG/KGND330ACETOPHENONEUG/KGND330ANILINEUG/KGND330ANTHRACENEUG/KGND330BENZIDINEUG/KGND330BENZO(a) ANTHRACENEUG/KGND330BENZO(a) PYRENEUG/KGND330BENZO(a) PYRENEUG/KGND330BENZO(a) PYRENEUG/KGND330BENZO(b) FLUORANTHENEUG/KGND330BENZO(b) FLUORANTHENEUG/KGND330BENZO(c), h i PERYLENEUG/KGND330BENZO(k) FLUORANTHENEUG/KGND330BENZYL ALCOHOLUG/KGND330BIS (2 - CHLOROETHOXY) METHANEUG/KGND330BIS (2 - CHLOROETHOXY) METHANEUG/KGND330BIS (2 - CHLOROISOPROPYL) ETHERUG/KGND330BIS (2 - CHLOROISOPROPYL) ETHERUG/KGND330BIS (2 - CHLOROANLINEUG/KGND330JUTYLBENZYLPHTHALATEUG/KGND330JUTYLBENZYLPHTHALENEUG/KGND330JUTYLBENZYLPHTHALENEUG/KGND330J - CHLOROANPHTHALENEUG/KGND330J - CHLOROANPHTHALENEUG/KGND330J - CHLOROANPHTHALENEUG/KGND330J - CHLOROANPHTHALENEUG/KGND330J - CHLOROANPHTHALENEU                                                                                                                                                                                                                                                                                                                                                  | Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   | Units:                                                                                                                                                                                                                                                                                                                           | Results:                                                                        | Rpt                                                  | Lmts: | Q : |      |
| DIBENZOFURANUG/KGND3301,2-DICHLOROBENZENEUG/KGND3301,3-DICHLOROBENZENEUG/KGND3301,4-DICHLOROBENZENEUG/KGND3303,3'-DICHLOROBENZIDINEUG/KGND370DIETHYLPHTHALATEUG/KGND330P-DIMETHYLAMINOAZOBENZENEUG/KGND3307,12-DIMETHYLBENZO(a) ANTHRACENEUG/KGND330DIETHYLPHTHALATEUG/KGND3300IMETHYLPHTHALATEUG/KGND3302,4-DINITROTOLUENEUG/KGND3302,6-DINITROTOLUENEUG/KGND330DI-N-OCTYLPHTHALATEUG/KGND3300I-N-OCTYLPHTHALATEUG/KGND3300I-N-OCTYLPHTHALATEUG/KGND3300I-N-OCTYLPHTHALATEUG/KGND3300I-N-OCTYLPHTHALATEUG/KGND3300I-N-OCTYLPHTHALATEUG/KGND3300I-N-OCTYLPHTHALATEUG/KGND3300I-N-OCTYLPHTHALATEUG/KGND330                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (a) PYRENE<br>BENZO (b) FLUORANTHENE<br>BENZO (c) FLUORANTHENE<br>BENZO (c) FLUORANTHENE<br>BENZO (c) FLUORANTHENE<br>BENZO (c) FLUORANTHENE<br>BENZO (c) FLUORANTHENE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL) ETHER<br>BIS (2 - CHLOROETHOXY) METHANE<br>BIS (2 - CHLOROISOPROPYL) ETHER<br>BIS (2 - CHLOROAILINE<br>1 - CHLOROANILINE<br>1 - CHLORONAPHTHALENE<br>2 - CHLORONAPHTHALENE<br>4 - CHLOROPHENYL - PHENYLETHER<br>CHRYSENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, H) ANTHRACENE<br>1, 3 - DICHLOROBENZENE<br>1, 4 - DICHLOROBENZENE<br>3, 3 ' - DICHLOROBENZIDINE<br>DIETHYLPHTHALATE<br>P - DIMETHYLAMINOAZOBENZENE<br>7, 12 - DIMETHYLBENZO (a) ANTHRACENE<br>A - , A - DIMETHYLPHENETHYLAMINE<br>DIMETHYLPHTHALATE<br>DI - N - BUTYLPHTHALATE<br>2, 4 - DINITROTOLUENE |                                   | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 330<br>330<br>330<br>330<br>330<br>330<br>330<br>330 | D     |     |      |



[0) Page 6 Date 24-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSXT-GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: SOIL ΪĪ QC Level: Sample Date/Time: 27-MAR-96 1015 003 Lab Id: Received Date: 29-MAR-96 DP 28 Client Sample Id: Rpt Lmts: Q: Units: Results: Parameter: UG/KG ND 330 DIPHENYLAMINE UG/KG ND 330 1,2-DIPHENYLHYDRAZINE UG/KG ND 330 FLUORANTHENE UG/KG 330 ND FLUORENE 330 UG/KG ND HEXACHLOROBENZENE UG/KG UG/KG HEXACHLOROBUTADIENE 330 ND 330 ND HEXACHLOROCYCLOPENTADIENE UG/KG ND 330 HEXACHLOROETHANE INDENO(1,2,3-cd) PYRENE UG/KG ND 330 330 ISOPHORONE UG/KG ND UG/KG 330 3-METHYLCHOLANTHRENE ND 330 UG/KG ND 2-METHYLNAPHTHALENE UG/KG ND 330 NAPHTHALENE UG/KG ND 330 1-NAPHTHYLAMINE 2-NAPHTHYLAMINE UG/KG ND 330 UG/KG ND 330 2-NITROANILINE 330 3-NITROANILINE UG/KG ND UG/KG 330 ND 4-NITROANILINE UG/KG ND 330 NITROBENZENE UG/KG ND 330 N-NITROSODIMETHYLAMINE UG/KG ND 330 N-NITROSODI-N-BUTYLAMINE N-NITROSODIPHENYLAMINE UG/KG ND 330 UG/KG UG/KG 330 N-NITROSO-DI-N-PROPYLAMINE ND ND 330 N-NITROSOPIPERIDINE PENTACHLOROBENZENE UG/KG ND 330 ND 330 PENTACHLORONITROBENZENE (PCNB) UG/KG UG/KG ND 330 UG/KG ND 330 330 UG/KG ND ND 330 UG/KG UG/KG 330 ND

PHENACETIN PHENANTHRENE 2-PICOLINE PRONAMIDE PYRENE 1,2,4,5-TETRACHLOROBENZENE UG/KG ND 330 1,2,4 TRICHLOROBENZENE UG/KG ND 330 %REC/SURR 30-115 2-FLUOROBIPHENYL 61 %REC/SURR 50 23-120 NITROBENZENE-D5 18 - 137TERPHENYL-D14 %REC/SURR 68

INITIALS

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Comments:

ANALYST



Test:

Matrix:

Accession:

Client:

Matrix:

Lab Id:

Blank: A

Parameter:

QC Level:

(0) Page 7 Date 24-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 CSX TRANSPORTATION 4365B Project Number: CSXT-GREENVILLE Project Name: Project Location: GREENVILLE, SC Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL IΪ Sample Date/Time: 27-MAR-96 1045 004 29-MAR-96 Received Date: DP 29 Client Sample Id: 01-APR-96 Extraction Date: Batch: ALS023 Analysis Date: 04-APR-96 Dry Weight %: 64 Results: Rpt Lmts: Q: Units: ND 33000 UG/KG ACENAPHTHENE



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | IIG/KG                                             | ND                                     | 33000  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------|--------|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | ND                                     | 33000  |  |
| ACETOPHENONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    | ND                                     | 33000  |  |
| 4-AMINOBIPHENIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | ND                                     | 33000  |  |
| ANILINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                    |                                        | 33000  |  |
| ANTHRACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                    | ND                                     | 33000  |  |
| BENZIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG                                              | ND                                     | 33000  |  |
| BENZO (a) ANTHRACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG                                              | ND                                     | 33000  |  |
| BENZO(a) PYRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG                                              | ND                                     | 33000  |  |
| BENZO (b) FLUORANTHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/KG                                              | 62000                                  | 33000  |  |
| BENZO(q,h,i)PERYLENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG                                              | ND                                     | 33000  |  |
| BENZO (K) FLUORANTHENE <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/KG                                              | 72000                                  | 33000  |  |
| BENZYL ALCOHOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG                                              | ND                                     | 33000  |  |
| BIS (2-CHLOROETHYL) ETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG                                              | ND                                     | 33000  |  |
| BIS (2 - CHLOROETHOXY) METHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG                                              | ND                                     | 33000  |  |
| BIS (2 - CHLOROISOPROPYL) ETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG                                              | ND                                     | 33000  |  |
| BIS (2 - FTHYLHEXYL) PHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG                                              | ND                                     | 33000  |  |
| A - BROMOPHENYL - PHENYLETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ŪĠ/KĠ                                              | ND                                     | 33000  |  |
| DITVI BENZVI DETHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/KG                                              | ND                                     | 33000  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG                                              | ND                                     | 33000  |  |
| 1 CULOPONAPHTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/KG                                              | ND                                     | 33000  |  |
| 2 CHLORONA BUTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG                                              | ND                                     | 33000  |  |
| A CHLORONAL DHENVLETHER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                    | ND                                     | 33000  |  |
| ACENAPHTHYLENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (b) FLUORANTHENE<br>BENZO (c) FLUORANTHENE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL) ETHER<br>BIS (2 - CHLOROETHYL) ETHER<br>BIS (2 - CHLOROISOPROPYL) ETHER<br>BUTYLBENZYLPHTHALATE<br>4 - CHLORONAPHTHALENE<br>2 - CHLORONAPHTHALENE<br>2 - CHLORONAPHTHALENE<br>4 - CHLOROPHENYL - PHENYLETHER<br>CHRYSENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, J) ACRIDINE<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 4 - DICHLOROBENZIDINE<br>DIETHYLPHTHALATE<br>P - DIMETHYLAMINOAZOBENZENE<br>7, 12 - DIMETHYLBENZO (a) ANTHRACENE |                                                    | 53000 3                                | 33000  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | ND                                     | 33000  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    | ND                                     | 33000  |  |
| DIBENZ (A, J) ACKIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    | ND                                     | 33000  |  |
| DIBENZUFUKAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    | ND                                     | 33000  |  |
| 1, Z-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                    | ND                                     | 32000  |  |
| 1, 3-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                    |                                        | 22000  |  |
| 1,4-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                    | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 170000 |  |
| 3,3'-DICHLOROBENZIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |                                        | 22000  |  |
| DIETHYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/KG                                              |                                        | 33000  |  |
| P-DIMETHYLAMINOAZOBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND                                     | 33000  |  |
| 7,12-DIMETHYLBENZO(a)ANTHRACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG                                              | ND                                     | 33000  |  |
| A-,A-DIMETHYLPHENETHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UG/KG                                              | ND                                     | 33000  |  |
| DIMETHYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UG/KG                                              | ND                                     | 33000  |  |
| DI-N-BUTYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/KG                                              | ND                                     | 33000  |  |
| 2,4-DINITROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/KG                                              | ND                                     | 33000  |  |
| 2,6-DINITROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/KG                                              | ND                                     | 33000  |  |
| DIETHYLPHTHALAIE<br>P-DIMETHYLAMINOAZOBENZENE<br>7,12-DIMETHYLBENZO(a)ANTHRACENE<br>A-,A-DIMETHYLPHENETHYLAMINE<br>DIMETHYLPHTHALATE<br>DI-N-BUTYLPHTHALATE<br>2,4-DINITROTOLUENE<br>2,6-DINITROTOLUENE<br>DI-N-OCTYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG                                              | ND<br>ND<br>ND<br>ND                   | 33000  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                        |        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                        |        |  |

[0) Page 8 Date 24-Apr-96

### "FINAL REPORT FORMAT - SINGLE"

603602 Accession: Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSXT-GREENVILLE Project Location: GREENVILLE, SC Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: QC Level: ΤT 004 Sample Date/Time: 27-MAR-96 1045 Lab Id: Client Sample Id: DP 29 Received Date: 29-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: DIPHENYLAMINE UG/KG ND 33000 1,2-DIPHENYLHYDRAZINE UG/KG ND 33000 FLUORANTHENE UG/KG ND 33000 UG/KG FLUORENE ND 33000 HEXACHLOROBENZENE UG/KG ND 33000 UG/KG UG/KG HEXACHLOROBUTADIENE ND 33000 HEXACHLOROCYCLOPENTADIENE ND 33000 HEXACHLOROETHANE UG/KG ND 33000 INDENO(1,2,3-cd) PYRENE UG/KG ND 33000 ISOPHORONE UG/KG ND 33000 3-METHYLCHOLANTHRENE UG/KG ND 33000 2-METHYLNAPHTHALENE UG/KG ND 33000 UG/KG UG/KG NAPHTHALENE ND 33000 1-NAPHTHYLAMINE ND 33000 2-NAPHTHYLAMINE UG/KG ND 33000 2-NITROANILINE UG/KG ND 33000 3-NITROANILINE UG/KG ND 33000 4-NITROANILINE UG/KG ND 33000 NITROBENZENE UG/KG ND 33000 N-NITROSODIMETHYLAMINE UG/KG ND 33000 UG/KG N-NITROSODI-N-BUTYLAMINE ND 33000 N-NITROSODIPHENYLAMINE UG/KG ND 33000 N-NITROSO-DI-N-PROPYLAMINE UG/KG UG/KG ND 33000 N-NITROSOPIPERIDINE ND 33000 PENTACHLOROBENZENE UG/KG ND 33000 PENTACHLORONITROBENZENE (PCNB) UG/KG ND 33000 PHENACETIN UG/KG ND 33000 PHENANTHRENE UG/KG ND 33000 2-PICOLINE UG/KG ND33000 PRONAMIDE UG/KG ND 33000 UG/KG PYRENE ND 33000 1,2,4,5-TETRACHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/KG ND 33000 UG/KG ND 33000 2-FLUOROBIPHENYL %REC/SURR 30-115 D NITROBENZENE-D5 %REC/SURR D 23-120 TERPHENYL-D14 %REC/SURR D 18-137 ANALYST INITIALS ΡL

[0) Page 9 Date 24-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 Accession: CSX TRANSPORTATION Client: 4365B Project Number: CSXT-GREENVILLE Project Name: Project Location: GREENVILLE, SC BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: QC Level: ΙI 005 Sample Date/Time: 27-MAR-96 1105 Lab Id: Client Sample Id: DP 9 Received Date: 29-MAR-96 Batch: ALS023 Extraction Date: 01-APR-96 Dry Weight %: 85 04-APR-96 Blank: A Analysis Date: Units: Parameter: Results: Rpt Lmts: 0: 6700 ACENAPHTHENE UG/KG ND UG/KG ACENAPHTHYLENE · 7900 6700 UG/KG ACETOPHENONE ND 6700 UG/KG 4-AMINOBIPHENYL ND 6700 UG/KG ND ANILINE 6700 ANTHRACENE UG/KG ND 6700 BENZIDINE UG/KG ND 6700 UG/KG UG/KG BENZO (a) ANTHRACENE: 12000 6700 BENZO (a) PYRENE 20000 6700 BENZO (b) FLUORANTHENE UG/KG 14000 6700 BENZO (g, h, i) PERYLENE BENZO (k) FLUORANTHENE? UG/KG UG/KG 15000 6700 17000 6700 UG/KG BENZYL ALCOHOL ND 6700 BIS (2-CHLOROETHYL) ETHER UG/KG ND 6700 BIS (2 - CHLOROETHOXY) METHANE UG/KG ND 6700 UG/KG BIS (2-CHLOROISOPROPYL) ETHER 6700 ND BIS (2-ETHYLHEXYL) PHTHALATE UG/KG 6700 ND UG/KG UG/KG 4 - BROMOPHENYL - PHENYLETHER ND 6700 BUTYLBENZYLPHTHALATE ND 6700 4-CHLOROANILINE UG/KG ND 6700 1 - CHLORONAPHTHALENE UG/KG ND 6700 2 - CHLORONAPHTHALENE UG/KG ND 6700 UG/KG 4 - CHLOROPHENYL - PHENYLETHER ND 6700 CHRYSENE UG/KG 14000 6700 UG/KG UG/KG DIBENZO (A, H) ANTHRACENE ND 6700 DIBENZ(A, J) ACRIDINE ND 6700 DIBENZOFURAN UG/KG ND 6700 1,2-DICHLOROBENZENE UG/KG ND 6700 1,3-DICHLOROBENZENE UG/KG ND 6700 1,4-DICHLOROBENZENE UG/KG ND 6700 3,3'-DICHLOROBENZIDINE UG/KG ND 33000 UG/KG DIETHYLPHTHALATE ND 6700 UG/KG P-DIMETHYLAMINOAZOBENZENE ND 6700 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/KG ND 6700 A-, A-DIMETHYLPHENETHYLAMINE UG/KG UG/KG ND 6700 DIMETHYLPHTHALATE ND 6700 **DI-N-BUTYLPHTHALATE** UG/KG ND 6700 2,4-DINITROTOLUENE UG/KG ND 6700 2,6-DINITROTOLUENE UG/KG NÐ 6700 DI-N-OCTYLPHTHALATE UG/KG ND 6700



Client:

Test:

Matrix:

Lab Id:

[0) Page 10 Date 24-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603602 Accession: CSX TRANSPORTATION Project Number: Project Name: Project Location: 4365B CSXT-GREENVILLE GREENVILLE, SC BN EXTRACTABLES (8270) 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: SOIL ΙI QC Level: Sample Date/Time: 27-MAR-96 1105 005 Received Date: 29-MAR-96 Client Sample Id: DP 9 Units: Results: Rpt Lmts: Q: Parameter:

| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZINE<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENTADIENE<br>HEXACHLOROCYCLOPENTADIENE<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYRENE '<br>ISOPHORONE<br>3-METHYLCHOLANTHRENE<br>2-METHYLNAPHTHALENE<br>NAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROANILINE<br>N-NITROSODIMETHYLAMINE<br>N-NITROSODIMETHYLAMINE<br>N-NITROSODIPHENYLAMINE<br>N-NITROSOPIPERIDINE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBENZENE (PCNB)<br>PHENANTHRENE'<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE?<br>1,2,4,5-TETRACHLOROBENZENE<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>22000<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 6700<br>6700<br>6700<br>6700<br>6700<br>30-115<br>23-120<br>18-137 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--|
| ANALYST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | INITIALS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PL                                                                                              | TO-TO/                                                             |  |
| ANALYST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | INITIALS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ЪГ                                                                                              |                                                                    |  |

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Analysis Report

Analysis: Group of Single Wetchem

Accession: 603254 Accession:603254Client:CSX TRANSPORTATIONProject Number:4365BProject Name:CSX GREENVILLEProject Location:GREENVILLE, SCDepartment:WET CHEM

[0) Page 1 Date 25-Mar-96

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"FINAL REPORT FORMAT - MULTIPLE"

|    | Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>QcLevel: | 603254<br>CSX TRANSPORTATION<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>Group of Single We<br>II |         |     |         |        |     |
|----|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------|-----|---------|--------|-----|
|    | Parameter:                                                                                          | Unit:                                                                                                 | Result: | -   | R.L:    | Batch: | Q : |
| C. | lient ID: MW-1                                                                                      |                                                                                                       |         | Lab | ID: 001 |        |     |
|    | SULFATE (375.4)                                                                                     | MG/L                                                                                                  | ND      |     | 10      | SEW016 |     |
|    | Comments:                                                                                           |                                                                                                       |         |     |         |        |     |
| C. | lient ID: MW-3                                                                                      |                                                                                                       |         | Lab | ID: 004 |        |     |
|    | SULFATE (375.4)                                                                                     | MG/L                                                                                                  | 640     |     | 250     | SEW016 | +   |
|    | Comments:                                                                                           |                                                                                                       |         |     |         |        |     |
| C  | lient ID: MW-3D                                                                                     |                                                                                                       |         | Lab | ID: 005 |        |     |
|    | SULFATE (375.4)                                                                                     | MG/L                                                                                                  | 35 ′    |     | 20      | SEW016 | +   |
| )  | Comments:                                                                                           |                                                                                                       |         |     |         |        |     |
| C  | lient ID: MW-6                                                                                      |                                                                                                       |         | Lab | ID: 008 |        |     |
|    | SULFATE (375.4)                                                                                     | MG/L                                                                                                  | 160     |     | 50      | SEW016 | +   |
|    | Comments:                                                                                           |                                                                                                       |         |     |         |        |     |

(0) Page 2 Date 25-Mar-96

# "FINAL REPORT FORMAT - MULTIPLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test: | 603254<br>CSX TRANSPORTATION<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>Group of Single Wetchem |                |               |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------|---------------|
| Client ID:                                                                              | Lab Matrix:                                                                                          | Date/Time      | Date          |
|                                                                                         | ID:                                                                                                  | Sampled:       | Received:     |
| MW-1                                                                                    | 001 GROUNDWATER                                                                                      | 13-MAR-96 1520 | 14 - MAR - 96 |
| MW-3                                                                                    | 004 GROUNDWATER                                                                                      | 13-MAR-96 1425 | 14 - MAR - 96 |
| MW-3D                                                                                   | 005 GROUNDWATER                                                                                      | 13-MAR-96 1450 | 14 - MAR - 96 |
| MW-6                                                                                    | 008 GROUNDWATER                                                                                      | 13-MAR-96 1615 | 14 - MAR - 96 |

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Analysis Report

Analysis: SW 846 8260 TABLE SIX

603254 CSX TRANSPORTATION 4365B Accession: Client: Project Number: Project Name: Project Location: Department: CSX GREENVILLE GREENVILLE, SC ORGANIC/MS

[0) Page 1 Date 31-Mar-96

603254 Accession: Client: CSX TRANSPORTATION 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: GROUNDWATER QC Level: TT Lab Id: 001 Sample Date/Time: 13-MAR-96 1520 Client Sample Id: MW-1 Received Date: 14-MAR-96 Batch: MAW025 Extraction Date: N/A Blank: A Dry Weight %: N/A Analysis Date: 22-MAR-96 Parameter: Units: Results: Rpt Lmts: Q : BENZENE UG/L ND 250 BROMOBENZENE UG/L ND 250 UG/L UG/L BROMOCHLOROMETHANE ND 250 BROMODICHLOROMETHANE ND 250 BROMOFORM UG/L ND 250 BROMOMETHANE UG/L ND 250 CARBON TETRACHLORIDE UG/L ND 250 CHLOROBENZENE UG/L ND 250 CHLOROETHANE UG/L ND 250 CHLOROFORM UG/L ND 250 CHLOROMETHANE UG/L ND 250 2-CHLOROTOLUENE UG/L ND 250 UG/L UG/L 4 - CHLOROTOLUENE ND 250 CIS 1,2 DICHLOROETHYLENE ND 250 CHLORODIBROMOMETHANE UG/L ND 250 DIBROMOMETHANE UG/L ND 250 1,4-DICHLOROBENZENE UG/L ND 250 1, 3-DICHLOROBENZENE UG/L ND 250 1,2-DICHLOROBENZENE UG/L ND 250 DICHLORODIFLUOROMETHANE UG/L ND 250 1,1-DICHLOROETHANE UG/L ND 250 1,2-DICHLOROETHANE UG/L ND 250 UG/L UG/L 1,1-DICHLOROETHENE ND 250 1,3 DICHLOROPROPANE ND 250 2,2-DICHLOROPROPANE UG/L ND 250 1,2-DICHLOROPROPANE UG/L ND 250 CIS-1, 3-DICHLOROPROPENE UG/L ND 250 TRANS-1, 3-DICHLOROPROPENE ŪG/L ND 250 1,1 DICHLOROPROPENE UG/L ND 250 ETHYL BENZENE UG/L ND 250 HEXACHLOROBUTADIENE UG/L ND 250 ISOPROPYL BENZENE UG/L ND 250 P-ISOPROPYLTOLUENE UG/L ND 250 METHYLENE CHLORIDE UG/L ND 250 NAPHTHALENE · 🖙 UG/L 3800 250 N-BUTYL BENZENE UG/L ND 250 N-PROPYL BENZENE UG/L ND 250 SEC-BUTYL BENZENE UG/L ND 250 STYRENE UG/L ND 250 TERT-BUTYL BENZENE UG/L ND 250

"FINAL REPORT FORMAT - SINGLE"

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[0) Page 2 Date 31-Mar-96

## "FINAL REPORT FORMAT - SINGLE"

603254 Accession: Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A Matrix: GROUNDWATER QC Level: ΠI 001 Sample Date/Time: 13-MAR-96 1520 Lab Id: Client Sample Id: MW-1 Received Date: 14-MAR-96 Rpt Lmts: Q: Units: Results: Parameter: 1, 1, 1, 2 - TETRACHLOROETHANE 1, 1, 2, 2 - TETRACHLOROETHANE UG/L ND 250 UG/L ND 250 TETRACHLOROETHENE UG/L ND 250 UG/L 250 ND TOLUENE TRANS 1,2 DICHLOROETHYLENE UG/L ND 250 1,1,1-TRICHLOROETHANE UG/L ND 250 1, 1, 2-TRICHLOROETHANE UG/L ND 250 1,2,3 TRICHLOROBENZENE UG/L ND 250 1,2,4 TRICHLOROBENZENE UG/L ND 250 UG/L UG/L TRICHLOROETHENE 250 ND 250 TRICHLOROFLUOROMETHANE NÐ 1,2,3 TRICHLOROPROPANE UG/L ND 250 1,2,4-TRIMETHYLBENZENE UG/L ND 250 1,3,5-TRIMETHYLBENZENE UG/L ND 250 VINYL CHLORIDE UG/L 250 ND UG/L M, P-XYLENE ND 250 **O-XYLENE** UG/L ND 250 %REC/SURR DIBROMOFLUOROMETHANE 99 74-124 %REC/SURR **TOLUENE-D8** 101 61-128 BROMOFLUOROBENZENE %REC/SURR 96 65-138 ANALYST INITIALS LL

[0) Page 3 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A GROUNDWATER Matrix: OC Level: II 002 Sample Date/Time: 13-MAR-96 1700 Lab Id: 14-MAR-96 Client Sample Id: MW-2 Received Date: Batch: MAW025 Extraction Date: N/A Blank: A Dry Weight %: N/A Analysis Date: 22-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: UG/L UG/L ND 5 BENZENE BROMOBENZENE ND UG/L BROMOCHLOROMETHANE ND BROMODICHLOROMETHANE UG/L ND BROMOFORM UG/L ND UG/L ND BROMOMETHANE CARBON TETRACHLORIDE UG/L ND CHLOROBENZENE UG/L ND CHLOROETHANE UG/L ND UG/L CHLOROFORM ND CHLOROMETHANE UG/L ND 5 2-CHLOROTOLUENE UG/L ND 5 5 4 - CHLOROTOLUENE UG/L ND CIS 1,2 DICHLOROETHYLENE UG/L ND UG/L UG/L CHLORODIBROMOMETHANE ND DIBROMOMETHANE ND 1,4-DICHLOROBENZENE UG/L ND 1,3-DICHLOROBENZENE UG/L ND 1,2-DICHLOROBENZENE UG/L ND DICHLORODIFLUOROMETHANE UG/L ND 1,1-DICHLOROETHANE UG/L ND 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 1,3 DICHLOROPROPANE UG/L ND 2,2-DICHLOROPROPANE UG/L ND 1,2-DICHLOROPROPANE UG/L ND CIS-1, 3-DICHLOROPROPENE UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 1,1 DICHLOROPROPENE UG/L ND UG/L ETHYL BENZENE ND HEXACHLOROBUTADIENE UG/L ND UG/L ISOPROPYL BENZENE ND **P-ISOPROPYLTOLUENE** UG/L ND METHYLENE CHLORIDE UG/L ND NAPHTHALENE UG/L ND N-BUTYL BENZENE UG/L ND 5 5 N-PROPYL BENZENE UG/L ND UG/L SEC-BUTYL BENZENE ND 5 STYRENE UG/L ND TERT-BUTYL BENZENE 5 UG/L ND

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[0) Page 4 Date 31-Mar-96

"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                            | GREENVILLE, SC<br>SW 846 8260 TAB<br>8260 / SW-846,                                          | LE SIX                                                       | September 198                                                                   | 6 and Rev                                                                                   | . 1, July              | 1992. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------|-------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                         | 002<br>MW-2                                                                                  |                                                              | Sample Dat<br>Received D                                                        |                                                                                             | 13-MAR-96<br>14-MAR-96 | 1700  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                           |                                                                                              | Units:                                                       | Results:                                                                        | Rpt Lmt                                                                                     | s: Q:                  |       |
| 1,1,1,2,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,1,2-TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>1,2,4 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,3 TRICHLOROPRC<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>LANE<br>LANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE<br>ZENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |                        |       |

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 5 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A GROUNDWATER Matrix: QC Level: II 003 Sample Date/Time: Lab Id: 13-MAR-96 1700 Client Sample Id: MW-2 DUP Received Date: 14-MAR-96 Batch: MAW025 Extraction Date: N/A Blank: A Dry Weight %: N/A 22-MAR-96 Analysis Date: Parameter: Units: Results: Rpt Lmts: Q : BENZENE UG/L ND 5 BROMOBENZENE UG/L ND 5 5 5 BROMOCHLOROMETHANE UG/L ND BROMODICHLOROMETHANE UG/L ND BROMOFORM UG/L ND 5 5 5 BROMOMETHANE UG/L ND CARBON TETRACHLORIDE UG/L ND UG/Ĺ CHLOROBENZENE 5 ND CHLOROETHANE UG/L ND CHLOROFORM UG/L ND CHLOROMETHANE UG/L ND 2 - CHLOROTOLUENE UG/L ND UG/L 4 - CHLOROTOLUENE ND CIS 1,2 DICHLOROETHYLENE UG/L ND CHLORODIBROMOMETHANE UC/L ND DIBROMOMETHANE UG/L ND UG/L UG/L 1,4-DICHLOROBENZENE ND 1,3-DICHLOROBENZENE ND 1,2-DICHLOROBENZENE UG/L ND DICHLORODIFLUOROMETHANE UG/L ND 1,1-DICHLOROETHANE UG/L ND 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 1,3 DICHLOROPROPANE ND UG/L 2,2-DICHLOROPROPANE UG/L ND 1,2-DICHLOROPROPANE UG/L ND ŪĠ/L UG/L CIS-1, 3-DICHLOROPROPENE ND TRANS-1, 3-DICHLOROPROPENE NÐ 1,1 DICHLOROPROPENE UG/L ND UG/L ETHYL BENZENE ND HEXACHLOROBUTADIENE UG/L ND 5555555 ISOPROPYL BENZENE UG/L ND P-ISOPROPYLTOLUENE METHYLENE CHLORIDE UG/L NÐ UG/L ND NAPHTHALENE UG/L ND N-BUTYL BENZENE UG/L ND N-PROPYL BENZENE UG/L ND UG/L SEC-BUTYL BENZENE 5 ND STYRENE UG/L 5 5 ND TERT-BUTYL BENZENE UG/L ND

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| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                            | 603254<br>CSX TRANSPORTAT:<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>SW 846 8260 TAB<br>8260 / SW-846, SN/A<br>GROUNDWATER<br>II | LE SIX                                                       | September 198                                                                   | 6 and Re                                                                                    | v. 1,          | July         | 1992.       |
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                         | 003<br>MW-2 DUP                                                                                                                        |                                                              | Sample Dat<br>Received D                                                        |                                                                                             | 13-MA<br>14-MA |              | 1700        |
| Parameter:                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                        | Units:                                                       | Results:                                                                        | Rpt Lm                                                                                      | ts:            | Q:           |             |
| 1,1,1,2,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,4 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE<br>ZENE                                                    | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |                |              |             |

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#### 603254 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A GROUNDWATER Matrix: II OC Level: 004 Sample Date/Time: 13-MAR-96 1425 Lab Id: Received Date: 14-MAR-96 Client Sample Id: MW-3 Extraction Date: N/A Batch: MAW025 Dry Weight %: N/A Analysis Date: 22-MAR-96 Blank: A Units: Results: Parameter: Rpt Lmts: Q: UG/L 160 5 BENZÈNE 5 BROMOBENZENE UG/L ND 5 BROMOCHLOROMETHANE UG/L ND UG/L ໞຩຆຆຆຆຆຆຆຆຆຆຆຆຆຆຆຆຆຆ BROMODICHLOROMETHANE ND UG/L ND BROMOFORM ND UG/L BROMOMETHANE CARBON TETRACHLORIDE UG/L ND CHLOROBENZENE UG/L ND CHLOROETHANE UG/L ND CHLOROFORM UG/L ND UG/L CHLOROMETHANE ND 2 - CHLOROTOLUENE UG/L ND UG/L ND 4 - CHLOROTOLUENE CIS 1,2 DICHLOROETHYLENE UG/L ND UG/L CHLORODIBROMOMETHANE ND DIBROMOMETHANE UG/L ND 1,4-DICHLOROBENZENE UG/L ND 1,3-DICHLOROBENZENE UG/L ND 1,2-DICHLOROBENZENE UG/L ND DICHLORODIFLUOROMETHANE UG/L ND UG/L ND 1, 1-DICHLOROETHANE 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 1,3 DICHLOROPROPANE UG/L ND UG/L 2, 2-DICHLOROPROPANE ND 1,2-DICHLOROPROPANE UG/L ND CIS-1, 3-DICHLOROPROPENE UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 5 1,1 DICHLOROPROPENE UG/L ND 5 UG/L 100 ETHYL BENZENE 5 HEXACHLOROBUTADIENE UG/L ND ISOPROPYL BENZENE UG/L 555 ND P-ISOPROPYLTOLUENE UG/L ND METHYLENE CHLORIDE UG/L ND UG/L 15000 500 NAPHTHALENE N-BUTYL BENZENE UG/L ND 5 UG/L UG/L 55 N-PROPYL BENZENE ND SEC-BUTYL BENZENE ND STYRENE 爷 UG/L 50 ٠. 5 5 TERT-BUTYL BENZENE ND UG/L

"FINAL REPORT FORMAT - SINGLE"

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------|--------------|----------------|
| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                   | SW 846 8260 TABL<br>8260 / SW-846, 3                                          | E SIX                                                        | eptember 1986                                                                                                 | and Rev                                                                                     | r. 1,          | July         | 1 <b>992</b> . |
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                | 004<br>MW-3                                                                   |                                                              | Sample Date<br>Received Da                                                                                    |                                                                                             | 13-MA<br>14-MA |              | 1425           |
| Parameter:                                                                                                                                                                                                                                                                                                                                                  |                                                                               | Units:                                                       | Results:                                                                                                      | Rpt Lmt                                                                                     | :s:            | Q:           |                |
| 1,1,1,2,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,4 TRICHLOROBEN<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMET<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>DIBROMOFLUOROMETHA<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>YHANE<br>PPANE<br>ZENE<br>ZENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>140<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>50<br>17<br>ND<br>100<br>48<br>105<br>106<br>103<br>LL | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |                |              |                |

Comments:

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"FINAL REPORT FORMAT - SINGLE"

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| Accession:<br>Client:<br>Project Number:<br>Project Nome:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CSX GREENVILLE<br>GREENVILLE, SC<br>SW 846 8260 TAE<br>8260 / SW-846 | BLE STX                                                      | September 198                                                                      | 86 and Re                                                                                      | ev. 1,      | July                 | 1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 005<br>MW-3D                                                         |                                                              | Sample Dat<br>Received I                                                           | ce/Time:<br>Date:                                                                              |             | IAR - 96<br>IAR - 96 | 1450  |
| Batch: MAW025<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Dry Weight %:                                                        | N/A                                                          | Extractior<br>Analysis I                                                           |                                                                                                | N/A<br>22-M | AR-96                |       |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                      | Units:                                                       | Results:                                                                           | Rpt Lm                                                                                         | ts:         | Q:                   |       |
| BENZENE<br>BROMOBENZENE<br>BROMOCHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMOMETHANE<br>CARBON TETRACHLORID<br>CHLOROBENZENE<br>CHLOROFORM<br>CHLOROFORM<br>CHLOROMETHANE<br>2 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>CIS 1,2 DICHLOROETHANE<br>DIBROMOMETHANE<br>1,4 - DICHLOROBENZENE<br>1,3 - DICHLOROBENZENE<br>1,2 - DICHLOROBENZENE<br>1,2 - DICHLOROBENZENE<br>1,2 - DICHLOROBENZENE<br>1,2 - DICHLOROBENZENE<br>1,2 - DICHLOROBENZENE<br>2,2 - DICHLOROETHANE<br>1,1 - DICHLOROETHANE<br>1,2 - DICHLOROETHANE<br>2,2 - DICHLOROETHANE<br>1,2 - DICHLOROPENPOPANE<br>2,2 - DICHLOROPENPOPANE<br>2,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - D | JE<br>DE<br>IYLENE<br>JE<br>HANE<br>PENE<br>ROPENE                   | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | 1100<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 1000<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |             |                      |       |

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[0) Page 10 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: GROUNDWATER QC Level: ΙI Lab Id: 005 Sample Date/Time: 13-MAR-96 1450 Client Sample Id: MW-3D Received Date: 14-MAR-96 Parameter: Units: Results: Rpt Lmts: 0: 1, 1, 1, 2 - TETRACHLOROETHANE 1, 1, 2, 2 - TETRACHLOROETHANE TETRACHLOROETHENE UG/L ND 5 UG/L ND 5 UG/L ND 5 TOLUENE UG/L 160 5 5 DICHLOROETHYLENE TRANS 1,2 UG/L UG/L ND 1,1,1-TRICHLOROETHANE ND 1, 1, 2-TRICHLOROETHANE UG/L ND 1,2,3 TRICHLOROBENZENE UG/L ND 1,2,4 TRICHLOROBENZENE UG/L ND TRICHLOROETHENE UG/L ND TRICHLOROFLUOROMETHANE UG/L ND 1,2,3 TRICHLOROPROPANE UG/L ND 1,2,4-TRIMETHYLBENZENE 1,3,5-TRIMETHYLBENZENE UG/L 82 -24 UG/L 24 VINYL CHLORIDE UG/L ND M, P-XYLENE ' UG/L ~ 210<sup>\*r</sup> **O-XYLENE** UG/L DIBROMOFLUOROMETHANE 120 5 %REC/SURR 103 74-124 TOLUENE - D8 %REC/SURR
%REC/SURR 106 61-128 BROMOFLUOROBENZENE 99 65-138 ANALYST INITIALS LL

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 11 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: GROUNDWATER OC Level: II Lab Id: 006 Sample Date/Time: 13-MAR-96 1550 Client Sample Id: MW-4 Received Date: 14-MAR-96 Batch: MAW025 Extraction Date: N/A Blank: B Dry Weight %: N/A Analysis Date: 22-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: BENZENE UG/L ND 5 BROMOBENZENE ŪG/L ND 5 BROMOCHLOROMETHANE UG/L ND 55555555 BROMODICHLOROMETHANE UG/L ND BROMOFORM UG/L ND BROMOMETHANE UG/L ND CARBON TETRACHLORIDE UG/L ND CHLOROBENZENE UG/L ND CHLOROETHANE UG/L ND 5 5 5 5 5 CHLOROFORM UG/L ND CHLOROMETHANE UG/L ND 2-CHLOROTOLUENE UG/L ND 4 - CHLOROTOLUENE UG/L ND 5 CIS 1,2 DICHLOROETHYLENE UG/L ND 5 CHLORODIBROMOMETHANE UG/L ND 5 DIBROMOMETHANE UG/L ND 5 5 1,4-DICHLOROBENZENE UG/L ND 1,3-DICHLOROBENZENE UG/L ND กงกระกรรร 1,2-DICHLOROBENZENE UG/L ND DICHLORODIFLUOROMETHANE UG/L ND 1,1-DICHLOROETHANE ŬG/L UG/L ND 1,2-DICHLOROETHANE ND 1,1-DICHLOROETHENE UG/L ND 1,3 DICHLOROPROPANE UG/L NÐ 2,2-DICHLOROPROPANE UG/L ND 1,2-DICHLOROPROPANE UG/L ND CIS-1,3-DICHLOROPROPENE UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 1,1 DICHLOROPROPENE UG/L ND รรรรรรรรรรร ETHYL BENZENE UG/L ND HEXACHLOROBUTADIENE UG/L UG/L ND ISOPROPYL BENZENE ND P-ISOPROPYLTOLUENE UG/L ND METHYLENE CHLORIDE UG/L ND NAPHTHALENE UG/L ND N-BUTYL BENZENE UG/L ND N-PROPYL BENZENE UG/L ND SEC-BUTYL BENZENE UG/L ND STYRENE UG/L ND ŝ TERT-BUTYL BENZENE UG/L ND 5

Client:

Test:

Matrix: QC Level:

Lab Id:

TOLUENE

TRANS 1,2

1,2,4 TRICHLOROBENZENE TRICHLOROETHENE

TRICHLOROFLUOROMETHANE

1,2,3 TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE

1,3,5-TRIMETHYLBENZENE

DIBROMOFLUOROMETHANE

BROMOFLUOROBENZENE

VINYL CHLORIDE

M, P-XYLENE

**TOLUENE-D8** 

O-XYLENE

ANALYST

Parameter:

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61-128

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(0) Page 12 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Project Number: 4365B Project Name: Project Location: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A GROUNDWATER ΙI 006 Sample Date/Time: 13-MAR-96 1550 Client Sample Id: MW-4 Received Date: 14-MAR-96 Units: Results: Rpt Lmts: Q: 1, 1, 1, 2-TETRACHLOROETHANE UG/L ND 5 1, 1, 2, 2 - TETRACHLOROETHANE TETRACHLOROETHENE UG/L ND 5 UG/L ND 5 5 5 UG/L ND DICHLOROETHYLENE UG/L ND 1, 1, 1-TRICHLOROETHANE UG/L 5 ND 1, 1, 2-TRICHLOROETHANE UG/L ND 5 1,2,3 TRICHLOROBENZENE ŪG/L ND 5

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UG/L

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Comments:

Date 31-Mar-96

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 13

Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: GROUNDWATER QC Level: ΙI Lab Id: 007 Sample Date/Time: 13-MAR-96 1720 Client Sample Id: MW-5 Received Date: -14 - MAR - 96 Batch: MAW025 Extraction Date: N/A Blank: B Dry Weight %: N/A Analysis Date: 22-MAR-96 Parameter: Units: Results: Rpt Lmts: 0: BENZENE UG/L ND 5 BROMOBENZENE UG/L ND ດດາດຈາດຄາຍຄາຍຄາຍເປັນ UG/L UG/L BROMOCHLOROMETHANE ND BROMODICHLOROMETHANE ND BROMOFORM UG/L ND BROMOMETHANE UG/L ND CARBON TETRACHLORIDE UG/L UG/L ND CHLOROBENZENE ND CHLOROETHANE UG/L ND CHLOROFORM UG/L ND CHLOROMETHANE UG/L ND 2 - CHLOROTOLUENE UG/L ND 4 - CHLOROTOLUENE UG/L ND CIS 1,2 DICHLOROETHYLENE UG/L ND CHLORODIBROMOMETHANE UG/L ND DIBROMOMETHANE UG/L ND 1,4-DICHLOROBENZENE UG/L ND 1,3-DICHLOROBENZENE UG/L ND 1,2-DICHLOROBENZENE UG/L ND DICHLORODIFLUOROMETHANE UG/L UG/L ND 1,1-DICHLOROETHANE ND 555 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 1,3 DICHLOROPROPANE UG/L 5 ND UG/L ND UG/L ND ND



(0) Page 14 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: 4365B Project Number: Project Name: Project Location: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Test: Analysis Method: Extraction Method: GROUNDWATER Matrix: ΙΙ QC Level: Lab Id: 007 Sample Date/Time: 13-MAR-96 1720 Client Sample Id: MW-5 Received Date: 14-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: 1, 1, 1, 2 - TETRACHLOROETHANE 1, 1, 2, 2 - TETRACHLOROETHANE UG/L ND 5 UG/L 5 5 ND TETRACHLOROETHENE UG/L ND TOLUENE UG/L ND 5 5 5 5 5 5 TRANS 1,2 DICHLOROETHYLENE UG/L ND 1,1,1-TRICHLOROETHANE UG/L ND 1, 1, 2-TRICHLOROETHANE UG/L ND 1,2,3 TRICHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/L 5 ND UG/L ND 5 TRICHLOROETHENE UG/L ND 5 5 5 TRICHLOROFLUOROMETHANE UG/L ND 1,2,3 TRICHLOROPROPANE UG/L ND 1,2,4-TRIMETHYLBENZENE UG/L 5 ND 1,3,5-TRIMETHYLBENZENE UG/L ND 5 VINYL CHLORIDE UG/L ND 5 M, P-XYLENE UG/L ND 5 **O-XYLENE** UG/L ND 5 %REC/SURR
%REC/SURR DIBROMOFLUOROMETHANE 108 74-124 TOLUENE-D8 100 61-128 BROMOFLUOROBENZENE %REC/SURR 103 65-138 ANALYST

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ANALYTICAL TECHNOLOGIES, INC.

[0) Page 15 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A GROUNDWATER Matrix: QC Level: II Lab Id: 008 Sample Date/Time: 13-MAR-96 1615 Client Sample Id: MW-6 Received Date: 14-MAR-96 Batch: MAW025 Extraction Date: N/A Blank: B Dry Weight %: N/A Analysis Date: 22-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: BENZENE UG/L ND 5 BROMOBENZENE UG/L ND 55555 BROMOCHLOROMETHANE UG/L ND BROMODICHLOROMETHANE ŬG/L ND BROMOFORM UG/L ND BROMOMETHANE UG/L ND CARBON TETRACHLORIDE UG/L ND **ม ม ม ม ม ม** ม CHLOROBENZENE UG/L ND CHLOROETHANE UG/L ND CHLOROFORM UG/L ND CHLOROMETHANE UG/L ND 2 - CHLOROTOLUENE UG/L ND 4 - CHLOROTOLUENE UG/L ND 5 5 CIS 1,2 DICHLOROETHYLENE UG/L ND CHLORODIBROMOMETHANE UG/L ND 5 DIBROMOMETHANE UG/L 5 5 5 ND 1,4-DICHLOROBENZENE UG/L ND 1,3-DICHLOROBENZENE UG/L ND 5555555 1,2-DICHLOROBENZENE UG/L ND DICHLORODIFLUOROMETHANE UG/L ND 1,1-DICHLOROETHANE UG/L ND 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 1,3 DICHLOROPROPANE UG/L ND 5 5 5 2,2-DICHLOROPROPANE UG/L ND 1,2-DICHLOROPROPANE UG/L ND CIS-1, 3-DICHLOROPROPENE 5 5 UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 1,1 DICHLOROPROPENE UG/L ND 5 ETHYL BENZENE UG/L ND 5 HEXACHLOROBUTADIENE UG/L ND 5 5 ISOPROPYL BENZENE UG/L ND P-ISOPROPYLTOLUENE UG/L ND 5 METHYLENE CHLORIDE UG/L 5 ND :NAPHTHALENE 🗢 UG/L 390 74 50 N-BUTYL BENZENE UG/L 5 ND N-PROPYL BENZENE UG/L 55 ND SEC-BUTYL BENZENE UG/L ND STYRENE UG/L 5 ND TERT-BUTYL BENZENE UG/L ND 5

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[0) Page 16 Date 31-Mar-96

"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                       | SW 846 8260 TAB<br>8260 / SW-846,                                           | LE SIX                                                       | September 198                                                                                                                                           | 6 and Re                                                                                    | v. l,          | July               | 1992. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------|--------------------|-------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                    | 008<br>MW-6                                                                 |                                                              | Sample Date<br>Received Da                                                                                                                              | e/Time:<br>ate:                                                                             | 13-MA<br>14-MA | AR - 96<br>AR - 96 | 1615  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                      |                                                                             | Units:                                                       | Results:                                                                                                                                                | Rpt Lm                                                                                      | ts:            | Q :                |       |
| 1,1,1,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2-TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMETT<br>1,2,3 TRICHLOROPRO<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>DIBROMOFLUOROMETHAN<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>8<br>ND<br>ND<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |                |                    |       |

[0] Page 17 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A GROUNDWATER Matrix: QC Level: ΙI Lab Id: 009 Sample Date/Time: 13-MAR-96 0815 Client Sample Id: MW-7 Received Date: 14-MAR-96 Batch: MAW025 Extraction Date: N/A Blank: A Dry Weight %: N/A Analysis Date: 22-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: BENZENE UG/L 680 500 BROMOBENZENE UG/L ND 500 BROMOCHLOROMETHANE UG/L ND 500 BROMODICHLOROMETHANE UG/L ND 500 BROMOFORM UG/L ND 500 BROMOMETHANE UG/L UG/L ND 500 CARBON TETRACHLORIDE ND 500 CHLOROBENZENE UG/L ND 500 CHLOROETHANE UG/L ND 500 CHLOROFORM UG/L ND 500 CHLOROMETHANE UG/L NÐ 500 2 - CHLOROTOLUENE UG/L ND 500 4 - CHLOROTOLUENE UG/L ND 500 CIS 1,2 DICHLOROETHYLENE UG/L ND 500 CHLORODIBROMOMETHANE UG/L ND 500 DIBROMOMETHANE UG/L ND 500 1,4-DICHLOROBENZENE UG/L ND 500 1,3-DICHLOROBENZENE UG/L ND 500 1,2-DICHLOROBENZENE UG/L ND 500 DICHLORODIFLUOROMETHANE UG/L ND 500 1,1-DICHLOROETHANE UG/L ND 500 1,2-DICHLOROETHANE UG/L ND 500 1,1-DICHLOROETHENE UG/L ND 500 1,3 DICHLOROPROPANE UG/L ND 500 2,2-DICHLOROPROPANE UG/L ND 500 1,2-DICHLOROPROPANE UG/L ND 500 CIS-1, 3-DICHLOROPROPENE UG/L ND 500 TRANS-1, 3-DICHLOROPROPENE UG/L ND 500 1,1 DICHLOROPROPENE UG/L ND 500 ETHYL BENZENE UG/L ND 500 HEXACHLOROBUTADIENE UG/L ND 500 ISOPROPYL BENZENE UG/L ND 500 P-ISOPROPYLTOLUENE UG/L UG/L ND 500 METHYLENE CHLORIDE ND 500 NAPHTHALENE -UG/L 2400 500 N-BUTYL BENZENE UG/L ND 500 N-PROPYL BENZENE UG/L ND 500 SEC-BUTYL BENZENE UG/L ND 500 STYRENE UG/L ND 500 TERT-BUTYL BENZENE

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"FINAL REPORT FORMAT - SINGLE"

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(0) Page 18 Date 31-Mar-96

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                  | SW 846 8260 TABI<br>8260 / SW-846, 3                                                       | JE SIX                                                       | September 1986                                                                  | 5 and Rev                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7. 1, July             | - 1992. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                               | 009<br>MW-7                                                                                |                                                              | Sample Date<br>Received Da                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 13-MAR-96<br>14-MAR-96 |         |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                 |                                                                                            | Units:                                                       | Results:                                                                        | Rpt. Lmt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | s: Q:                  |         |
| 1,1,1,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>1,2,4 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,3 TRICHLOROPRO<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>DIBROMOFLUOROMETHA<br>TOLUENE - D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE<br>ZENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500<br>500 |                        |         |

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[0) Page 19 Date 31-Mar-96

"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SW 846 8260 TA<br>8260 / SW-846,                                                         | BLE SIX<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                 | September<br>September                                                          | 1986 and Re<br>1986 and Re                                   | ev. 1, July<br>ev. 1, July     | 7 1992.<br>7 1992. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------|--------------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 010<br>DP1A                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                 | Date/Time:<br>ed Date:                                       | 12-MAR-96<br>14-MAR-96         |                    |
| Batch: MAS026<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Dry Weight %:                                                                            | 83                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 | ion Date:<br>is Date:                                        | 25 - MAR - 96<br>25 - MAR - 96 |                    |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                          | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Results:                                                                        | : Rpt Ln                                                     | nts: Q:                        |                    |
| BENZENE<br>BROMOBENZENE<br>BROMOCHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMOFORM<br>BROMOMETHANE<br>CARBON TETRACHLORI<br>CHLOROBENZENE<br>CHLOROETHANE<br>CHLOROFORM<br>CHLOROFORM<br>CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>CIS 1,2 DICHLOROET<br>CHLORODIBROMOMETHANE<br>1,4 - DICHLOROBENZEN<br>1,3 - DICHLOROBENZEN<br>1,2 - DICHLOROBENZEN<br>1,2 - DICHLOROBENZEN<br>1,2 - DICHLOROBENZEN<br>1,2 - DICHLOROETHANE<br>1,2 - DICHLOROETHANE<br>1,2 - DICHLOROETHANE<br>1,2 - DICHLOROETHANE<br>1,2 - DICHLOROETHANE<br>1,2 - DICHLOROETHANE<br>1,2 - DICHLOROPENPAN<br>2,2 - DICHLOROPROPAN<br>2,2 - DICHLOROPROPAN<br>1,2 - DICHLOROPROPAN<br>2,2 - DICHLOROPROPAN<br>1,2 - DICHLOROPROPA | NE<br>DE<br>HYLENE<br>NE<br>E<br>E<br>E<br>THANE<br>E<br>E<br>OPENE<br>PROPENE<br>E<br>E | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 1200<br>1200<br>1200<br>1200<br>1200<br>1200<br>1200<br>1200 |                                |                    |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                   | 603254<br>CSX TRANSPORTAT<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>SW 846 8260 TAE<br>8260 / SW-846,<br>8260 / SW-846,<br>SOIL<br>II | BLE SIX<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | September 198<br>September 198                                                  | 36 and Rev.<br>36 and Rev.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1, July 1992.<br>1, July 1992. |
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 010<br>DP1A                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sample Dat<br>Received I                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -MAR-96 0950<br>-MAR-96        |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                             | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Results:                                                                        | Rpt Lmts:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Q:                             |
| 1,1,1,2-TETRACHLOROETHANE<br>1,1,2,2-TETRACHLOROETHANE<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOROETHYLENE<br>1,1,1-TRICHLOROETHANE<br>1,2,3 TRICHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMETHANE<br>1,2,3 TRICHLOROPROPANE<br>1,2,4 TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>VINYL CHLORIDE<br>M,P-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST |                                                                                                                                             | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>VG/SURR<br>%<br>REC/SURR<br>%<br>NTINITIALS | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ 1200 \\ $ |                                |

ANALYTICAL TECHNOLOGIES, INC.

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Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" 603254 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A SOIL Matrix: QC Level: II Lab Id: 011 Sample Date/Time: 13-MAR-96 0900 Client Sample Id: **DP14** Received Date: 14-MAR-96 Batch: MAS025 Extraction Date: N/A Dry Weight %: 75 Blank: B 22-MAR-96 Analysis Date: Parameter: Units: Results: Rpt Lmts: Q: 7 UG/KG BENZENE ND BROMOBENZENE UG/KG ND 7 BROMOCHLOROMETHANE 7 UG/KG ND 7 BROMODICHLOROMETHANE UG/KG ND BROMOFORM UG/KG ND 7 UG/KG 7 BROMOMETHANE ND UG/KG UG/KG CARBON TETRACHLORIDE ND 7 CHLOROBENZENE 7 ND 7 CHLOROETHANE UG/KG ND UG/KG UG/KG CHLOROFORM ND 7 7 CHLOROMETHANE ND 2-CHLOROTOLUENE UG/KG ND 7 4 - CHLOROTOLUENE 7 7 UG/KG NÐ CIS 1,2 DICHLOROETHYLENE UG/KG ND CHLORODIBROMOMETHANE UG/KG 7 ND ż DIBROMOMETHANE UG/KG ND UG/KG UG/KG 7 7 1.4-DICHLOROBENZENE ND 1,3-DICHLOROBENZENE ND 1,2-DICHLOROBENZENE UG/KG 7 ND DICHLORODIFLUOROMETHANE UG/KG 7 ND 7 1,1-DICHLOROETHANE UG/KG ND 1,2-DICHLOROETHANE UG/KG ND 7 1,1-DICHLOROETHENE 7 UG/KG ND 1,3 DICHLOROPROPANE UG/KG ND 7 2,2-DICHLOROPROPANE UG/KG 7 7 ND 1,2-DICHLOROPROPANE UG/KG ND 7 7 CIS-1, 3-DICHLOROPROPENE UG/KG ND TRANS-1, 3-DICHLOROPROPENE UG/KG ND 1,1 DICHLOROPROPENE UG/KG 7 ND ETHYL BENZENE 7 7 7 UG/KG ND HEXACHLOROBUTADIENE UG/KG ND UG/KG ISOPROPYL BENZENE ND P-ISOPROPYLTOLUENE UG/KG ND 7 METHYLENE CHLORIDE UG/KG UG/KG 7 ND 7 NAPHTHALENE ND N-BUTYL BENZENE UG/KG 7 ND N-PROPYL BENZENE 7 UG/KG ND 7 SEC-BUTYL BENZENE UG/KG ND UG/KG STYRENE ND 7 TERT-BUTYL BENZENE 7 UG/KG ND

[0) Page 22 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Test: Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: II Lab Id: 011 Sample Date/Time: 13-MAR-96 0900 Client Sample Id: DP14 Received Date: 14 - MAR - 96 Parameter: Units: Results: Rpt Lmts: 0: 1, 1, 1, 2 - TETRACHLOROETHANE 1, 1, 2, 2 - TETRACHLOROETHANE UG/KG ND 7 UG/KG UG/KG ND 7 TETRACHLOROETHENE 7 ND TOLUENE UG/KG 7 ND TRANS 1,2 DICHLOROETHYLENE 1,1,1-TRICHLOROETHANE UG/KG ND 7 UG/KG ND 777 1, 1, 2-TRICHLOROETHANE UG/KG ND 1,2,3 TRICHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/KG ND UG/KG UG/KG 7 7 ND TRICHLOROETHENE ND TRICHLOROFLUOROMETHANE UG/KG ND 7 1,2,3 TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE UG/KG UG/KG 7 ND ND 7 1,3,5-TRIMETHYLBENZENE UG/KG ND 7 VINYL CHLORIDE UG/KG ND 7 M, P-XYLENE UG/KG ND 7 **O-XYLENE** UG/KG 7 ND HEPTANE UG/KG ND 7 ISOPROPYL ACETATE METHYL CYCLOHEXANE PROPYL ACETATE UG/KG UG/KG ND 27 ND 13 UG/KG ND 27 %REC/SURR
%REC/SURR DIBROMOFLUOROMETHANE 100 80-120 TOLUENE-D8 102 81-117 BROMOFLUOROBENZENE %REC/SURR 102 74-121 ANALYST

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[0] Page 23 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" 603254 Accession: CSX TRANSPORTATION Client: 4365B Project Number: CSX GREENVILLE Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: SOIL ΙI OC Level: Sample Date/Time: 13-MAR-96 1020 012 Lab Id: Received Date: 14-MAR-96 Client Sample Id: DP18 Extraction Date: N/A Batch: MAS025 22-MAR-96 Dry Weight %: 83 Analysis Date: Blank: B Rpt Lmts: Parameter: Units: Results: Q: UG/KG ND 6 BENZENE UG/KG ND 6 BROMOBENZENE BROMOCHLOROMETHANE ND 6 UG/KG BROMODICHLOROMETHANE UG/KG ND 6 UG/KG ND 6 BROMOFORM 6 BROMOMETHANE UG/KG ND UG/KG UG/KG 6 CARBON TETRACHLORIDE ND CHLOROBENZENE ND 6 UG/KG ND 6 CHLOROETHANE UG/KG ND 6 CHLOROFORM CHLOROMETHANE UG/KG ND 6 2 - CHLOROTOLUENE UG/KG 6 ND 4 - CHLOROTOLUENE UG/KG ND 6 CIS 1,2 DICHLOROETHYLENE CHLORODIBROMOMETHANE UG/KG ND 6 UG/KG ND 6 DIBROMOMETHANE UG/KG ND 6 1,4-DICHLOROBENZENE ND UG/KG 6 1,3-DICHLOROBENZENE UG/KG ND 6 1,2-DICHLOROBENZENE UG/KG ND 6 UG/KG 6 DICHLORODIFLUOROMETHANE ND 1,1-DICHLOROETHANE ND 6 UG/KG UG/KG ND 1,2-DICHLOROETHANE 6 1,1-DICHLOROETHENE UG/KG ND 6 1,3 DICHLOROPROPANE UG/KG ND 6 2,2-DICHLOROPROPANE UG/KG ND б 1,2-DICHLOROPROPANE UG/KG 6 ND UG/KG ND 6 CIS-1, 3-DICHLOROPROPENE TRANS-1, 3-DICHLOROPROPENE UG/KG ND 6 1,1 DICHLOROPROPENE UG/KG ND 6 UG/KG ND 6 ETHYL BENZENE UG/KG ND 6 HEXACHLOROBUTADIENE 6 6 UG/KG ND ISOPROPYL BENZENE P-ISOPROPYLTOLUENE UG/KG ND UG/KG UG/KG METHYLENE CHLORIDE ND 6 6 6 ND NAPHTHALENE UG/KG ND N-BUTYL BENZENE UG/KG 6 ND N-PROPYL BENZENE 6 SEC-BUTYL BENZENE UG/KG ND UG/KG 6 ND STYRENE 6 ND

UG/KG



TERT-BUTYL BENZENE

[0) Page 24 Date 31-Mar-96

## "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                            | SW 846 8260 TABI<br>8260 / SW-846,                                                 | GE SIX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | September 1986                                                                  | 5 and Rev. 1                                                                                | , July 1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                         | 012 Sample Date/Time: 13-MAR-96 1020<br>DP18 Received Date: 14-MAR-96              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 |                                                                                             |              |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                    | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Results:                                                                        | Rpt Lmts:                                                                                   | Q :          |
| 1,1,1,2,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMET<br>1,2,4 TRICHLOROPRO<br>1,2,4 TRIMETHYLBEN<br>VINYL CHLORIDE<br>M,P-XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHAI<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | OETHANE<br>OETHYLENE<br>ANE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG<br>VG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 |              |

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[0) Page 25 Date 31-Mar-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Tesť: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: II Lab Id: 013 Sample Date/Time: 13-MAR-96 1305 Client Sample Id: NB1 Received Date: 14-MAR-96 Batch: MAS025 Extraction Date: N/A Blank: B Dry Weight %: 85 Analysis Date: 22-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: BENZENE UG/KG ND 6 BROMOBENZENE UG/KG ND 6 BROMOCHLOROMETHANE UG/KG ND 6 BROMODICHLOROMETHANE UG/KG ND 6 BROMOFORM UG/KG ND 6 6 6 BROMOMETHANE UG/KG UG/KG ND CARBON TETRACHLORIDE ND CHLOROBENZENE UG/KG ND 6 6 6 CHLOROETHANE UG/KG ND CHLOROFORM UG/KG ND CHLOROMETHANE UG/KG ND 6 2 - CHLOROTOLUENE UG/KG 6 ND 4 - CHLOROTOLUENE UG/KG NÐ 6 CIS 1,2 DICHLOROETHYLENE UG/KG 6 6 ND CHLORODIBROMOMETHANE UG/KG ND DIBROMOMETHANE UG/KG UG/KG ND 6 6 6 1,4-DICHLOROBENZENE ND 1,3-DICHLOROBENZENE UG/KG ND 1,2-DICHLOROBENZENE UG/KG 6 ND DICHLORODIFLUOROMETHANE UG/KG ND 1,1-DICHLOROETHANE UG/KG ND 6 1,2-DICHLOROETHANE UG/KG ND 6 1,1-DICHLOROETHENE UG/KG UG/KG ND 6 1,3 DICHLOROPROPANE ND 6 2,2-DICHLOROPROPANE UG/KG ND 6 1,2-DICHLOROPROPANE UG/KG ND 6 CIS-1, 3-DICHLOROPROPENE UG/KG ND 6 TRANS-1, 3-DICHLOROPROPENE UG/KG ND 6 1,1 DICHLOROPROPENE UG/KG ND 6 ETHYL BENZENE UG/KG ND 6 HEXACHLOROBUTADIENE UG/KG ND 6 ISOPROPYL BENZENE UG/KG ND 6 P-ISOPROPYLTOLUENE UG/KG ND 6 METHYLENE CHLORIDE UG/KG ND 6 NAPHTHALENE UG/KG ND 6 N-BUTYL BENZENE UG/KG ND 6 N-PROPYL BENZENE UG/KG ND 6 SEC-BUTYL BENZENE UG/KG ND 6 STYRENE UG/KG ND 6 TERT-BUTYL BENZENE UG/KG ND

[0) Page 26 Date 31-Mar-96

#### "FINAL REPORT FORMAT - SINGLE" 603254 Accession: Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A Matrix: SOIL OC Level: ΙI Lab Id: 013 Sample Date/Time: 13-MAR-96 1305 Client Sample Id: NB1 Received Date 14-MAR-96 Parameter: Units: Results: Rpt Lmts: 0: 1, 1, 1, 2-TETRACHLOROETHANE UG/KG ND 6 1, 1, 2, 2-TETRACHLOROETHANE UG/KG ND 6 UG/KG UG/KG TETRACHLOROETHENE ND 6 TOLUENE ND 6 TRANS 1,2 DICHLOROETHYLENE UG/KG ND 6 1, 1, 1-TRICHLOROETHANE UG/KG UG/KG ND 6 1, 1, 2-TRICHLOROETHANE ND 6 1,2,3 TRICHLOROBENZENE UG/KG ND 6 1,2,4 TRICHLOROBENZENE UG/KG ND 6 UG/KG UG/KG TRICHLOROETHENE ND 6 TRICHLOROFLUOROMETHANE ND 6 1,2,3 TRICHLOROPROPANE UG/KG ND 6 1,2,4-TRIMETHYLBENZENE UG/KG ND 6 1,3,5-TRIMETHYLBENZENE UG/KG 6 ND VINYL CHLORIDE UG/KG ND 6 M, P-XYLENE UG/KG ND 6 **O-XYLENE** UG/KG UG/KG ND HEPTANE ND 6 ISOPROPYL ACETATE UG/KG ND 24 METHYL CYCLOHEXANE UG/KG ND 12 PROPYL ACETATE UG/KG ND 24 DIBROMOFLUOROMETHANE %REC/SURR 103 80-120 TOLUENE-D8 %REC/SURR 100 81-117 BROMOFLUOROBENZENE %REC/SURR 106 74-121 ANALYST INITIALS LL

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Analysis Report

Analysis: BN EXTRACTABLES (8270)

Accession:603254Client:CSX TRANSPORTATIONProject Number:4365BProject Name:CSX GREENVILLEProject Location:GREENVILLE, SCDepartment:ORGANIC/MS Accession:

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[0) Page 1 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | BN EXTRACTABLES<br>8270 / SW-846,                                                                                                                            | (8270)<br>3rd Edition,                                       | September 198<br>September 198                                                    | 6 and Re<br>6 and Re                                               | v. 1, July<br>v. 1, July | 1992.<br>, 1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 001<br>MW-1                                                                                                                                                  |                                                              | Sample Dat<br>Received D                                                          |                                                                    | 13-MAR-96<br>14-MAR-96   | 1520             |
| Batch: ALW023<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Dry Weight %:                                                                                                                                                | N/A                                                          | Extraction<br>Analysis D                                                          |                                                                    | 18-MAR-96<br>02-APR-96   |                  |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                              | Units:                                                       | Results:                                                                          | Rpt Lm                                                             | its: Q:                  |                  |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (b) FLUORANTHEN<br>BENZO (c) FLUORANTHEN<br>BENZO (c) FLUORANTHEN<br>BENZO (c) FLUORANTHEN<br>BENZO (c) FLUORANTHEN<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL) D<br>BIS (2 - CHLOROETHYL) D<br>SIS (2 - CHLOROETHYL) D<br>SIS (2 - CHLOROISOPRO)<br>BIS (2 - CHLOROISOPRO)<br>BUTYLBENZYLPHTHALA'<br>4 - CHLORONAPHTHALENN<br>2 - CHLORONAPHTHALENN<br>2 - CHLORONAPHTHALENN<br>4 - CHLOROPHENYL - PHEN<br>CHRYSENE<br>DIBENZO (A, H) ANTHRAM<br>DIBENZ (A, J) ACRIDIN<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZEN<br>1, 3 - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>2, 6 - DINITROTOLUENE<br>2, 6 - DINITROTOLUENE<br>DI - N - OCTYLPHTHALAT | NE<br>NE<br>ETHER<br>) METHANE<br>PYL) ETHER<br>HTHALATE<br>YLETHER<br>TE<br>E<br>E<br>CENE<br>E<br>E<br>DINE<br>BENZENE<br>(a) ANTHRACENE<br>THYLAMINE<br>E | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | 700<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200 |                          |                  |



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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------|
| Project Number: 4365<br>Project Name: CSX<br>Project Location: GREE<br>Test: BN E<br>Analysis Method: 8270<br>Extraction Method: 3520                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TRANSPORTATION<br>5B<br>GREENVILLE                                                                                                                                                                                                                                           | September 1986<br>September 1986                                                                          | and Rev. 1,<br>and Rev. 1,                           | July 1992.<br>July, 1992. |
| Lab Id: 001<br>Client Sample Id: MW-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | L                                                                                                                                                                                                                                                                            | Sample Date<br>Received Da                                                                                |                                                      | IAR-96 1520<br>IAR-96     |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Units:                                                                                                                                                                                                                                                                       | Results:                                                                                                  | Rpt Lmts:                                            | Q:                        |
| DIPHENYLAMINE<br>1, 2 - DIPHENYLHYDRAZINE<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENTADIE<br>HEXACHLOROCYCLOPENTADIE<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYRENE<br>ISOPHORONE<br>3 - METHYLCHOLANTHRENE<br>2 - METHYLCHOLANTHRENE<br>2 - METHYLCHOLANTHRENE<br>1 - NAPHTHALENE<br>1 - NAPHTHYLAMINE<br>2 - NITROANILINE<br>3 - NITROANILINE<br>3 - NITROANILINE<br>4 - NITROANILINE<br>NITROBENZENE<br>N - NITROSODIMETHYLAMINE<br>N - NITROSODI - N - BUTYLAMINE<br>N - NITROSODI PHENYLAMINE<br>N - NITROSODI PHENYLAMINE<br>N - NITROSODI PHENYLAMINE<br>N - NITROSOPIPERIDINE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PHENANTHRENE<br>2 - PICOLINE<br>PRONAMIDE<br>PYRENE<br>1, 2, 4, 5 - TETRACHLOROBENZENE<br>2 - FLUOROBIPHENYL<br>NITROBENZENE - D5<br>TERPHENYL-D14<br>ANALYST | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>270<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200 |                           |

Comments:

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[0) Page 3 Date 10-Apr-96

"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | GREENVILLE, SC<br>BN EXTRACTABLE:<br>8270 / SW-846,                                                                                                                                               | 5 (8270)<br>3rd Edition,                                     | September<br>September                                                          | 1986 and 1<br>1986 and 1                                                        | Rev. 1, July<br>Rev. 1, July | 1992.<br>1992. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------|----------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 002<br>MW-2                                                                                                                                                                                       |                                                              |                                                                                 | Date/Time<br>ed Date:                                                           | : 13-MAR-96<br>14-MAR-96     | 1700           |
| Batch: ALW023<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Dry Weight %:                                                                                                                                                                                     | N/A                                                          |                                                                                 | ion Date:<br>is Date:                                                           |                              |                |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                   | Units:                                                       | Results                                                                         | : Rpt ]                                                                         | Lmts: Q:                     |                |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (b) FLUORANTHE<br>BENZO (c) PERYLE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL)<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROISOPRO<br>BIS (2 - CHLOROISOPRO<br>BUTYLBENZYLPHTHALA<br>4 - CHLORONAPHTHALEN<br>2 - CHLORONAPHTHALEN<br>2 - CHLORONAPHTHALEN<br>4 - CHLOROPHENYL - PHE<br>CHRYSENE<br>DIBENZO (A, H) ANTHRA<br>DIBENZ (A, J) ACRIDIN<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZEN<br>1, 3 - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>2, 6 - DINITROTOLUENE<br>2, 6 - DINITROTOLUENE<br>DI - N - OCTYLPHTHALAT | NE<br>NE<br>NE<br>ETHER<br>METHANE<br>PYLL ETHER<br>HTHALATE<br>YLETHER<br>TE<br>E<br>E<br>NYLETHER<br>CENE<br>E<br>E<br>DINE<br>DE<br>DE<br>DINE<br>DE<br>SENZENE<br>(a) ANTHRACENE<br>THYLAMINE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>1 |                              |                |



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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------|
| Client: C<br>Project Number: 4<br>Project Name: C<br>Project Location: G<br>Test: B<br>Analysis Method: 8<br>Extraction Method: 3<br>Matrix: G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | BN EXTRACTABLES<br>1270 / SW-846, 3                                      | (8270)<br>rd Edition, S                                      | eptember 1986<br>eptember 1986                                                  | and Rev. 1,<br>and Rev. 1,                                            | July 1992.<br>July, 1992. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | )02<br>1W-2                                                              |                                                              | Sample Date,<br>Received Dat                                                    |                                                                       | IAR-96 1700<br>IAR-96     |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                          | Units:                                                       | Results:                                                                        | Rpt Lmts:                                                             | Q :                       |
| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZIN<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENTA<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYRE<br>ISOPHORONE<br>3-METHYLCHOLANTHRENE<br>2-METHYLNAPHTHALENE<br>NAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROSODIMETHYLAMIN<br>NITROSODI-N-BUTYLAMIN<br>NITROSODIPHENYLAMIN<br>NITROSODIPHENYLAMIN<br>NITROSODIPHENYLAMIN<br>NITROSOPIPERIDINE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBENZ<br>PHENACETIN<br>PHENANTHRENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE<br>1,2,4,5-TETRACHLOROBENZE<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | ADIENE<br>ENE<br>ENE<br>ENE<br>MINE<br>(LAMINE<br>ZENE (PCNB)<br>BENZENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $ \begin{array}{c} 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\$ |                           |

[0) Page 5 Date 10-Apr-96

### "FINAL REPORT FORMAT - SINGLE"

603254 Accession: CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. GROUNDWATER Matrix: QC Level: ΤT Sample Date/Time: 13-MAR-96 1425 Lab Id: 004 Client Sample Id: MW - 3 Received Date: 14-MAR-96 Batch: ALW023 Extraction Date: 18-MAR-96 Dry Weight %: N/A 28-MAR-96 Blank: A Analysis Date: Parameter: Units: Results: Rpt Lmts: Q: ACENAPHTHENE UG/L 120 100 ACENAPHTHYLENE UG/L 100 570 ACETOPHENONE UG/L ND 100 UG/L 4-AMINOBIPHENYL ND 100 ANILINE UG/L ND 100 UG/L UG/L ANTHRACENE ND 100 BENZIDINE ND 100 BENZO(a) ANTHRACENE UG/L ND 100 BENZO(a) PYRENE UG/L ND 100 BENZO (b) FLUORANTHENE UG/L ND 100 BENZO (g, h, i) PERYLENE UG/L ND 100 BENZO (K) FLUORANTHENE UG/L ND 100 BENZYL ALCOHOL UG/L ND 100 BIS (2-CHLOROETHYL) ETHER ŬG/L ND 100 BIS (2 - CHLOROETHOXY) METHANE UG/L ND 100 BIS (2-CHLOROISOPROPYL) ETHER UG/L ND 100 BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 100 4 - BROMOPHENYL - PHENYLETHER UG/L ND 100 BUTYLBENZYLPHTHALATE UG/L ND 100 4 - CHLOROANILINE UG/L ND 100 1-CHLORONAPHTHALENE UG/L ND 100 2 - CHLORONAPHTHALENE UG/L ND 100 UG/L 4 - CHLOROPHENYL - PHENYLETHER ND 100 CHRYSENE UG/L ND 100 DIBENZO (A, H) ANTHRACENE UG/L ND 100 DIBENZ (A, J) ACRIDINE UG/L ND 100 DIBENZOFURAN UG/L ND 100 1,2-DICHLOROBENZENE UG/L ND 100 1, 3-DICHLOROBENZENE UG/L ND 100 1,4-DICHLOROBENZENE UG/L ND 100 3,3'-DICHLOROBENZIDINE UG/L ND 500 DIETHYLPHTHALATE UG/L ND 100 P-DIMETHYLAMINOAZOBENZENE 100 UG/L ND 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/L ND 100 A-.A-DIMETHYLPHENETHYLAMINE UG/L ND 100 UG/L DIMETHYLPHTHALATE ND 100 DI-N-BUTYLPHTHALATE UG/L ND 100 2,4-DINITROTOLUENE UG/L ND 100 2,6-DINITROTOLUENE UG/L ND 100 DI-N-OCTYLPHTHALATE UG/L ND 100

Accession: Client: Project Number:

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[0) Page 6 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603254 CSX TRANSPORTATION 4365B CSX GREENVILLE

Project Name: Project Location: GREENVILLE, SC Test: BN EXTRACTABLES (8270) Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. GROUNDWATER Matrix: QC Level: ΙI

| Lab Id: 004<br>Client Sample Id: MW-3                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                              |          | te/Time: 13-MAR-96 1425<br>Date: 14-MAR-96 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------|--------------------------------------------|
| Parameter:<br>DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZINE<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENTADIENE<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd) PYRENE                                                                                                                                                                                                                                                                           | Units:                                                       | Results: | Rpt Lmts: Q:                               |
| DIPHENYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND       | 100                                        |
| 1,2-DIPHENYLHYDRAZINE                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UG/L                                                         | ND       | 100                                        |
| FLUORANTHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L                                                         | NU       | 100                                        |
| FLUORENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                              | 180      | 100                                        |
| HEXACHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                              |          | 100                                        |
| HEXACHLOROBUTADIENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                              | ND<br>ND | 100                                        |
| HEXACHLOROCYCLOPENIADIENE                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                              | ND       | 100                                        |
| HEXACHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                              | ND       | 100<br>100                                 |
| INDENU(1,2,3-CO)PIRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              | ND       |                                            |
| I SOPHORONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |          | 100<br>100                                 |
| 3 - METHYLCHOLANTHRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |          | 100                                        |
| 2-METHYLNAPHTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                              | 320      | 100                                        |
| NAPHTHALENE,                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                              | 3000     | 100                                        |
| 1-NAPHIHILAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              | ND       | 100                                        |
| HEXACHLOROCYCLOPENTADIENE<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYRENE<br>ISOPHORONE<br>3-METHYLCHOLANTHRENE<br>2-METHYLCHOLANTHRENE<br>NAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROSODIMETHYLAMINE<br>N-NITROSODIMETHYLAMINE<br>N-NITROSODI-N-BUTYLAMINE<br>N-NITROSODIPHENYLAMINE<br>N-NITROSODIPHENYLAMINE<br>N-NITROSOPIPERIDINE<br>PENTACHLOROBENZENE                                                 |                                                              | ND       | 100                                        |
| 2-NITROANILINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                              | ND       | 100                                        |
| A NITROANTLING                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                              | ND       | 100                                        |
| ATTOORENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                              | ND       | 100                                        |
| N-NITROSODIMETHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              | ND       | 100                                        |
| N-NTTROSODI-N-BUTYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L                                                         | ND       | 100                                        |
| N-NITROSODI PHENYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/L                                                         | ND       | 100                                        |
| N-NITROSO-DI-N-PROPYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ŬĜ/L                                                         | ND       | 100                                        |
| N-NITROSOPIPERIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ŪĠ/L                                                         | ND       | 100                                        |
| PENTACHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ŬG/L                                                         | ND       | 100                                        |
| PENTACHLORONITROBENZENE (PCNB)                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UG/L                                                         | ND       | 100.                                       |
| PHENACETIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UG/L                                                         | ND       | 100                                        |
| PHENANTHRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L                                                         | 230      | 100                                        |
| 2-PICOLINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UG/L                                                         | ND       | 100                                        |
| PRONAMIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/L                                                         | ND       | 100                                        |
| PYRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UG/L                                                         | ND       | 100                                        |
| 1,2,4,5-TETRACHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UG/L                                                         | ND       | 100                                        |
| 1,2,4 TRICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UG/L                                                         | ND       | 100                                        |
| 2-FLUOROBIPHENYL                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | %REC/SURR                                                    | 109      | 43-116                                     |
| NITROBENZENE-D5                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | %REC/SURR                                                    | 58       | 35-114                                     |
| TERPHENYL-D14                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | %REC/SURR                                                    | 105      | 33-124                                     |
| 3-METHYLCHOLANTHRENE<br>2-METHYLNAPHTHALENE<br>NAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROSODIMETHYLAMINE<br>N-NITROSODIMETHYLAMINE<br>N-NITROSODI-N-BUTYLAMINE<br>N-NITROSODIPHENYLAMINE<br>N-NITROSOPIPERIDINE<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBENZENE (PCNB)<br>PHENANTHRENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE<br>1,2,4,5-TETRACHLOROBENZENE<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | INITIALS                                                     | ЪГ       |                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              |          |                                            |



ANALYTICAL TECHNOLOGIES, INC.

DI-N-OCTYLPHTHALATE

Accession:

Client:

[0) Page 7 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603254 CSX TRANSPORTATION 4365B CSX GREENVILLE GREENVILLE, SC

Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Analysis Method: Extraction Method: GROUNDWATER Matrix: QC Level: IΙ Sample Date/Time: 005 13-MAR-96 1450 Lab Id: Client Sample Id: MW-3D Received Date: 14-MAR-96 Batch: ALW023 Extraction Date: 18-MAR-96 Blank: A Dry Weight %: N/A Analysis Date: 02-APR-96 Parameter: Units: Results: Rpt Lmts: Q: 400 ACENAPHTHENE UG/L ND UG/L ACENAPHTHYLENE ND 400 ACETOPHENONE UG/L ND 400 UG/L 4-AMINOBIPHENYL 400 ND ANILINE UG/L ND 400 ANTHRACENE UG/L UG/L ND 400 BENZIDINE ND 400 BENZO (a) ANTHRACENE UG/L ND 400 BENZO(a) PYRENE UG/L ND 400 BENZO (b) FLUORANTHENE UG/L ND 400 BENZO(g,h,i)PERYLENE UG/L ND 400 BENZO(k) FLUORANTHENE UG/L ND 400.BENZYL ALCOHOL UG/L ND 400 BIS (2-CHLOROETHYL) ETHER UG/L ND 400 BIS (2-CHLOROETHOXY) METHANE UG/L ND 400 BIS (2-CHLOROISOPROPYL) ETHER UG/L ND 400 BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 400 4 - BROMOPHENYL - PHENYLETHER UG/L ND 400 BUTYLBENZYLPHTHALATE UG/L ND 400 4-CHLOROANILINE UG/L ND 400 1 - CHLORONAPHTHALENE UG/L ND 400 2 - CHLORONAPHTHALENE UG/L ND 400 UG/L UG/L 4 - CHLOROPHENYL - PHENYLETHER ND 400 CHRYSENE ND 400 DIBENZO (A, H) ANTHRACENE UG/L ND 400 DIBENZ (A, J) ACRIDINE UG/L ND 400 DIBENZOFURAN UG/L ND 400 1,2-DICHLOROBENZENE UG/L ND 400 1,3-DICHLOROBENZENE UG/L ND 400 1,4-DICHLOROBENZENE UG/L ND 400 3,3'-DICHLOROBENZIDINE UG/L ND 2000 DIETHYLPHTHALATE UG/L ND 400 P-DIMETHYLAMINOAZOBENZENE UG/L 400 ND 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/L ND 400 A-, A-DIMETHYLPHENETHYLAMINE UG/L ND 400 UG/L DIMETHYLPHTHALATE ND 400 DI-N-BUTYLPHTHALATE UG/L ND 400 2,4-DINITROTOLUENE UG/L ND 400 2,6-DINITROTOLUENE UG/L ND 400

UG/L

ND

400

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| Accession: 603254<br>Client: CSX TRANSPORTA<br>Project Number: 4365B<br>Project Name: CSX GREENVILLE<br>Project Location: GREENVILLE, SC<br>Test: BN EXTRACTABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TION<br>S (8270)<br>3rd Edition,                             | RMAT - SINGLE"<br>September 1986<br>September 1986                              | Da<br>and Rev. 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ) Page 8<br>te 10-Apr-96<br>, July 1992.<br>, July, 1992. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Lab Id: 005<br>Client Sample Id: MW-3D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              | Sample Date<br>Received Da                                                      | /Time: 13-<br>te: 14-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MAR-96 1450<br>MAR-96                                     |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Units:                                                       | Results:                                                                        | Rpt Lmts:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Q :                                                       |
| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZINE<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENTADIENE<br>HEXACHLOROCYCLOPENTADIENE<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYRENE<br>ISOPHORONE<br>3-METHYLCHOLANTHRENE<br>2-METHYLNAPHTHALENE<br>- METHYLNAPHTHALENE<br>- NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROSODILINE<br>N-NITROSODI - N-BUTYLAMINE<br>N-NITROSODI - N-BUTYLAMINE<br>N-NITROSODI - N-PROPYLAMINE<br>N-NITROSODI PHENYLAMINE<br>N-NITROSOPIPERIDINE<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBENZENE (PCNB)<br>PHENANTHRENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE<br>1,2,4,5-TETRACHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>2-FLUOROBIPHENYL<br>NITROBENZENE - D5<br>TERPHENYL-D14<br>ANALYST | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $\begin{array}{c} 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 400\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4000\\ 4$ |                                                           |

ANALYTICAL TECHNOLOGIES, INC.

[0) Page 9

Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Matrix: GROUNDWATER OC Level: TT Lab Id: 006 Sample Date/Time: 13-MAR-96 1550 Client Sample Id: MW - 4 Received Date: 14-MAR-96 Batch: ALW023 Extraction Date: 18-MAR-96 Blank: A Dry Weight %: N/A Analysis Date: 28-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: ACENAPHTHENE UG/L ND 10 ACENAPHTHYLENE UG/L ND 10 ACETOPHENONE UG/L ND 10 4 - AMINOBIPHENYL UG/L ND 10 ANILINE UG/L ND 10 ANTHRACENE UG/L ND 10 BENZIDINE UG/L ND 1.0 BENZO(a) ANTHRACENE UG/L ND 10 BENZO(a) PYRENE UG/L ND 10 BENZO(b) FLUORANTHENE UG/L ND BENZO(g,h,i) PERYLENE BENZO(k) FLUORANTHENE 10 UG/L ND 10 UG/L ND 10 BENZYL ALCOHOL UG/L ND 10 BIS (2-CHLOROETHYL) ETHER UG/L ND 10 BIS (2-CHLOROETHOXY) METHANE UG/L ND 10 BIS (2-CHLOROISOPROPYL) ETHER UG/L ND 10 BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 10 4-BROMOPHENYL-PHENYLETHER UG/L ND 10 BUTYLBENZYLPHT'HALATE UG/L ND 10 4-CHLOROANILINE UG/L ND 10 1-CHLORONAPHTHALENE UG/L ND 10 2-CHLORONAPHTHALENE UG/L ND 10 4 - CHLOROPHENYL - PHENYLETHER UG/L ND 10 CHRYSENE UG/L ND 10 DIBENZO (A, H) ANTHRACENE UG/L ND 10 DIBENZ(A, J) ACRIDINE UG/L ND 10 DIBENZOFURAN UG/L ND 10 1,2-DICHLOROBENZENE UG/L ND 10 1, 3-DICHLOROBENZENE UG/L ND 10 1,4-DICHLOROBENZENE UG/L ND 10 3,3'-DICHLOROBENZIDINE UG/L ND 50 DIETHYLPHTHALATE UG/L ND 10 P-DIMETHYLAMINOAZOBENZENE UG/L ND 10 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/L ND 10 A-, A-DIMETHYLPHENETHYLAMINE UG/L ND 10 DIMETHYLPHTHALATE UG/L ND 10 DI-N-BUTYLPHTHALATE UG/L

ND

ND

ND

ND

UG/L

UG/L

UG/L

10

10

10

10



2,4-DINITROTOLUENE

2,6-DINITROTOLUENE

DI-N-OCTYLPHTHALATE

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(0) Page 11 Date 10-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| Lab Id: 007<br>Client Sample Id: MW-<br>Batch: ALW023<br>Blank: A Dry<br>Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5                                                                               |                                                              | Sample                                                                          | Date/Time                                                |                          |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------|------|
| Blank: A Dry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Weight %: 1                                                                     |                                                              | Receive                                                                         | d Date:                                                  | : 13-MAR-96<br>14-MAR-96 | 1720 |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 | N/A                                                          |                                                                                 | ion Date:<br>s Date:                                     |                          |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                                                                               | Units:                                                       | Results:                                                                        | Rpt 1                                                    | Lmts: Q:                 |      |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZO (a) ANTHRACENE<br>BENZO (a) ANTHRACENE<br>BENZO (a) PYRENE<br>BENZO (b) FLUORANTHENE<br>BENZO (c) FLUORANTHENE<br>BIS (2 - CHLOROETHYL) ETHEL<br>BIS (2 - CHLOROETHYL) ETHEL<br>BIS (2 - CHLOROISOPROPYL)<br>BIS (2 - CHLORONAPHTHALATE<br>4 - CHLORONAPHTHALENE<br>2 - CHLORONAPHTHALENE<br>2 - CHLORONAPHTHALENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, H) ANTHRACENE<br>DIBENZO (A, J) ACRIDINE<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 4 - DICHLOROBENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 4 - DINETHYLPHTHALATE<br>1, 4 - DINETHYLPHTHALATE | R<br>HANE<br>ETHER<br>LATE<br>HER<br>THER<br>ZENE<br>ENE<br>NTHRACENE<br>LAMINE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 |                          |      |

[0) Page 12 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603254 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Matrix: GROUNDWATER QC Level: IΙ 13-MAR-96 1720 007 Sample Date/Time: Lab Id: Client Sample Id: MW-5 Received Date: 14-MAR-96 Units: Results: Rpt Lmts: Parameter: Q: UG/L ND 10 DIPHENYLAMINE 1,2-DIPHENYLHYDRAZINE UG/L ND 10 FLUORANTHENE UG/L ND 10 FLUORENE UG/L ND 10 HEXACHLOROBENZENE UG/L ND 10 UG/L HEXACHLOROBUTADIENE ND 10 HEXACHLOROCYCLOPENTADIENE UG/L ND 10 UG/L HEXACHLOROETHANE ND 10 INDENO(1,2,3-cd) PYRENE UG/L ND 10 ISOPHORONE UG/L ND 10 3-METHYLCHOLANTHRENE UG/L ND 10 2-METHYLNAPHTHALENE UG/L ND 10 UG/L NAPHTHALENE 12 10 1-NAPHTHYLAMINE UG/L ND 10 2-NAPHTHYLAMINE UG/L ND 10 2-NITROANILINE UG/L ND 10 3-NITROANILINE UG/L ND 10 UG/L 4-NITROANILINE ND 10 NITROBENZENE UG/L ND 10 N-NITROSODIMETHYLAMINE ND UG/L 10 N-NITROSODI-N-BUTYLAMINE UG/L ND 10 N-NITROSODIPHENYLAMINE UG/L ND 10 N-NITROSO-DI-N-PROPYLAMINE UG/L ND 10 N-NITROSOPIPERIDINE UG/L ND 10 PENTACHLOROBENZENE UG/L ND 10 PENTACHLORONITROBENZENE (PCNB) UG/L ND 10 PHENACETIN UG/L ND 10 PHENANTHRENE UG/L ND 10 2-PICOLINE UG/L ND 10 UG/L PRONAMIDE ND 10 PYRENE UC/L ND 10 1,2,4,5-TETRACHLOROBENZENE UG/L NÐ 10 1,2,4 TRICHLOROBENZENE UG/L ND 10 %REC/SURR
%REC/SURR 2-FLUOROBIPHENYL 88 43-116 87 NITROBENZENE-D5 35-114 %REC/SURR 100 TERPHENYL-D14 33-124 INITIALS  $\mathbf{PL}$ ANALYST

DI-N-OCTYLPHTHALATE

[0) Page 13 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603254 CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. Extraction Method: Matrix: GROUNDWATER QC Level: ΤT Sample Date/Time: 13-MAR-96 1615 008 Lab Id-Client Sample Id: MW-6 Received Date: 14-MAR-96 Extraction Date: 18-MAR-96 Batch: ALW023 Blank: A Dry Weight %: N/A Analysis Date: 28-MAR-96 Parameter: Units: Results: Rpt Lmts: 0: ACENAPHTHENE UG/L 150 40 UG/L ACENAPHTHYLENE 360 40 ACETOPHENONE UG/L ND 40 4-AMINOBIPHENYL UG/L ND 40 ANILINE UG/L ND 40 ANTHRACENE 3 UG/L 120' 40 UG/L ND BENZIDINE 40 BENZO(a) ANTHRACENE UG/L ND 40 UG/L BENZO(a) PYRENE ND 40 BENZO(b) FLUORANTHENE UG/L ND 40BENZO(g,h,i) PERYLENE UG/L ND 40 BENZO(k) FLUORANTHENE UG/L ND 40 BENZYL ALCOHOL UG/L ND 40 BIS (2-CHLOROETHYL) ETHER UG/L ND 40 BIS (2-CHLOROETHOXY) METHANE UG/L ND 40 BIS (2-CHLOROISOPROPYL) ETHER UG/L ND 40 BIS (2-ETHYLHEXYL) PHTHALATE UG/L ND 40 4-BROMOPHENYL-PHENYLETHER UG/L ND 40 BUTYLBENZYLPHTHALATE UG/L ND 40 4 - CHLOROANILINE UG/L ND 40 1 - CHLORONAPHTHALENE UG/L ND 4.0 2 - CHLORONAPHTHALENE UG/L ND 40 4 - CHLOROPHENYL - PHENYLETHER UG/L ND 40 UG/L ND CHRYSENE 40 DIBENZO(A, H) ANTHRACENE UG/L ND 40 UG/L DIBENZ(A, J) ACRIDINE ND 40DIBENZOFURAN<sup>34</sup> UG/L 220 401,2-DICHLOROBENZENE UG/L ND 4.0 1, 3-DICHLOROBENZENE UG/L ND 40 1,4-DICHLOROBENZENE UG/L ND 40 3,3'-DICHLOROBENZIDINE UG/L ND 200 DIETHYLPHTHALATE UG/L ND 40 P-DIMETHYLAMINOAZOBENZENE UG/L ND 40 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/L ND 40 UG/L A-, A-DIMETHYLPHENETHYLAMINE ND 40 DIMETHYLPHTHALATE UG/L ND 40 DI-N-BUTYLPHTHALATE UG/L ND 40 2,4-DINITROTOLUENE UG/L NĎ 40 2,6-DINITROTOLUENE UG/L ND 40

UG/L

ND

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[0) Page 14 Date 10-Apr-96

### "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 603254<br>CSX TRANSPORTATI<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>BN EXTRACTABLES<br>8270 / SW-846, 3<br>3520 / SW-846, 3<br>GROUNDWATER<br>II | (8270)<br>Brd Edition,                                       | September 198<br>September 198                                                                       | 6 and Rev. 1,<br>6 and Rev. 1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | , July 1<br>, July,    | .992.<br>1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 008<br>MW-6                                                                                                                                             |                                                              | Sample Dat<br>Received D                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MAR - 96 1<br>MAR - 96 | 1615           |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                         | Units:                                                       | Results:                                                                                             | Rpt Lmts:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Q :                    |                |
| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZ<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PY<br>ISOPHORONE<br>3-METHYLCHOLANTHRE<br>2-METHYLCHOLANTHRE<br>2-METHYLNAPHTHALEN<br>NAPHTHALENE **<br>1-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROSODIMETHYLA<br>NITROSODI - N-BUTY<br>N-NITROSODI - N-BUTY<br>N-NITROSODI PHENYLA<br>N-NITROSOPIPERIDIN<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PHENACETIN<br>PHENANTHRENE:<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE *<br>1,2,4,5-TETRACHLOR<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | E<br>TADIENE<br>RENE<br>NE<br>E<br>MINE<br>LAMINE<br>MINE<br>PYLAMINE<br>E<br>NZENE (PCNB)<br>OBENZENE                                                  | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>130<br>250<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | $\begin{array}{c} 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 4 \\ 0 \\ 1 \\ 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1$ |                        |                |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------|--------------------|
| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                          | BN EXTRACTABLES<br>8270 / SW-846,                                              | (8270)<br>3rd Edition,                                                                                                                                                                                         | September 198<br>September 198                                                         | 6 and Rev<br>6 and Rev                                                       | v. 1, July<br>v. 1, July | , 1992.<br>, 1992. |
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 009<br>MW-7                                                                    |                                                                                                                                                                                                                | Sample Dat<br>Received D                                                               |                                                                              | 13-MAR-96<br>14-MAR-96   |                    |
| Batch: ALW023<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Dry Weight %:                                                                  | N/A                                                                                                                                                                                                            | Extraction<br>Analysis D                                                               |                                                                              | 18-MAR-96<br>02-APR-96   |                    |
| Parameter:<br>ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZO(a) ANTHRACENE<br>BENZO(a) ANTHRACENE<br>BENZO(b) FLUORANTHE<br>BENZO(c) FLUORANTHE<br>BENZO(c) FLUORANTHE<br>BENZO(c) FLUORANTHE<br>BENZO(c) FLUORANTHE<br>BENZYL ALCOHOL<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROISOPRO<br>BIS(2-CHLOROISOPRO<br>BIS(2-CHLOROISOPRO<br>BIS(2-CHLOROISOPRO<br>BIS(2-CHLOROISOPRO<br>BUTYLBENZYLPHTHALA<br>4-CHLOROANILINE<br>1-CHLORONAPHTHALEN<br>2-CHLOROPHENYL-PHE | NE<br>NE<br>ETHER<br>) METHANE<br>PYL) ETHER<br>HTHALATE<br>YLETHER<br>TE<br>E | Units:<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | Results:<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | Rpt Lmt<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>10 | ts: Q:                   |                    |
| CHRYSENE<br>DIBENZO(A, H) ANTHRA<br>DIBENZ(A, J) ACRIDIN<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZEN<br>1, 3 - DICHLOROBENZEN<br>3, 3 ' - DICHLOROBENZEN<br>3, 3 ' - DICHLOROBENZI<br>DIETHYLPHTHALATE<br>P - DIMETHYLPHTHALATE<br>P - DIMETHYLPHTHALATE<br>DIMETHYLPHTHALATE<br>DI - N - BUTYLPHTHALATE<br>2, 4 - DINITROTOLUENE<br>2, 6 - DINITROTOLUENE<br>DI - N - OCTYLPHTHALAT                                                                                                                                                                                  | E<br>E<br>E<br>DINE<br>BENZENE<br>(a) ANTHRACENE<br>THYLAMINE<br>E             | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L                                                                                                                                                   | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N        | 100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100           |                          |                    |



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Accession:

(0) Page 16 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE"

CSX TRANSPORTATION Client: 4365B Project Number: Project Name: CSX GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. GROUNDWATER Matrix. OC Level: II Sample Date/Time: 13-MAR-96 0815 Lab Id: 009 Client Sample Id: MW-7 Received Date: 14-MAR-96 Units: Results: Rpt Lmts: 0: Parameter: DIPHENYLAMINE UG/L ND 100 UG/L UG/L 1,2-DIPHENYLHYDRAZINE ND 100 FLUORANTHENE ND 100 UG/L FLUORENE ND 100 HEXACHLOROBENZENE UG/L ND 100 HEXACHLOROBUTADIENE UG/L ND 100 HEXACHLOROCYCLOPENTADIENE UG/L ND 100 HEXACHLOROETHANE UG/L ND 100 INDENO(1,2,3-cd) PYRENE UG/L ND 100 UG/L ISOPHORONE ND 100 3-METHYLCHOLANTHRENE UG/L ND 100 2-METHYLNAPHTHALENE UG/L 130 100 1900 NAPHTHALENE -UG/L 100 UG/L 1-NAPHTHYLAMINE ND 100 2-NAPHTHYLAMINE UG/L ND 100 2-NITROANILINE UG/L ND 100 UG/L 3-NITROANILINE ND 100 4-NITROANILINE UG/L ND 100 NITROBENZENE UG/L ND 100 N-NITROSODIMETHYLAMINE UG/L ND 100 N-NITROSODI-N-BUTYLAMINE UG/L ND 100 N-NITROSODIPHENYLAMINE UG/L ND 100 N-NITROSO-DI-N-PROPYLAMINE UG/L ND 100 N-NITROSOPIPERIDINE UG/L ND 100 PENTACHLOROBENZENE UG/L ND 100 PENTACHLORONITROBENZENE (PCNB) UG/L ND 100 PHENACETIN UG/L ND 100 PHENANTHRENE UG/L ND 100 2-PICOLINE UG/L NÐ 100 PRONAMIDE UG/L ND 100 PYRENE UG/L ND 100 1,2,4,5-TETRACHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/L ND 100 UG/L ND 100 %REC/SURR %REC/SURR 2-FLUOROBIPHENYL 93 43-116 NITROBENZENE-D5 56 35-114 94 TERPHENYL-D14 %REC/SURR 33-124 ANALYST INITIALS PL



[0) Page 17 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603254 Accession: CSX TRANSPORTATION Client: Project Number: Project Name: 4365B CSX GREENVILLE GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: OC Level: IΊ Sample Date/Time: 12-MAR-96 0950 Lab Id: 010 Client Sample Id: DP1A Received Date: 14-MAR-96 Batch: ALS021 Extraction Date: 19-MAR-96 Dry Weight %: Analysis Date: 29-MAR-96 83 Blank: A Results: Parameter: Units: Rpt Lmts: Q: 20000 4000 UG/KG ACENAPHTHENE UG/KG ND 4000 ACENAPHTHYLENE 4000 UG/KG ND ACETOPHENONE 4 - AMINOBIPHENYL UG/KG ND 4000 UG/KG ND 4000 ANILINE 15000 🎲 ANTHRACENE 7 UG/KG 4000 UG/KG UG/KG BENZIDINE ND 4000 14000\*\* BENZO (a) ANTHRACENE 4000 BENZO (a) PYRENE UG/KG 12000 -4000 9100)\* 7500÷ BENZO (b) FLUORANTHENE UG/KG 4000 BENZO (g, h, i) PERYLENE BENZO (k) FLUORANTHENE UG/KG 4000 UG/KG 9600\* 4000 UG/KG ND BENZYL ALCOHOL 4000 ŪĠ/KĠ UG/KG BIS (2-CHLOROETHYL) ETHER ND 4000 BIS (2-CHLOROETHOXY) METHANE 4000 ND BIS (2-CHLOROISOPROPYL) ETHER UG/KG ND 4000 UG/KG UG/KG BIS (2-ETHYLHEXYL) PHTHALATE ND 4000 4-BROMOPHENYL-PHENYLETHER ND 4000 BUTYLBENZYLPHTHALATE UG/KG ND 4000 UG/KG 4-CHLOROANILINE ND 4000 1-CHLORONAPHTHALENE UG/KG ND 400,0 2 - CHLORONAPHTHALENE UG/KG ND 4000 4 - CHLOROPHENYL - PHENYLETHER UG/KG ND 4000 13000 💱 CHRYSENE . UG/KG 4000 UG/KG DIBENZO (A, H) ANTHRACENE ND 4000 DIBENZ(A, J)ACRIDINE UG/KG ND 4000 15000 🍣 DIBENZOFURAN 🕫 UG/KG 4000 1,2-DICHLOROBENZENE UG/KG ND 4000 1, 3-DICHLOROBENZENE UG/KG ND 4000 1,4-DICHLOROBENZENE UG/KG ND 4000 3,3'-DICHLOROBENZIDINE UG/KG UG/KG ND 20000 DIETHYLPHTHALATE ND 4000 P-DIMETHYLAMINOAZOBENZENE UG/KG ND 4000 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/KG ND 4000 UG/KG A-, A-DIMETHYLPHENETHYLAMINE ND 4000 DIMETHYLPHTHALATE UG/KG ND 4000 UG/KG ND 4000 DI-N-BUTYLPHTHALATE 2,4-DINITROTOLUENE UG/KG ND 4000 UG/KG ND 4000 2,6-DINITROTOLUENE **DI-N-OCTYLPHTHALATE** UG/KG ND 4000

. - - [0) Page 18 Date 10-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | BN EXTRACTABLES<br>8270 / SW-846,                                                            | (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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September 1<br>September 1                                                                                                                                  | 986 and Rev<br>986 and Rev                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7. 1, July :<br>7. 1, July : | 1992.<br>1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 010<br>DP1A                                                                                  |                                                                     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Sample D<br>Received                                                                                                                                        | ate/Time:<br>Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12-MAR-96 (<br>14-MAR-96     | 0950           |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                              | Units:                                                              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Results:                                                                                                                                                    | Rpt Lmt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ts: Q:                       |                |
| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZ<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROETHANE<br>1,02,000<br>NOT SOPHORONE<br>NAPHTHALENE<br>-METHYLCHOLANTHRE<br>2-METHYLCHOLANTHRE<br>2-METHYLCHOLANTHRE<br>2-METHYLCHOLANTHRE<br>2-METHYLAMINE<br>2-METHYLAMINE<br>2-NAPHTHALENE<br>-NITROANILINE<br>3-NITROANILINE<br>NITROBENZENE<br>N-NITROSODI-N-BUTY<br>N-NITROSODIPHENYLAN<br>N-NITROSOPIPERIDIN<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PYRENE<br>1,2,4,5-TETRACHLOR<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | E<br>TADIENE<br>RENE<br>NE<br>E<br>MINE<br>MINE<br>PYLAMINE<br>E<br>NZENE (PCNB)<br>OBENZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>32000<br>17000<br>ND<br>ND<br>ND<br>6700°<br>ND<br>13000<br>48000<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 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[0) Page 19 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | BN EXTRACTABLES<br>8270 / SW-846.                                                                                                                                                                            | 5 (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                  | September<br>September                                                          | 1986 and<br>1986 and                                             | Rev. 1, July<br>Rev. 1, July | 1992.<br>1992. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------|----------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 011<br>DP14                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                           |                                                                                 | Date/Time<br>ed Date:                                            | e: 13-MAR-96<br>14-MAR-96    |                |
| Batch: ALS021<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Dry Weight %:                                                                                                                                                                                                | 75                                                                                                                                                                                                                                                                                                                                        |                                                                                 | tion Date:<br>is Date:                                           |                              |                |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                              | Units:                                                                                                                                                                                                                                                                                                                                    | Results                                                                         | Rpt                                                              | Lmts: Q:                     |                |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (a) PYRENE<br>BENZO (b) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL)<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROISOPRC<br>BIS (2 - CHLORONAPHTHALA<br>4 - CHLORONAPHTHALA<br>2 - CHLORONAPHTHALEN<br>2 - CHLORONAPHTHALEN<br>4 - CHLORONAPHTHALEN<br>4 - CHLOROPHENYL - PHE<br>CHRYSENE<br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, J) ACRIDIN<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZEN<br>1, 3 - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>2, 4 - DINITROTOLUENN<br>2, 6 - DINITROTOLUENN<br>2, 6 - DINITROTOLUENN<br>DI - N - OCTYLPHTHALAC | ENE<br>ETHER<br>DETHER<br>DPYL) ETHER<br>DPYL) ETHER<br>DPYL) ETHER<br>DPYLETHER<br>DYLETHER<br>NTE<br>E<br>E<br>NYLETHER<br>NE<br>E<br>DE<br>DE<br>DE<br>DE<br>DE<br>DE<br>DE<br>DE<br>DE<br>DE<br>DE<br>DE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $\begin{array}{c} 440\\ 440\\ 440\\ 440\\ 440\\ 440\\ 440\\ 440$ |                              |                |

[0) Page 20 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603254 Accession: CSX TRANSPORTATION Client: Project Number: 4365B CSX GREENVILLE Project Name: Project Location: GREENVILLE, SC Test: BN EXTRACTABLES (8270) Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: ΙI OC Level: Sample Date/Time: 13-MAR-96 0900 011 Lab Id: Received Date: 14-MAR-96 DP14 Client Sample Id: Units: Results: Rpt Lmts: Q: Parameter: 440 DIPHENYLAMINE UG/KG ND 1,2-DIPHENYLHYDRAZINE UG/KG ND 440 UG/KG ND 440 FLUORANTHENE FLUORENE UG/KG ND 440 UG/KG HEXACHLOROBENZENE ND 440 HEXACHLOROBUTADIENE UG/KG NÐ 440 HEXACHLOROCYCLOPENTADIENE UG/KG ND 440 UG/KG 440 HEXACHLOROETHANE ND INDENO(1,2,3-cd) PYRENE UG/KG ND 440 UG/KG ND 440 ISOPHORONE UG/KG UG/KG 3-METHYLCHOLANTHRENE ND 440 2-METHYLNAPHTHALENE ND 440 UG/KG ND 440 NAFHTHALENE UG/KG UG/KG ND 440 1-NAPHTHYLAMINE 2-NAPHTHYLAMINE ND 440 UG/KG 2-NITROANILINE ND 440 UG/KG 3-NITROANILINE ND 440 UG/KG ND 440 4-NITROANILINE UG/KG ND 440 NITROBENZENE N-NITROSODIMETHYLAMINE UG/KG ND 440 UG/KG UG/KG N-NITROSODI-N-BUTYLAMINE ND 440 N-NITROSODIPHENYLAMINE ND 440 N-NITROSO-DI-N-PROPYLAMINE UG/KG ND 440 ND N-NITROSOPIPERIDINE UG/KG 440

UG/KG

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INITIALS

ND

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ND

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ND

ND

ND

ND

NÐ

65

58

87

PL

440

440

440

440

440

440

440

440

440

30-115

23-120

18-137

Comments:

ANALYST

PHENACETIN

PRONAMIDE

PYRENE

PHENANTHRENE 2-PICOLINE

PENTACHLOROBENZENE

2 - FLUOROBIPHENYL

NITROBENZENE-D5

TERPHENYL-D14

PENTACHLORONITROBENZENE (PCNB)

1,2,4,5-TETRACHLOROBENZENE 1,2,4 TRICHLOROBENZENE

(0) Page 21 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603254 Accession: CSX TRANSPORTATION Client: 4365B Project Number: Project Name: Project Location: CSX GREENVILLE GREENVILLE, SC BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: SOIL Matrix: QC Level: ΙI Sample Date/Time: 13-MAR-96 1020 Lab Id: 012 Client Sample Id: DP18 Received Date: 14-MAR-96 Batch: ALS021 Extraction Date: 19-MAR-96 Blank: A Dry Weight %: 83 Analysis Date: 29-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: UG/KG UG/KG ACENAPHTHENE ND 400 ACENAPHTHYLENE ND 400



| ACETOPHENONE                                                 | UG/KG | ND | 400  |
|--------------------------------------------------------------|-------|----|------|
| 4 - AMINOBIPHENYL                                            | UG/KG |    |      |
| ANILINE                                                      | UG/KG |    | 400  |
| ANTHRACENE                                                   | UG/KG | ND | 400  |
| BENZIDINE                                                    | UG/KG |    |      |
| BENZIDINE<br>BENZO(a) ANTHRACENE                             |       | ND | 400  |
|                                                              | UG/KG | ND | 400  |
| BENZO (a) PYRENE                                             | UG/KG | ND | 400  |
| BENZO (b) FLUORANTHENE                                       | UG/KG | ND | 400  |
| BENZO(g,h,i) PERYLENE                                        | UG/KG | ND | 400  |
| BENZO(k) FLUORANTHENE                                        | UG/KG | ND | 400  |
| BENZYL ALCOHOL                                               | UG/KG | ND | 400  |
| BIS (2-CHLOROETHYL) ETHER                                    | UG/KG | ND | 400  |
| BIS (2-CHLOROETHOXY) METHANE                                 | UG/KG | ND | 400  |
| BIS (2-CHLOROISOPROPYL) ETHER                                | UG/KG | ND | 400  |
| BIS (2-ETHYLHEXYL) PHTHALATE                                 | UG/KG | ND | 400  |
| 4 - BROMOPHENYL - PHENYLETHER<br>BUTYLBENZYLPHTHALATE        | UG/KG | ND | 400  |
| BUTYLBENŻYLPHTHALATE                                         | UG/KG | ND | 400  |
| 4-CHLOROANILINE                                              | UG/KG | ND | 400  |
| 1 - CHLORONAPHTHALENE                                        | UG/KG | ND | 400  |
| 2 - CHLORONAPHTHALENE                                        | UG/KG | ND | 400  |
| 4 - CHLOROPHENYL - PHENYLETHER                               | UG/KG | ND | 400  |
| CHRYSENE                                                     | UG/KG | ND | 400  |
| DIBENZO (A, H) ANTHRACENE                                    | UG/KG | ND | 400  |
| DIBENZ(A, J) ACRIDINE                                        | UG/KG | ND | 400  |
| DIBENZOFURAN                                                 | UG/KG | ND | 400  |
| 1,2-DICHLOROBENZENE                                          | UG/KG | ND | 400  |
| 1,3-DICHLOROBENZENE                                          | UG/KG | ND | 400  |
| 1,4-DICHLOROBENZENE                                          | UG/KG | ND | 400  |
| 3,3'-DICHLOROBENZIDINE                                       | UG/KG | ND | 2000 |
| DIETHYLPHTHALATE                                             | UG/KG | ND | 400  |
| P-DIMETHYLAMINOAZOBENZENE<br>7,12-DIMETHYLBENZO(a)ANTHRACENE | UG/KG | ND | 400  |
| 7,12-DIMETHYLBENZO(a)ANTHRACENE                              | UG/KG | ND | 400  |
| A-, A-DIMETHYLPHENETHYLAMINE                                 | UG/KG | ND | 400  |
| DIMETHYLPHTHALATE                                            | UG/KG | NÐ | 400  |
| DI-N-BUTYLPHTHALATE                                          | UG/KG | ND | 400  |
| 2,4-DINITROTOLUENE                                           | UG/KG | ND | 400  |
| 2,6-DINITROTOLUENE                                           | UG/KG | ND | 400  |
| DI-N-OCTYLPHTHALATE                                          | UG/KG | ND | 400  |
|                                                              |       |    |      |



[0) Page 22 Date 10-Apr-96

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"FINAL REPORT FORMAT - SINGLE"

[0) Page 23 Date 10-Apr-96 "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 603254<br>CSX TRANSPORTA<br>4365B<br>CSX GREENVILLE<br>GREENVILLE, SC<br>BN EXTRACTABLE<br>8270 / SW-846,<br>3550 / SW-846,<br>SOIL<br>II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | S (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                      | September 19<br>September 19                                                                                                                                       | 86 and Re<br>86 and Re                                             | ev. 1, July<br>ev. 1, July | 1992.<br>1992. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------|----------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 013<br>NB1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                               | Sample Da<br>Received                                                                                                                                              |                                                                    | 13-MAR-96<br>14-MAR-96     | 1305           |
| Batch: ALS021<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Dry Weight %:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 85                                                                                                                                                                                                                                                                                                                                                                            | Extractio<br>Analysis                                                                                                                                              |                                                                    | 19-MAR-96<br>29-MAR-96     |                |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Units:                                                                                                                                                                                                                                                                                                                                                                        | Results:                                                                                                                                                           | Rpt Lm                                                             | nts: Q:                    |                |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO (a) ANTHRACENE<br>BENZO (a) PYRENE<br>BENZO (b) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZO (c) FLUORANTHE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHYL)<br>BIS (2 - CHLOROETHOXY<br>BIS (2 - CHLOROISOPRC<br>BIS (2 - CHLOROISOPRC<br>BUTYLBENZYLPHTHALA<br>4 - CHLOROANILINE<br>1 - CHLOROANILINE<br>1 - CHLOROANILINE<br>1 - CHLOROANHTHALEN<br>2 - CHLOROPHENYL - PHEN<br>CHRYSENE><br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, J) ACRIDIN<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZEN<br>1, 3 - DICHLOROBENZEN<br>1, 3 - DICHLOROBENZEN<br>3, 3 ' - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>3, 3 ' - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>2, 6 - DINITROTOLUENE<br>2, 6 - DINITROTOLUENE<br>DI - N - OCTYLPHTHALAT | NE<br>NE<br>NE<br>ETHER<br>METHANE<br>PYL) ETHER<br>HTHALATE<br>YLETHER<br>TE<br>E<br>NYLETHER<br>CENE<br>E<br>DE<br>DE<br>DINE<br>DE<br>DINE<br>DE<br>SOURE<br>CONNE<br>DE<br>DINE<br>DE<br>CONNE<br>CONNE<br>DE<br>CONNE<br>DE<br>DE<br>CONNE<br>CONNE<br>CONNE<br>DE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CONNE<br>CON | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>780<br>600<br>670<br>490<br>630<br>7<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 390<br>390<br>390<br>390<br>390<br>390<br>390<br>390<br>390<br>390 |                            |                |

[0) Page 24 Date 10-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | BN EXTRACTABLES                                                                                                      | (8270)<br>ard Edition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | September 198<br>September 198                                                                                | 6 and Rev<br>6 and Rev                                             | : 1, July<br>: 1, July | 1992.<br>1992. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------|----------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 013<br>NB1                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Dat<br>Received D                                                                                      | e/Time:<br>ate:                                                    | 13-MAR-96<br>14-MAR-96 | 1305           |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                      | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Results:                                                                                                      | Rpt Lmt                                                            | s: Q:                  |                |
| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZ<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIEN<br>HEXACHLOROCYCLOPEN<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PY<br>ISOPHORONE<br>3-METHYLCHOLANTHRE<br>2-METHYLNAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>NITROBENZENE<br>N-NITROSODIPHENYLA<br>N-NITROSODIPHENYLA<br>N-NITROSODIPHENYLA<br>N-NITROSOPIPERIDIN<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PHENACETIN<br>PHENANTHRENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE <sup>-&gt;</sup><br>1,2,4,5-TETRACHLOR<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | E<br>TADIENE<br>RENE <sup>TA</sup><br>NE<br>E<br>MINE<br>LAMINE<br>MINE<br>PYLAMINE<br>E<br>NZENE (PCNB)<br>OBENZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>2000<br>ND<br>ND<br>ND<br>ND<br>A60 ≫<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 390<br>390<br>390<br>390<br>390<br>390<br>390<br>390<br>390<br>390 |                        |                |

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Analysis Report

Analysis: RCRA METALS

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Accession: 603312 Accession. Client: CSX TRANSFORM. Project Number: 4365B Project Name: GREENVILLE, SC Project Location: GREENVILLE, SC Pepartment: METALS CSX TRANSPORTATION

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{0) Page 1 Date 22-Mar-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Matrix:<br>QC Level:                           | 603312<br>CSX TRANSPORTATION<br>4365B<br>GREENVILLE, SC<br>GREENVILLE, SC<br>RCRA METALS<br>SOIL<br>II |                                              |                                           |                                                                              |                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------|
| Lab Id:<br>Client Sample Id:                                                                                                              | 001<br>LF-024-2                                                                                        |                                              | Sample Date/Time<br>Received Date:        |                                                                              | 0930                                                |
| Parameters:                                                                                                                               | Units:                                                                                                 | Results:                                     | Rpt Lmts: (                               | ): Batch:                                                                    | Analyst:                                            |
| SILVER (6010)<br>ARSENIC (6010)<br>BARIUM (6010)<br>CADMIUM (6010)<br>CHROMIUM (6010)<br>MERCURY (7471)<br>LEAD (6010)<br>SELENIUM (6010) | MG/KG<br>MG/KG<br>MG/KG<br>MG/KG<br>MG/KG<br>MG/KG<br>MG/KG                                            | ND<br>6<br>190<br>ND<br>42<br>ND<br>21<br>ND | 1<br>5<br>1<br>0.5<br>1<br>0.1<br>5<br>20 | A6S032<br>R6S032<br>B6S032<br>C6S032<br>H6S032<br>M4S019<br>P6S032<br>S6S032 | JLH<br>JLH<br>JLH<br>JLH<br>JLH<br>GJ<br>JLH<br>JLH |





Analysis Report

Analysis: SW 846 8260 TABLE SIX

603312 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: GREENVILLE, SC Project Location: GREENVILLE, SC Department: ORGANIC/MS



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ANALYTICAL TECHNOLOGIES, INC.

TERT-BUTYL BENZENE

(0) Page 1 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603312 CSX TRANSPORTATION Client: 4365B Project Number: Project Name: GREENVILLE, SC GREENVILLE, SC Project Location: SW 846 8260 TABLE SIX Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A SOIL Matrix: QC Level: ΤT Sample Date/Time: 15-MAR-96 0930 001 Lab Id: Client Sample Id: LF-024-2 Received Date: 18-MAR-96 Batch: MAS027 Extraction Date: N/ADry Weight %: 75 Analysis Date: 25-MAR-96 Blank: A Units: Results: Rpt Lmts: Q : Parameter: UG/KG ND 7 BENZENE 7 UG/KG BROMOBENZENE ND UG/KG 7 BROMOCHLOROMETHANE ND 7 7 BROMODICHLOROMETHANE UG/KG ND UG/KG NÐ BROMOFORM BROMOMETHANE UG/KG ND 7 7 CARBON TETRACHLORIDE UG/KG ND 7 CHLOROBENZENE UG/KG ND 7 UG/KG CHLOROETHANE ND UG/KG 7 CHLOROFORM ND 7 7 CHLOROMETHANE UG/KG ND UG/KG 2-CHLOROTOLUENE ND UG/KG ND 7 4 - CHLOROTOLUENE 7 CIS 1,2 DICHLOROETHYLENE UG/KG ND UG/KG UG/KG 7 7 CHLORODIBROMOMETHANE ND DIBROMOMETHANE ND 7 1,4-DICHLOROBENZENE UG/KG ND 7 7 1,3-DICHLOROBENZENE UG/KG ND 1,2-DICHLOROBENZENE UG/KG ND ÚG/KG DICHLORODIFLUOROMETHANE ND 7 7 UG/KG 1,1-DICHLOROETHANE ND 1,2-DICHLOROETHANE UG/KG 7 ND UG/KG 7 7 1,1-DICHLOROETHENE ND 1,3 DICHLOROPROPANE UG/KG ND 7 7 2,2-DICHLOROPROPANE UG/KG ND 1,2-DICHLOROPROPANE UG/KG ND CIS-1, 3-DICHLOROPROPENE UG/KG 7 ND TRANS-1, 3-DICHLOROPROPENE UG/KG ND 7 1,1 DICHLOROPROPENE 7 UG/KG ND UG/KG 7 ETHYL BENZENE ND 7 **HEXACHLOROBUTADIENE** UG/KG ND 7 ISOPROPYL BENZENE UG/KG ND UG/KG 7 P-ISOPROPYLTOLUENE ND METHYLENE CHLORIDE UG/KG ND 7 UG/KG 7 NAPHTHALENE ND 7 N-BUTYL BENZENE UG/KG ND UG/KG 7 N-PROPYL BENZENE ND 7 UG/KG SEC-BUTYL BENZENE ND UG/KG 7 STYRENE ND UG/KG 7

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ANALYTICAL TECHNOLOGIES, INC.

[0) Page 2 Date 02-Apr-96

"FINAL REPORT FORMAT - SINGLE"

Accession: 603312 CSX TRANSPORTATION Client: 4365B Project Number: GREENVILLE, SC Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A SOIL Matrix: QC Level: II Lab Id: 001 Sample Date/Time: 15-MAR-96 0930 Client Sample Id: LF-024-2 Received Date: 18-MAR-96 Parameter: Units: Results: Rpt Lmts: 0: 1, 1, 1, 2-TETRACHLOROETHANE UG/KG ND 7 1, 1, 2, 2 - TETRACHLOROETHANE TETRACHLOROETHENE UG/KG ND 7 UG/KG 7 ND UG/KG UG/KG TOLUENE 7 ND 7 TRANS 1,2 DICHLOROETHYLENE ND 1, 1, 1-TRICHLOROETHANE UG/KG ND 777777 1, 1, 2-TRICHLOROETHANE UG/KG UG/KG ND 1,2,3 TRICHLOROBENZENE ND 1,2,4 TRICHLOROBENZENE UG/KG ND TRICHLOROETHENE UG/KG ND TRICHLOROFLUOROMETHANE UG/KG ND UG/KG 7 7 1,2,3 TRICHLOROPROPANE ND 1,2,4-TRIMETHYLBENZENE UG/KG ND UG/KG UG/KG 7 7 1,3,5-TRIMETHYLBENZENE ND VINYL CHLORIDE ND M, P-XYLENE UG/KG ND 7 **O-XYLENE** UG/KG 7 ND HEPTANE UG/KG ND 7 ISOPROPYL ACETATE UG/KG 27 ND METHYL CYCLOHEXANE UG/KG ND 13 PROPYL ACETATE UG/KG ND 27 DIBROMOFLUOROMETHANE %REC/SURR 104 80-120 TOLUENE-D8 %REC/SURR 103 81-117 BROMOFLUOROBENZENE %REC/SURR 126\* 74-121

Comments:

ANALYST

\* SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

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[0) Page 9 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603312 CSX TRANSPORTATION Client: 4365B Project Number: GREENVILLE, SC Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A GROUNDWATER Matrix: QC Level: TT Sample Date/Time: 005 15-MAR-96 1030 Lab Id: Client Sample Id: G-TANK 1 Received Date: 18-MAR-96 Batch: MAW027 Extraction Date: N/A Dry Weight %: N/A Analysis Date: 25-MAR-96 Blank: A Units: Results: Rpt Lmts: Parameter: Q : UG/L 5 BENZENE ND ŪG/L ND 5 BROMOBENZENE 5 5 BROMOCHLOROMETHANE UG/L ND UG/L BROMODICHLOROMETHANE ND 555555555 BROMOFORM UG/L ND UG/L BROMOMETHANE ND CARBON TETRACHLORIDE UG/L ND CHLOROBENZENÉ UG/L ND UG/L CHLOROETHANE . 22 CHLOROFORM UG/L ND ŪĞ/L UG/L CHLOROMETHANE ND 5 5 5 2-CHLOROTOLUENE ND 4 - CHLOROTOLUENE UG/L ND CIS 1,2 DICHLOROETHYLENE UG/L ND 5 5 5 5 CHLORODIBROMOMETHANE UG/L ND DIBROMOMETHANE UG/L ND 5555555 1,4-DICHLOROBENZENE UG/L ND 1,3-DICHLOROBENZENE UG/L ND UG/L 1,2-DICHLOROBENZENE ND DICHLORODIFLUOROMETHANE UG/L ND · 1,1-DICHLOROETHANE UG/L 15 1,2-DICHLOROETHANE UG/L ND 1,1-DICHLOROETHENE UG/L ND 5555555555 1,3 DICHLOROPROPANE UG/L ND 2,2-DICHLOROPROPANE UG/L ND ŪĞ́/Ĺ 1,2-DICHLOROPROPANE ND CIS-1, 3-DICHLOROPROPENE UG/L ND TRANS-1, 3-DICHLOROPROPENE UG/L ND 1,1 DICHLOROPROPENE UG/L ND ETHYL BENZENE UG/L ND 55 UG/L HEXACHLOROBUTADIENE ND ISOPROPYL BENZENE UG/L ND P-ISOPROPYLTOLUENE UG/L 5555555 ND METHYLENE CHLORIDE UG/L ND UG/L UG/L NAPHTHALENE ND N-BUTYL BENZENE ND N-PROPYL BENZENE UG/L ND UG/L SEC-BUTYL BENZENE ND STYRENE UG/L ND 5 TERT-BUTYL BENZENE UG/L ND 5

(0) Page 10 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603312 CSX TRANSPORTATION Client: 4365B Project Number: GREENVILLE, SC GREENVILLE, SC SW 846 8260 TABLE SIX Project Name: Project Location: Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A GROUNDWATER Matrix: QC Level: ΤT Lab Id: 005 Sample Date/Time: 15-MAR-96 1030 Client Sample Id: G-TANK 1 Received Date: 18-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: 1, 1, 1, 2-TETRACHLOROETHANE UG/L ND 5 1, 1, 2, 2 - TETRACHLOROETHANE TETRACHLOROETHENE UG/L 5 ND UG/L ND 5 TOLUENE UG/L ND 5 TRANS 1,2 DICHLOROET 1,1,1-TRICHLOROETHANE DICHLOROETHYLENE UG/L 5 ND UG/L 5 5 ND 1,1,2-TRICHLOROETHANE UG/L ND 1,2,3 TRICHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/L ND 5 5 UG/L ND TRICHLOROETHENE UG/L ND 5 TRICHLOROFLUOROMETHANE UG/L 5 5 ND 1,2,3 TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE UG/L ND UG/L ND 5 1,3,5-TRIMETHYLBENZENE UG/L ND 5 VINYL CHLORIDE 5 ŬG∕L ND M, P-XYLENE UG/L 5 11 -**O-XYLENE** UG/L 7 5 DIBROMOFLUOROMETHANE %REC/SURR 101 74-124 **TOLUENE-D8** %REC/SURR
%REC/SURR 104 61-128 BROMOFLUOROBENZENE 104 65-138 ANALYST INITIALS ĿĿ

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"FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | GREENVILLE, SC<br>SW 846 8260 TAB<br>8260 / SW-846, | LE SIX                                                                                                                                                                                                                                                                                                                                                      | September 198                                                                   | 36 and Re                              | v. 1, July             | 1992. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------|------------------------|-------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 002<br>WW-10                                        |                                                                                                                                                                                                                                                                                                                                                             | Sample Dat<br>Received I                                                        |                                        | 15-MAR-96<br>18-MAR-96 | 1115  |
| Batch: MAS027<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Dry Weight %:                                       | 70                                                                                                                                                                                                                                                                                                                                                          | Extraction<br>Analysis I                                                        |                                        | N/A<br>25-MAR-96       |       |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                     | Units:                                                                                                                                                                                                                                                                                                                                                      | Results:                                                                        | Rpt Lm                                 | nts: Q:                |       |
| Parameter:<br>BENZENE<br>BROMOBENZENE<br>BROMOCHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMOFORM<br>BROMOMETHANE<br>CARBON TETRACHLORIDE<br>CHLOROBENZENE<br>CHLOROBENZENE<br>CHLOROFORM<br>CHLOROFORM<br>CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>2 - CHLOROTOLUENE<br>(IS 1, 2 DICHLOROETHYLENE<br>CHLORODIBROMOMETHANE<br>1, 4 - DICHLOROBENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 2 - DICHLOROBENZENE<br>1, 2 - DICHLOROBENZENE<br>1, 2 - DICHLOROBENZENE<br>1, 2 - DICHLOROETHANE<br>1, 1 - DICHLOROETHANE<br>1, 2 - DICHLOROETHANE<br>1, 2 - DICHLOROETHANE<br>1, 3 DICHLOROETHANE<br>1, 2 - DICHLOROETHANE<br>1, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 3 - DICHLOROPROPENE<br>TRANS - 1, 3 - DICHLOROPROPENE<br>TRANS - 1, 3 - DICHLOROPROPENE<br>HEXACHLOROBUTADIENE<br>ISOPROPYL BENZENE<br>P - ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE **<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>N-PROPYL BENZENE<br>SEC-BUTYL BENZENE<br>SEC-BUTYL BENZENE<br>SEC-BUTYL BENZENE<br>TERT-BUTYL BENZENE |                                                     | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 77777777777777777777777777777777777777 |                        |       |

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[0) Page 4 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603312 Client: CSX TRANSPORTATION 4365B Project Number: Project Name: Project Location: GREENVILLE, SC GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Test: Analysis Method: Extraction Method: N/A Matrix: SOIL ΙI QC Level: 002 Sample Date/Time: 15-MAR-96 1115 Lab Id: Client Sample Id: WW-10 Received Date: 18-MAR-96 Rpt Lmts: Parameter: Units: Results: 0: 1, 1, 1, 2 - TETRACHLOROETHANE 1, 1, 2, 2 - TETRACHLOROETHANE TETRACHLOROETHENE 7 UG/KG ND UG/KG UG/KG ND 7 7 ND 7 TOLUENE UG/KG ND UG/KG UG/KG TRANS 1,2 DICHLOROETHYLENE ND 7 7 7 1, 1, 1 - TRICHLOROETHANE ND 1, 1, 2-TRICHLOROETHANE UG/KG ND 1,2,3 TRICHLOROBENZENE 1,2,4 TRICHLOROBENZENE 7 7 UG/KG UG/KG ND ND TRICHLOROETHENE UG/KG NÐ TRICHLOROFLUOROMETHANE UG/KG ND 1,2,3 TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE UG/KG UG/KG ND ND 1,3,5-TRIMETHYLBENZENE UG/KG ND UG/KG UG/KG VINYL CHLORIDE ND M, P-XYLENE ND **O-XYLENE** UG/KG ND HEPTANE UG/KG ND 29 ISOPROPYL ACETATE UG/KG ND METHYL CYCLOHEXANE UG/KG ND 14 PROPYL ACETATE UG/KG ND 29 DIBROMOFLUOROMETHANE %REC/SURR
%REC/SURR 96 80-120 TOLUENE-D8 103 81-117 BROMOFLUOROBENZENE %REC/SURR 114 74-121 ANALYST INITIALS LГ

[0) Page 5 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603312 Accession: CSX TRANSPORTATION Client: 4365B Project Number: GREENVILLE, SC Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: ΤT Lab Id: 003 Sample Date/Time: 15-MAR-96 1200 Client Sample Id: WW-11 Received Date: 18-MAR-96 Batch: MAS027 Extraction Date: N/A Dry Weight %: 26-MAR-96 Blank: A 32 Analysis Date: Parameter: Units: Results: Rpt Lmts: Q: BENZENE UG/KG ND 20 BROMOBENZENE UG/KG ND 20 UG/KG UG/KG BROMOCHLOROMETHANE ND 20 BROMODICHLOROMETHANE ND 20 BROMOFORM UG/KG ND 20 BROMOMETHANE UG/KG ND 20 CARBON TETRACHLORIDE UG/KG ND 20 CHLOROBENZENE UG/KG NÐ 20 CHLOROETHANE UG/KG ND 20 UG/KG UG/KG CHLOROFORM ND 20 CHLOROMETHANE ND 20 2-CHLOROTOLUENE UG/KG ND 20 4 - CHLOROTOLUENE UG/KG ND 20 CIS 1,2 DICHLOROETHYLENE UG/KG ND 20 CHLORODIBROMOMETHANE UG/KG ND 20 DIBROMOMETHANE UG/KG ND 20 UG/KG UG/KG 1,4-DICHLOROBENZENE ND 20 1,3-DICHLOROBENZENE ND 20 1,2-DICHLOROBENZENE UG/KG ND 20 DICHLORODIFLUOROMETHANE UG/KG ND 20 1,1-DICHLOROETHANE UG/KG ND 20 1,2-DICHLOROETHANE UG/KG ND 20 1,1-DICHLOROETHENE UG/KG ND 20 1,3 DICHLOROPROPANE UG/KG ND 20 2, 2-DICHLOROPROPANE UG/KG ND 20 1,2-DICHLOROPROPANE UG/KG ND 20 CIS-1,3-DICHLOROPROPENE TRANS-1,3-DICHLOROPROPENE UG/KG UG/KG ND 20 ND 20 1,1 DICHLOROPROPENE UG/KG ND 20 UG/KG ETHYL BENZENE ND 20 HEXACHLOROBUTADIENE UG/KG ND 20 ISOPROPYL BENZENE UG/KG ND 20 P-ISOPROPYLTOLUENE UG/KG ND 20 METHYLENE CHLORIDE UG/KG ND 20 NAPHTHALENE UG/KG ND 20 N-BUTYL BENZENE UG/KG ND 20 N-PROPYL BENZENE UG/KG UG/KG ND 20 SEC-BUTYL BENZENE ND 20 STYRENE UG/KG ND 20 TERT-BUTYL BENZENE UG/KG ND 20

(0) Page 6 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603312 Accession: CSX TRANSPORTATION Client: 4365B Project Number: GREENVILLE, SC GREENVILLE, SC SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Project Name: Project Location: Test: Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: ΙI 003 Lab Id: Sample Date/Time: 15-MAR-96 1200 Client Sample Id: WW-11 Received Date: 18-MAR-96 Parameter: Units: Results: Rpt Lmts: 0:1, 1, 1, 2-TETRACHLOROETHANE 20 UG/KG ND 1, 1, 2, 2-TETRACHLOROETHANE TETRACHLOROETHENE UG/KG ND 20 UG/KG ND 20 TOLUENE UG/KG ND 20 TRANS 1,2 DICHLOROETHYLENE UG/KG ND 20 1,1,1-TRICHLOROETHANE UG/KG UG/KG ND 20 1,1,2-TRICHLOROETHANE ND 20 1,2,3 TRICHLOROBENZENE UG/KG ND 20 1,2,4 TRICHLOROBENZENE TRICHLOROETHENE UG/KG ND 20 UG/KG UG/KG ND 20 TRICHLOROFLUOROMETHANE ND 20 1,2,3 TRICHLOROPROPANE UG/KG ND 20 1,2,4-TRIMETHYLBENZENE UG/KG UG/KG ND 20 1,3,5-TRIMETHYLBENZENE ND 20 VINYL CHLORIDE UG/KG ND 20 UG/KG UG/KG M, P-XYLENE ND 20 **O-XYLENE** ND 20 HEPTANE UG/KG ND 20 ISOPROPYL ACETATE UG/KG ND 63 METHYL CYCLOHEXANE UG/KG ND 31 PROPYL ACETATE UG/KG ND 63 DIBROMOFLUOROMETHANE %REC/SURR 90 80-120 %REC/SURR
%REC/SURR TOLUENE-D8 95 81-117 BROMOFLUOROBENZENE 159\* 74-121

Comments:

ANALYST

\* SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

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[0) Page 7 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603312 Accession: CSX TRANSPORTATION Client: Project Number: Project Name: 4365B GREENVILLE, SC GREENVILLE, SC Project Location: SW 846 8260 TABLE SIX 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Test: Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: II Lab Id: 004 Sample Date/Time: 15~MAR-96 1145 Client Sample Id: WW-12 Received Date: 18-MAR-96 Batch: MAS027 Extraction Date: N/A Blank: A Dry Weight %: 57 Analysis Date: 26-MAR-96 Parameter: Units: Results: Rpt Lmts: Q: BENZENE UG/KG ND 9 BROMOBENZENE UG/KG ND 9 BROMOCHLOROMETHANE UG/KG ND 9 BROMODICHLOROMETHANE UG/KG ND 9 UG/KG BROMOFORM ND 9 BROMOMETHANE UG/KG ND 9 UG/KG UG/KG CARBON TETRACHLORIDE 9 ND CHLOROBENZENE ND 9 CHLOROETHANE UG/KG 9 ND CHLOROFORM 9 UG/KG ND CHLOROMETHANE UG/KG ND 9 2 - CHLOROTOLUENE UG/KG 9 ND 4 - CHLOROTOLUENE UG/KG ND 9 CIS 1,2 DICHLOROETHYLENE UG/KG ND 9 9 9 UG/KG CHLORODIBROMOMETHANE ND DIBROMOMETHANE UG/KG ND UG/KG UG/KG 9 9 1,4-DICHLOROBENZENE NÐ 1,3-DICHLOROBENZENE NÐ 1,2-DICHLOROBENZENE UG/KG 9 9 ND DICHLORODIFLUOROMETHANE UG/KG ND 1,1-DICHLOROETHANE UG/KG UG/KG 9 9 9 ND 1,2-DICHLOROETHANE ND 1,1-DICHLOROETHENE UG/KG ND 1,3 DICHLOROPROPANE 9 UG/KG ND 2,2-DICHLOROPROPANE 9 9 UG/KG ND 1,2-DICHLOROPROPANE UG/KG ND CIS-1,3-DICHLOROPROPENE TRANS-1,3-DICHLOROPROPENE UG/KG ND 9999999 UG/KG UG/KG ND 1,1 DICHLOROPROPENE ND ETHYL BENZENE UG/KG ND HEXACHLOROBUTADIENE UG/KG UG/KG ND ISOPROPYL BENZENE ND P-ISOPROPYLTOLUENE UG/KG 9999999 ND METHYLENE CHLORIDE UG/KG ND NAPHTHALENE UG/KG ND N-BUTYL BENZENE UG/KG ND N-PROPYL BENZENE UG/KG ND SEC-BUTYL BENZENE UG/KG UG/KG ND STYRENE ND 9 TERT-BUTYL BENZENE UG/KG ND 9

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[0) Page 8 Date 02-Apr-96 "FINAL REPORT FORMAT - SINGLE" 603312 Accession: CSX TRANSPORTATION Client: 4365B Project Number: GREENVILLE, SC Project Name: GREENVILLE, SC SW 846 8260 TABLE SIX Project Location: Test: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A Matrix: SOIL OC Level: ΊI Lab Id: 004 Sample Date/Time: 15-MAR-96 1145 Client Sample Id: WW-12 18-MAR-96 Received Date: Parameter: Units: Results: Rpt Lmts: 0: 1, 1, 1, 2 - TETRACHLOROETHANE UG/KG ND 9 1, 1, 2, 2-TETRACHLOROETHANE TETRACHLOROETHENE UG/KG UG/KG ND 9 ND 9 9 TOLUENE UG/KG ND TRANS 1,2 DICHLOROETHYLENE UG/KG 9 ND 1, 1, 1 - TRICHLOROETHANE UG/KG UG/KG 9 ND 1,1,2-TRICHLOROETHANE 9 ND 1,2,3 TRICHLOROBENZENE UG/KG ND 9 UG/KG 9 1,2,4 TRICHLOROBENZENE ND 9 TRICHLOROETHENE UG/KG ND TRICHLOROFLUOROMETHANE UG/KG 9 ND 1,2,3 TRICHLOROPROPANE 9 UG/KG ND UG/KG UG/KG 1,2,4-TRIMETHYLBENZENE ND 9 1,3,5-TRIMETHYLBENZENE 9 9 ND VINYL CHLORIDE UG/KG ND M, P-XYLENE UG/KG UG/KG ND 9 **O-XYLENE** 9 ND HEPTANE UG/KG ND 9 ISOPROPYL ACETATE 35 UG/KG ND METHYL CYCLOHEXANE UG/KG ND 18 PROPYL ACETATE UG/KG ND 35 DIBROMOFLUOROMETHANE %REC/SURR 94 80-120 %REC/SURR
%REC/SURR TOLUENE-D8 92 81-117 BROMOFLUOROBENZENE 140\* 74-121 ANALYST LLINITIALS

Comments:

\* SURROGATE RECOVERY OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

[0] Page 1 Date 02-May-96

604535 Accession: CSX TRANSPORTATION Client: 4365B Project Number: VAUGHN LANDFILL Project Name: Project Location: CSXT9415585 SW 846 8260 TABLE SIX Test: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A Matrix: SOIL QC Level: ΙI Sample Date/Time: 24-APR-96 1115 001 Lab Id: 26-APR-96 Received Date: Client Sample Id: WW13 Batch: MAS052 Extraction Date: N/A 30-APR-96 Analysis Date: Dry Weight %: 56 Blank: A Parameter: Units: Results: Rpt Lmts: 0: UG/KG UG/KG UG/KG 9 BENZENE ND BROMOBENZENE ND 9 BROMOCHLOROMETHANE 9 9 ND UG/KG BROMODICHLOROMETHANE ND UG/KG UG/KG 9 BROMOFORM ND 9 9 ND BROMOMETHANE CARBON TETRACHLORIDE UG/KG ND UG/KG UG/KG CHLOROBENZENE ND 9 9 9 CHLOROETHANE ND CHLOROFORM UG/KG ND 9 9 UG/KG CHLOROMETHANE ND 2 - CHLOROTOLUENE UG/KG ND 9 9 4 - CHLOROTOLUENE UG/KG ND CIS 1,2 DICHLOROETHYLENE UG/KG ND UG/KG UG/KG CHLORODIBROMOMETHANE ND 9 9 DIBROMOMETHANE ND 1,4-DICHLOROBENZENE UG/KG 9 ND 1,3-DICHLOROBENZENE UG/KG 9 ND 1,2-DICHLOROBENZENE UG/KG ND 9 DICHLORODIFLUOROMETHANE UG/KG ND 9 ŝ 1,1-DICHLOROETHANE UG/KG ND UG/KG UG/KG 1,2-DICHLOROETHANE 9 ND 1,1-DICHLOROETHENE 9 9 ND 1,3 DICHLOROPROPANE UG/KG ND 2, 2-DICHLOROPROPANE UG/KG UG/KG 9 9 ND 1,2-DICHLOROPROPANE ND UG/KG 9 CIS-1, 3-DICHLOROPROPENE ND TRANS-1,3-DICHLOROPROPENE UG/KG 9 ND 1,1 DICHLOROPROPENE UG/KG 9 ND UG/KG 9 ETHYL BENZENE ND HEXACHLOROBUTADIENE UG/KG ND 9 UG/KG UG/KG 9 ISOPROPYL BENZENE ND 9 9 P-ISOPROPYLTOLUENE ND METHYLENE CHLORIDE UG/KG ND 9 9 NAPHTHALENE UG/KG ND N-BUTYL BENZENE UG/KG ND UG/KG 9 N-PROPYL BENZENE ND 9 SEC-BUTYL BENZENE UG/KG ND UG/KG ND 9 STYRENE TERT-BUTYL BENZENE UG/KG ND 9

"FINAL REPORT FORMAT - SINGLE"

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

[0) Page 2 Date 02-May-96

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| Project Number: 4365<br>Project Name: VAUG<br>Project Location: CSXT<br>Test: SW 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                | TRANSPORTATION             | . September 198                                                                 | 6 and Rev. 1                                                                                | l, July 1992.           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------|
| Lab Id: 001<br>Client Sample Id: WW13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            | Sample Dat<br>Received D                                                        |                                                                                             | -APR-96 1115<br>-APR-96 |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Units:                     | Results:                                                                        | Rpt Lmts:                                                                                   | Q:                      |
| 1, 1, 1, 2 - TETRACHLOROETHA<br>1, 1, 2, 2 - TETRACHLOROETHA<br>TETRACHLOROETHENE<br>TOLUENE<br>TRANS 1, 2 DICHLOROETHY<br>1, 1, 1 - TRICHLOROETHANE<br>1, 2, 3 TRICHLOROBENZENE<br>1, 2, 4 TRICHLOROBENZENE<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMETHANE<br>1, 2, 3 TRICHLOROPROPANE<br>1, 2, 4 - TRIMETHYLBENZENE<br>1, 3, 5 - TRIMETHYLBENZENE<br>VINYL CHLORIDE<br>M, P-XYLENE<br>0 - XYLENE<br>HEPTANE<br>ISOPROPYL ACETATE<br>METHYL CYCLOHEXANE<br>PROPYL ACETATE<br>DIBROMOFLUOROMETHANE<br>TOLUENE - D8<br>BROMOFLUOROBENZENE<br>ANALYST | NE UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9 |                         |

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Analysis Report

# Analysis: BN EXTRACTABLES (8270)

Accession: 603312 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: GREENVILLE, SC Project Location: GREENVILLE, SC Department: ORGANIC/MS

[0) Page 1 Date 12-Apr-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | GREENVILLE, SC<br>BN EXTRACTABLES<br>8270 / SW-846.                                                                                                                 | 5 (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                | September 1<br>September 1                                                      | 986 and Re<br>986 and Re                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ev. 1, July<br>ev. 1, July      | 1992.<br>1992. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|
| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 001<br>LF-024-2                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sample D<br>Received                                                            | ate/Time:<br>Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 15-MAR-96<br>18-MAR-96          | 0930           |
| Batch: ALS021<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Dry Weight %:                                                                                                                                                       | 75                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 | on Date:<br>Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 19 <b>-</b> MAR-96<br>04-APR-96 |                |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                     | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Results:                                                                        | Rpt Lm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | nts: Q:                         |                |
| ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZIDINE<br>BENZO(a)ANTHRACENE<br>BENZO(b)FLUORANTHE<br>BENZO(c)FLUORANTHE<br>BENZO(c)FLUORANTHE<br>BENZO(c)FLUORANTHE<br>BENZO(c)FLUORANTHE<br>BENZO(c)FLUORANTHE<br>BENZYL ALCOHOL<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROISOPRC<br>BIS(2-CHLOROISOPRC<br>BIS(2-CHLOROISOPRC<br>BIS(2-CHLORONAPHTHALAN<br>4-CHLORONAPHTHALAN<br>2-CHLORONAPHTHALEN<br>2-CHLORONAPHTHALEN<br>4-CHLORONAPHTHALEN<br>2-CHLOROPHENYL-PHE<br>CHRYSENE<br>DIBENZO(A, H)ANTHRA<br>DIBENZOFURAN<br>1,2-DICHLOROBENZEN<br>1,3-DICHLOROBENZEN<br>1,3-DICHLOROBENZEN<br>1,4-DICHLOROBENZEN<br>1,4-DICHLOROBENZEN<br>1,4-DICHLOROBENZEN<br>1,4-DICHLOROBENZEN<br>1,4-DICHLOROBENZEN<br>2,12-DIMETHYLBENZO<br>A-, A-DIMETHYLPHTHALATE<br>DIMETHYLPHTHALATE<br>DIMETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE<br>DINETHYLPHTHALATE | NE<br>NE<br>NE<br>ETHER<br>)METHANE<br>PYL)ETHER<br>HTHALATE<br>YLETHER<br>TE<br>E<br>E<br>NYLETHER<br>CENE<br>E<br>DINE<br>DENZENE<br>(a) ANTHRACENE<br>CTHYLAMINE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $\begin{array}{c} 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4  0 \\ 4 $ |                                 |                |



ANALYTICAL TECHNOLOGIES, INC.

[0) Page 2 Date 12-Apr-96

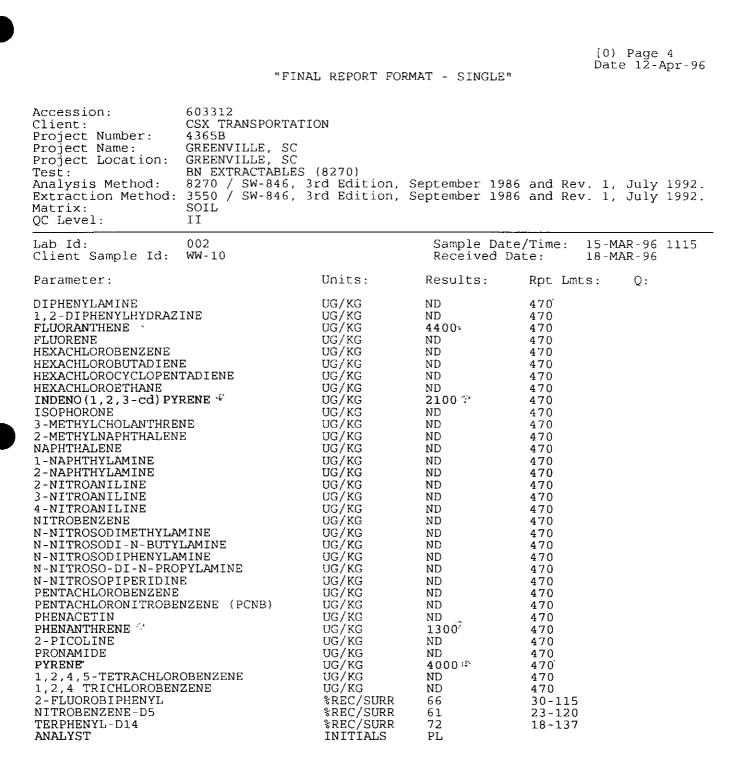
### "FINAL REPORT FORMAT - SINGLE"

603312 Accession: CSX TRANSPORTATION Client: Project Number: 4365B GREENVILLE, SC GREENVILLE, SC Project Name: Project Location: BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: QC Level: ΙI 001 Sample Date/Time: 15-MAR-96 0930 Lab Id: Client Sample Id: LF-024-2 Received Date: 18-MAR-96 Units: Parameter: Results: Rpt Lmts: Q: DIPHENYLAMINE UG/KG ND 440UG/KG UG/KG 1,2-DIPHENYLHYDRAZINE ND 440 FLUORANTHENE 510 440 FLUORENE UG/KG ND 440 HEXACHLOROBENZENE UG/KG ND 440 HEXACHLOROBUTADIENE UG/KG ND 440 HEXACHLOROCYCLOPENTADIENE UG/KG ND 440 HEXACHLOROETHANE UG/KG ND 440INDENO(1,2,3-cd) PYRENE UG/KG ND 440 UG/KG ISOPHORONE ND 440 3-METHYLCHOLANTHRENE UG/KG ND 440 2-METHYLNAPHTHALENE UG/KG ND 440 NAPHTHALENE UG/KG ND 4401-NAPHTHYLAMINE UG/KG ND 440 2-NAPHTHYLAMINE UG/KG ND 4402-NITROANILINE UG/KG ND 440UG/KG 3-NITROANILINE ND 4404-NITROANILINE UG/KG ND 440 NITROBENZENE UG/KG ND 440 N-NITROSODIMETHYLAMINE UG/KG ND 440 N-NITROSODI-N-BUTYLAMINE UG/KG ND 440UG/KG UG/KG N-NITROSODIPHENYLAMINE ND 440 N-NITROSO-DI-N-PROPYLAMINE ND 440 UG/KG N-NITROSOPIPERIDINE ND 440 PENTACHLOROBENZENE UG/KG ND 440 PENTACHLORONITROBENZENE (PCNB) UG/KG ND 440 UG/KG PHENACETIN ND 440PHENANTHRENE UG/KG 470 440 2-PICOLINE UG/KG ND 440PRONAMIDE UG/KG ND 440 PYRENE" UG/KG 450 -440 1,2,4,5-TETRACHLOROBENZENE 1,2,4 TRICHLOROBENZENE UG/KG ND 440 UG/KG ND 440 2-FLUOROBIPHENYL %REC/SURR 70 30-115 NITROBENZENE-D5 %REC/SURR 66 23-120 TERPHENYL-D14 %REC/SURR 76 18-137 ANALYST INITIALS PL

| ) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | "FI                                                                                                                                       | NAL REPORT FO                                                                                                                                                                    | RMAT - SINGLE'                                                                                                     | Ľ                                                                               | [0) Page<br>Date 12-A |                |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------|----------------|
|   | Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                              | 603312<br>CSX TRANSPORTA<br>4365B<br>GREENVILLE, SC<br>GREENVILLE, SC<br>BN EXTRACTABLE<br>8270 / SW-846,<br>3550 / SW-846,<br>SOIL<br>II | S (8270)<br>3rd Edition,                                                                                                                                                         | September 198<br>September 198                                                                                     | 36 and Rev.<br>36 and Rev.                                                      | l, July<br>l, July    | 1992.<br>1992. |
|   | Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 002<br>WW-10                                                                                                                              |                                                                                                                                                                                  | Sample Dat<br>Received I                                                                                           |                                                                                 | 5-MAR-96<br>3-MAR-96  | 1115           |
|   | Batch: ALS021<br>Blank: A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Dry Weight %:                                                                                                                             | 70                                                                                                                                                                               | Extractior<br>Analysis I                                                                                           |                                                                                 | 9-MAR-96<br>1-APR-96  |                |
|   | Parameter:<br>ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>4 - AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>BENZO(a) ANTHRACENE<br>BENZO(a) PYRENE<br>BENZO(b) FLUORANTHEI<br>BENZO(c,h,i) PERYLEI<br>BENZO(c,h,i) PERYLEI<br>BENZO(c,h,i) PERYLEI<br>BENZO(c,h,i) PERYLEI<br>BENZO(c,h) FLUORANTHEI<br>BENZYL ALCOHOL<br>BIS(2-CHLOROETHYL)<br>BIS(2-CHLOROETHOXY<br>BIS(2-CHLOROISOPRO)<br>BIS(2-ETHYLHEXYL) PHENYL                                                                                                                                                                                | NE<br>NE<br>NE - 7<br>ETHER<br>) METHANE<br>PYL) ETHER<br>HTHALATE                                                                        | Units:<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG                                             | Results:<br>ND<br>ND<br>ND<br>ND<br>ND<br>2700<br>1900<br>3100<br>2500<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND         | Rpt Lmts:<br>470<br>470<br>470<br>470<br>470<br>470<br>470<br>470<br>470<br>470 | : Q:                  |                |
|   | 4 - BROMOPHENYL - PHEN<br>BUTYLBENZYLPHTHALA'<br>4 - CHLOROANILINE<br>1 - CHLORONAPHTHALEN<br>2 - CHLORONAPHTHALEN<br>4 - CHLOROPHENYL - PHEN<br>CHRYSENE<br>DIBENZO (A, H) ANTHRA<br>DIBENZO (A, J) ACRIDIN<br>DIBENZOFURAN<br>1, 2 - DICHLOROBENZEN<br>1, 3 - DICHLOROBENZEN<br>1, 4 - DICHLOROBENZEN<br>3, 3 ' - DICHLOROBENZEN<br>3, 3 ' - DICHLOROBENZEN<br>3, 3 ' - DICHLOROBENZEN<br>7, 12 - DIMETHYLAMINOAZO<br>7, 12 - DIMETHYLBENZO<br>A - , A - DIMETHYLPHENE<br>DIMETHYLPHTHALATE<br>DI - N - BUTYLPHTHALATE<br>DI - N - BUTYLPHTHALATE<br>2, 6 - DINITROTOLUENE<br>DI - N - OCTYLPHTHALAT | TE<br>E<br>NYLETHER<br>CENE<br>E<br>DINE<br>BENZENE<br>(a) ANTHRACENE<br>THYLAMINE<br>E                                                   | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>2800 ↔<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | 470<br>470<br>470<br>470<br>470<br>470<br>470<br>470<br>470<br>470              |                       |                |



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ANALYTICAL TECHNOLOGIES, INC.

[0) Page 5 Date 12-Apr-96 "FINAL REPORT FORMAT - SINGLE" Accession: 603312 CSX TRANSPORTATION Client: 4365B Project Number: Project Name: GREENVILLE, SC GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: SOIL Matrix: QC Level: II 003 Sample Date/Time: 15-MAR-96 1200 Lab Id: Client Sample Id: WW-11 Received Date: 18-MAR-96 Batch: ALS021 Extraction Date: 19-MAR-96 Blank: A Dry Weight %: 32 Analysis Date: 08-APR-96 Units: Results: Rpt Lmts: Q: Parameter: UG/KG ND 10000 ACENAPHTHENE UG/KG ND 10000 ACENAPHTHYLENE UG/KG 10000 ACETOPHENONE ND UG/KG 10000 ND 4 - AMINOBIPHENYL UG/KG ND 10000 ANILINE ANTHRACENE UG/KG ND 10000 UG/KG BENZIDINE ND 10000 BENZO (a) ANTHRACENE UG/KG ND 10000 UG/KG 12000 10000 BENZO(a) PYRENE 🧭 BENZO (b) FLUORANTHENE UG/KG ND 10000 UG/KG UG/KG BENZO(g,h,i) PERYLENE NÐ 10000 10000 BENZO (k) FLUORANTHENE ND UG/KG 10000 BENZYL ALCOHOL ND BIS (2 - CHLOROETHYL) ETHER UG/KG ND 10000 BIS (2-CHLOROETHOXY) METHANE UG/KG ND 10000 UG/KG BIS (2-CHLOROISOPROPYL) ETHER ND 10000 UG/KG BIS (2-ETHYLHEXYL) PHTHALATE ND 10000 4 - BROMOPHENYL - PHENYLETHER UG/KG ND 10000 UG/KG ND BUTYLBENZYLPHTHALATE 10000 4 - CHLOROANILINE UG/KG ND 10000 UG/KG ND 10000 1-CHLORONAPHTHALENE 2 - CHLORONAPHTHALENE UG/KG ND 10000 UG/KG 4 - CHLOROPHENYL - PHENYLETHER ND 10000 CHRYSENE UG/KG 11000 10000 DIBENZO (A, H) ANTHRACENE UG/KG ND 10000 UG/KG DIBENZ(A, J) ACRIDINE ND 10000 DIBENZOFURAN UG/KG 10000 ND 10000 1,2-DICHLOROBENZENE UG/KG ND 1,3-DICHLOROBENZENE UG/KG ND 10000 UG/KG ND 10000 1,4-DICHLOROBENZENE NÐ 52000 3,3'-DICHLOROBENZIDINE UG/KG DIETHYLPHTHALATE ND 10000 UG/KG UG/KG 10000 P-DIMETHYLAMINOAZOBENZENE ND 7,12-DIMETHYLBENZO(a) ANTHRACENE UG/KG ND 10000 UG/KG ND 10000 A-, A-DIMETHYLPHENETHYLAMINE 10000 DIMETHYLPHTHALATE UG/KG ND 10000 DI-N-BUTYLPHTHALATE UG/KG ND UG/KG 10000 2,4-DINITROTOLUENE ND 2,6-DINITROTOLUENE UG/KG ND 10000 UG/KG ND 10000 DI-N-OCTYLPHTHALATE





[0) Page 6 Date 12-Apr-96

#### "FINAL REPORT FORMAT - SINGLE"

603312 Accession: CSX TRANSPORTATION Client: Project Number: 4365B GREENVILLE, SC Project Name: Project Location: GREENVILLE, SC BN EXTRACTABLES (8270) Test: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. SOIL Matrix: QC Level: 11 Lab Id: 003 Sample Date/Time: 15-MAR-96 1200 Client Sample Id: WW-11 Received Date: 18-MAR-96 Parameter: Units: Results: Rpt Lmts: 0: DIPHENYLAMINE UG/KG ND 10000 1,2-DIPHENYLHYDRAZINE UG/KG ND 10000 FLUORANTHENE 20000 UG/KG 10000 FLUORENE UG/KG ND 10000 UG/KG HEXACHLOROBENZENE ND 10000 HEXACHLOROBUTADIENE UG/KG ND 10000 UG/KG UG/KG HEXACHLOROCYCLOPENTADIENE ND 100.00 HEXACHLOROETHANE ND 10000 INDENO(1,2,3-cd) PYRENE UG/KG ND 10000 ISOPHORONE UG/KG ND 10000 3-METHYLCHOLANTHRENE UG/KG ND 10000 UG/KG 2-METHYLNAPHTHALENE ND 10000 NAPHTHALENE UG/KG ND 10000 1-NAPHTHYLAMINE UG/KG ND 10000 UG/KG 2-NAPHTHYLAMINE ND 10000 2-NITROANILINE UG/KG ND 10000 3-NITROANILINE UG/KG ND 10000 4-NITROANILINE UG/KG ND 10000 NITROBENZENE UG/KG ND 10000 N-NITROSODIMETHYLAMINE UG/KG ND 10000 N-NITROSODI-N-BUTYLAMINE UG/KG ND 10000 N-NITROSODIPHENYLAMINE UG/KG ND 10000 N-NITROSO-DI-N-PROPYLAMINE UG/KG ND 10000 N-NITROSOPIPERIDINE UG/KG ND 10000 PENTACHLOROBENZENE UG/KG ND 10000 PENTACHLORONITROBENZENE (PCNB) UG/KG ND 10000 PHENACETIN UG/KG ND 10000 PHENANTHRENE UG/KG ND 10000 2 - PICOLINE UG/KG ND 10000 PRONAMIDE UG/KG ND 10000 PYRENE 4 UG/KG 17000 10000 1,2,4,5-TETRACHLOROBENZENE UG/KG ND 10000 1,2,4 TRICHLOROBENZENE UG/KG ND 10000 %REC/SURR %REC/SURR 2 - FLUOROBIPHENYL 94 30-115 NITROBENZENE-D5 68 23-120 TERPHENYL-D14 %REC/SURR 106 18-137 INITIALS ANALYST PL

ANALYTICAL TECHNOLOGIES, INC.

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Date 12-Apr-96

### "FINAL REPORT FORMAT - SINGLE"

Accession: 603312 CSX TRANSPORTATION Client: Project Number: Project Name: 4365B GREENVILLE, SC GREENVILLE, SC Project Location: BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: SOIL Matrix: QC Level: TT Sample Date/Time: 15-MAR-96 1145 004 Lab Id: 18-MAR-96 Client Sample Id: WW-12 Received Date: 19-MAR-96 Extraction Date: Batch: ALS021 Dry Weight %: 57 Analysis Date: 08 - APR - 96 Blank: A Parameter: Units: Results: Rpt Lmts: Q : UG/KG ND 5800 ACENAPHTHENE UG/KG ND 5800 ACENAPHTHYLENE UG/KG ACETOPHENONE ND 5800 UG/KG 4-AMINOBIPHENYL ND 5800 ANILINÉ UG/KG ND 5800 ANTHRACENE UG/KG ND 5800 UG/KG ND 5800 BENZIDINE UG/KG ND 5800 BENZO (a) ANTHRACENE BENZO (a) PYRENE UG/KG ND 5800 UG/KG 5800 BENZO (b) FLUORANTHENE ND UG/KG BENZO(g,h,i) PERYLENE ND 5800 5800 BENZO (K) FLUORANTHENE UG/KG ND BENZYL ALCOHOL UG/KG ND 5800 UG/KG BIS (2-CHLOROETHYL) ETHER ND 5800 BIS (2-CHLOROETHOXY) METHANE UG/KG ND 5800 BIS (2-CHLOROISOPROPYL) ETHER UG/KG UG/KG 5800 ND ND 5800 BIS (2-ETHYLHEXYL) PHTHALATE UG/KG ND 5800 4 - BROMOPHENYL - PHENYLETHER ND 5800 BUTYLBENZYLPHTHALATE UG/KG UG/KG ND 5800 4 - CHLOROANILINE UG/KG ND 5800 1-CHLORONAPHTHALENE ND 2 - CHLORONAPHTHALENE UG/KG 5800 UG/KG UG/KG 5800 4 - CHLOROPHENYL - PHENYLETHER ND ND 5800 CHRYSENE UG/KG ND 5800 DIBENZO (A, H) ANTHRACENE ND 5800 DIBENZ(A, J) ACRIDINE UG/KG DIBENZOFURAN UG/KG ND 5800 1,2-DICHLOROBENZENE UG/KG 5800 ND 1,3-DICHLOROBENZENE UG/KG ND 5800 1,4-DICHLOROBENZENE UG/KG ND 5800 3,3'-DICHLOROBENZIDINE UG/KG 29000 ND DIETHYLPHTHALATE UG/KG ND 5800 P-DIMETHYLAMINOAZOBENZENE UG/KG ND 5800 UG/KG ND 5800 7,12-DIMETHYLBENZO(a)ANTHRACENE A-, A-DIMETHYLPHENETHYLAMINE UG/KG ND 5800 UG/KG DIMETHYLPHTHALATE ND 5800 **DI-N-BUTYLPHTHALATE** UG/KG ND 5800 UG/KG ND 5800 2,4-DINITROTOLUENE 2,6-DINITROTOLUENE UG/KG ND 5800 DI-N-OCTYLPHTHALATE UG/KG ND 5800



[0) Page 8 Date 12-Apr-96

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"FINAL REPORT FORMAT - SINGLE"

| Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 603312<br>CSX TRANSPORTAT:<br>4365B<br>GREENVILLE, SC<br>GREENVILLE, SC<br>BN EXTRACTABLES<br>8270 / SW-846,<br>3550 / SW-846,<br>SOIL<br>II | (8270)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | September 198<br>September 198                                                  | 36 and Rev. 1,<br>36 and Rev. 1,                             | , July 1992.<br>July 1992. |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 004<br>WW-12                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Dat<br>Received I                                                        | ce/Time: 15-M<br>Date: 18-M                                  | 4AR-96 1145<br>4AR-96      |
| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                              | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Results:                                                                        | Rpt Lmts:                                                    | Q:                         |
| DIPHENYLAMINE<br>1,2-DIPHENYLHYDRAZII<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROCYCLOPENT,<br>HEXACHLOROCYCLOPENT,<br>HEXACHLOROCTHANE<br>INDENO(1,2,3-cd)PYRI<br>ISOPHORONE<br>3-METHYLCHOLANTHRENI<br>2-METHYLNAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROSODIMETHYLAMIN<br>NITROBENZENE<br>N-NITROSODI-N-BUTYLIN<br>N-NITROSODIPHENYLAMIN<br>N-NITROSOPIPERIDINE<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBENI<br>PHENANTHRENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE<br>1,2,4,5-TETRACHLOROI<br>1,2,4 TRICHLOROBENI<br>2-FLUOROBIPHENYL<br>NITROBENIZENE -D5<br>TERPHENYL-D14<br>ANALYST | ADIENE<br>ENE<br>E<br>INE<br>AMINE<br>INE<br>YLAMINE<br>ZENE (PCNB)<br>BENZENE                                                               | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC<br>UG/SC | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5800<br>5800<br>5800<br>5800<br>5800<br>5800<br>5800<br>5800 |                            |

AMERICAN ENVIRONMENTAL NETWORK

[0) Page 1 Date 10-May-96 "FINAL REPORT FORMAT - SINGLE" 604535 CSX TRANSPORTATION Accession: Client: 4365B Project Number: VAUGHN LANDFILL Project Name: Project Location: CSXT9415585 BN EXTRACTABLES (8270) Test: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: Matrix: SOIL OC Level: Т 001 Sample Date/Time: 24-APR-96 1115 Lab Id: Client Sample Id: WW13 Received Date: 26-APR-96 Batch: ALS028 Blank: A Extraction Date: 01-MAY-96 Dry Weight %: 56 Analysis Date: 08-MAY-96 Parameter: Units: Results: Rpt Lmts: Q : ACENAPHTHENE UG/KG ND 6500 ACENAPHTHYLENE UG/KG 13000 6500 6500 ACETOPHENONE UG/KG ND 4-AMINOBIPHENYL UG/KG ND 6500 UG/KG UG/KG ANILINE ND 6500 ANTHRACENE ND 6500 BENZIDINE UG/KG ND 6500 BENZO (a) ANTHRACENE UG/KG 33000 6500 BENZO(a) PYRENE UG/KG 32000 6500 UG/KG BENZO (b) FLUORANTHENE 24000 6500 BENZO (g, h, i) PERYLENE : BENZO (k) FLUORANTHENE UG/KG 19000 6500 UG/KG 36000 6500 UG/KG BENZYL ALCOHOL ND 6500 BIS (2-CHLOROETHYL) ETHER UG/KG ND 6500 BIS (2 - CHLOROETHOXY) METHANE UG/KG UG/KG ND 6500 BIS (2-CHLOROISOPROPYL) ETHER ND 6500 BIS (2-ETHYLHEXYL) PHTHALATE UG/KG 6500 ND 4-BROMOPHENYL-PHENYLETHER UG/KG ND 6500 BUTYLBENZYLPHTHALATE UG/KG ND 6500 4-CHLOROANILINE UG/KG ND 6500 1 - CHLORONAPHTHALENE UG/KG ND 6500 2 - CHLORONAPHTHALENE UG/KG ND 6500 4 - CHLOROPHENYL - PHENYLETHER UG/KG ND 6500 CHRYSENE ( UG/KG 32000 6500 UG/KG UG/KG DIBENZO (A, H) ANTHRACENE ND 6500 DIBENZ(A, J) ACRIDINE ND 6500 UG/KG DIBENZOFURAN ND 6500 1,2-DICHLOROBENZENE UG/KG ND 6500 1, 3-DICHLOROBENZENE UG/KG ND 6500 1,4-DICHLOROBENZENE UG/KG ND 6500 3,3'-DICHLOROBENZIDINE UG/KG ND 33000 DIETHYLPHTHALATE UG/KG ND 6500 P-DIMETHYLAMINOAZOBENZENE UG/KG ND 6500 7,12-DIMETHYLBENZO(a)ANTHRACENE UG/KG ND 6500 UG/KG A-, A-DIMETHYLPHENETHYLAMINE ND 6500 DIMETHYLPHTHALATE UG/KG ND 6500 DI-N-BUTYLPHTHALATE UG/KG ND 6500 2,4-DINITROTOLUENE UG/KG ND 6500 2,6-DINITROTOLUENE UG/KG ND 6500

UG/KG

ND

6500

DI-N-OCTYLPHTHALATE

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[0) Page 2 Date 10-May-96

# "FINAL REPORT FORMAT - SINGLE"

| Accession:<br>Client:<br>Project Number:<br>Project Name:<br>Project Location:<br>Test:<br>Analysis Method:<br>Extraction Method:<br>Matrix:<br>QC Level:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CSXT9415585<br>BN EXTRACTABLES<br>8270 / SW-846,                                                         | ,<br>5 (8270)<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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Re                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | v. 1, July<br>v. 1, July | 1992.<br>1992. |
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| Lab Id:<br>Client Sample Id:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 001<br>WW13                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Dat<br>Received I                                                                        |                      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| Parameter:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                          | Units:                                                                                                                                                                                  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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ts: Q:                   |                |
| DIPHENYLAMINE<br>1, 2-DIPHENYLHYDRAZ<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIEN<br>HEXACHLOROCYCLOPEN'<br>HEXACHLOROCYCLOPEN'<br>HEXACHLOROCTHANE<br>INDENO(1, 2, 3-cd) PY<br>ISOPHORONE<br>3-METHYLCHOLANTHRE<br>2-METHYLCHOLANTHRE<br>2-NETHYLNAPHTHALENE<br>1-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROANILINE<br>NITROBENZENE<br>N-NITROSODIMETHYLA<br>N-NITROSODIPHENYLA<br>N-NITROSODIPHENYLA<br>N-NITROSOPIPERIDIN<br>PENTACHLOROBENZENE<br>PENTACHLOROBIPERIDIN<br>PHENANTHRENE<br>2-PICOLINE<br>PRONAMIDE<br>PYRENE < <sup>~</sup><br>1, 2, 4, 5-TETRACHLOR<br>1, 2, 4, TRICHLOROBEN<br>2-FLUOROBIPHENYL<br>NITROBENZENE-D5<br>TERPHENYL-D14<br>ANALYST | E<br>TADIENE<br>RENE <sup>'.</sup><br>NE<br>E<br>MINE<br>LAMINE<br>MINE<br>PYLAMINE<br>E<br>NZENE (PCNB) | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG 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# QUALITY CONTROL DATA

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Quality Control Report

Analysis: SW 846 8260 TABLE SIX

603261 CSX TRANSPORTATION Accession: Client: Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC Department: ORGANIC/MS

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[0) Page 1 Date 29-Mar-96

"QC Report"

| Batch Mi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                                                                                                                                                                            | Results: F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reporting Limi | .ts:       |
| ACROLEIN<br>ACETONE<br>ACETONITRILE<br>ACRYLONITRILE<br>ALLYL CHLORIDE<br>BENZENE<br>BROMOCHLOROMETHANE<br>BROMOBENZENE<br>BROMODICHLOROMETHANE<br>BROMOMETHANE<br>2 - BUTANONE<br>CARBON DISULFIDE<br>CHLOROPRENE<br>CARBON TETRACHLORIDE<br>CHLOROBENZENE<br>CHLOROETHANE<br>2 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>1,2 DIBROMOETHANE<br>1,2 DIBROMOETHANE<br>1,2 DIBROMOETHANE<br>1,2 - DIBROMOETHANE<br>1,2 - DIBROMOETHANE<br>1,4 - DICHLOROBENZENE<br>1,3 - DICHLOROBENZENE<br>1,3 - DICHLOROBENZENE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>1,2 | LENE L<br>PROPANE L<br>E L<br>ENE L<br>E L<br>E L<br>E L<br>E L<br>E L<br>E L<br>E L<br>E L<br>E L | IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L<br>IG/L | ND       1         ND <td< td=""><td></td><td></td></td<> |                |            |
| 2-HEXANONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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[0) Page 2 Date 29-Mar-96

"QC Report"

Water Blank Title: MAW025 Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Units:                               | Results:                                                                        | Reporting Limits:                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>TERT-BUTYL BENZENE<br>1,1,2,2-TETRACHLOROETHANE<br>1,2,2-TETRACHLOROETHANE<br>TERACHLOROETHENE<br>TOLUENE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIAMINE<br>TRANS 1,2 DICHLOROETHYLENE<br>1,1,1-TRICHLOROETHANE<br>1,2,3 TRICHLOROETHANE<br>1,2,3 TRICHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>TRICHLOROFLUOROMETHANE<br>1,2,4-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>VINYL ACETATE<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                      |                                                                                 |                                                                                             |

Comments:

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[0) Page 3 Date 29-Mar-96

|                    | "QC Report"                                                       |   |
|--------------------|-------------------------------------------------------------------|---|
| Title:             | High Soil Blank                                                   |   |
| Batch:             | MAS026                                                            | ~ |
| Analysis Method:   | 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 199   | 2 |
| Extraction Method: | : 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 199 | 2 |
|                    |                                                                   |   |
|                    |                                                                   |   |

[0) Page 4 Date 29-Mar-96

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| Title: High Soil Blan                                                                                                                                                                                                                                                                                                                                                                          | "QC Report"<br>k                                                                                                                                      |                                                                                  |                                                                                              | Date 29-Mar-96                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------|
| Batch: MAS026<br>Analysis Method: 8260 / SW-846,<br>Extraction Method: 8260 / SW-846,                                                                                                                                                                                                                                                                                                          | 3rd Edition,<br>3rd Edition,                                                                                                                          | September 1<br>September 1                                                       | 1986 and Rev<br>1986 and Rev                                                                 | 7. 1, July 1992.<br>7. 1, July 1992. |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                    | Units:                                                                                                                                                | Results:                                                                         | Reporting                                                                                    | g Limits:                            |
| ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>STYRENE<br>TERT-BUTYL BENZENE<br>1,1,2-TETRACHLOROETHANE<br>1,1,2,2-TETRACHLOROETHANE<br>TETRACHLOROETHENE<br>TOLUENE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIAMINE<br>TRANS 1,2 DICHLOROETHYLENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N  | 50<br>100<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>5       |                                      |
| 1, 1, 1-TRICHLOROETHANE<br>1, 1, 2-TRICHLOROETHANE<br>1, 2, 3 TRICHLOROBENZENE<br>1, 2, 4 TRICHLOROBENZENE<br>TRICHLOROETHENE<br>TRICHLOROFLUOROMETHANE<br>1, 2, 3 TRICHLOROPROPANE<br>1, 2, 4 -TRIMETHYLBENZENE<br>1, 3, 5-TRIMETHYLBENZENE<br>VINYL ACETATE<br>VINYL CHLORIDE<br>M, P-XYLENE<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST                          | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>%REC/SURR<br>%REC/SURR<br>%REC/SURR<br>NITIALS              | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>96<br>99<br>94<br>LL | 50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>80-120<br>81-117<br>74-121 |                                      |

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[0) Page 5 Date 29-Mar-96

"QC Report"

Low Soil Blank Title: Batch: MAS025 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

Blank Id: B Date Analyzed: 22-MAR-96 Date Extracted: N/A

| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Units:                                                      | Results:                                                                        | Reporting Limits:                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------|
| Parameters:<br>ACROLEIN<br>ACETONE<br>ACETONITRILE<br>ACETONITRILE<br>ACETONITRILE<br>ACLYL CHLORIDE<br>BENZENE<br>BROMOCHLOROMETHANE<br>BROMOCHLOROMETHANE<br>BROMOBENZENE<br>BROMOFORM<br>BROMOMETHANE<br>2 - BUTANONE<br>CARBON DISULFIDE<br>CHLOROPRENE<br>CARBON TETRACHLORIDE<br>CHLOROPENENE<br>CHLOROBENZENE<br>CHLOROBENZENE<br>CHLOROFORM<br>CHLOROMETHANE<br>2 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>1, 2 DICHLOROETHANE<br>1, 2 DIBROMOETHANE<br>1, 2 DIBROMOETHANE<br>1, 4 - DICHLOROSENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 2 - DICHLOROETHANE<br>1, 2 - DICHLOROETHANE<br>1, 2 - DICHLOROETHANE<br>1, 2 - DICHLOROETHANE<br>1, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>1, 3 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 3 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 1 DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 1 DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>1, 1 DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>4, 4 - METHYL - 2 - PENTANONE<br>HEXACHLOROBUTADIENE<br>2 - HEXANONE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                                    | 100<br>10<br>100<br>100<br>5<br>5<br>5<br>5<br>5         |
| BROMOFORM<br>BROMOMETHANE<br>2-BUTANONE<br>CARBON DISULFIDE<br>CHLOROPRENE<br>CARBON TETRACHLORIDE<br>CHLOROBENZENE<br>CHLOROETHANE<br>CHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | ទទួកទទួកទទួកទទួកទទួកទទួកទទួកទទួកទទួកទទួ                  |
| CHLOROFORM<br>CHLOROFORM<br>2-CHLOROTOLUENE<br>4-CHLOROTOLUENE<br>CIS 1,2 DICHLOROETHYLENE<br>CHLORODIBROMOMETHANE<br>1,2 DIBROMOETHANE<br>1,2-DIBROMO-3-CHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG          | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                                          | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 1,4-DICHLORO-2-BUTENE<br>DIBROMOMETHANE<br>1,4-DICHLOROBENZENE<br>1,3-DICHLOROBENZENE<br>1,2-DICHLOROBENZENE<br>DICHLORODIFLUOROMETHANE<br>1,1-DICHLOROETHANE<br>1,2-DICHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                                          | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 1,1-DICHLOROETHENE<br>1,3 DICHLOROPROPANE<br>2,2-DICHLOROPROPANE<br>1,2-DICHLOROPROPANE<br>CIS-1,3-DICHLOROPROPENE<br>TRANS-1,3-DICHLOROPROPENE<br>1,1 DICHLOROPROPENE<br>ETHYL BENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND                                                      | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5           |
| METHYL METHACRYLATE<br>METHACRYLONITRILE<br>4 -METHYL - 2 - PENTANONE<br>HEXACHLOROBUTADIENE<br>2 - HEXANONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG                   | ND<br>ND<br>ND<br>ND<br>ND                                                      | 5<br>5<br>5<br>5<br>5<br>5                               |

[0) Page 6 Date 29-Mar-96

"QC Report"

Title: Low Soil Blank Batch: MAS025 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A ---

| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Units:                                                                                                                                                                                                                                                                      | Results:                                                                        | Reporting Limits:                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Parameters:<br>ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>TERT-BUTYL BENZENE<br>1,1,2,2-TETRACHLOROETHANE<br>1,1,2,2-TETRACHLOROETHANE<br>TOLUENE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIAMINE<br>TRANS 1,2 DICHLOROETHYLENE<br>1,1,1-TRICHLOROETHANE<br>1,2,3 TRICHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>1,2,4 TRICHLOROPENANE<br>1,2,5-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>VINYL ACETATE<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8 | Units:<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | Reporting Limits:<br>5<br>10<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| BROMOFLUOROBENZENE<br>ANALYST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | %REC/SURR<br>INITIALS                                                                                                                                                                                                                                                       | 102<br>LL                                                                       | 74-121                                                                                        |

RS Date Extracted: N/A RSD Date Extracted: N/A

### "QC Report"

[0) Page 7 Date 29-Mar-96

Title: Water Reagent MAW025 Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

RS Date Analyzed: 22-MAR-96 RSD Date Analyzed: 22-MAR-96

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| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>56<br>51<br>57<br>52<br>52 | RS<br>%Rec<br>112<br>102<br>114<br>104<br>104 | RSD<br>Conc<br>57<br>51<br>57<br>53<br>53 | RSD<br>%Rec<br>114<br>102<br>114<br>106<br>106 | RPD<br>2<br>0<br>2<br>2<br>2 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>72-122<br>81-114<br>87-120<br>83-120<br>87-113 |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------------------|---------------------------------------------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                                    |                                          | 103<br>105<br>99                              |                                           | 105<br>106<br>99                               |                              |                                                 | 89-116<br>88-110<br>86-115                                    |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 8 Date 29-Mar-96

|                                                            |                                                                        | "QC Report"                              |                              |                                      |
|------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------|------------------------------|--------------------------------------|
| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method: | Low Soil Reagent<br>MAS026<br>8260 / SW-846, 3rd<br>8260 / SW-846, 3rd | Edition, September<br>Edition, September | 1986 and Rev<br>1986 and Rev | 7. 1, July 1992.<br>7. 1, July 1992. |

|                                                                        | RS Date Analyzed:<br>RSD Date Analyzed: | 25-MAR-96<br>25-MAR-96                             |                                                    |                                          |                                           | ate Extra<br>Date Extr                          |                                            |                              | - MAR - 9<br>- MAR - 9                          |                                                              |
|------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------|----------------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------------|--------------------------------------------|------------------------------|-------------------------------------------------|--------------------------------------------------------------|
| Parameter<br>1,1-DICHL<br>TRICHLORO<br>BENZENE<br>TOLUENE<br>CHLOROBEN | OROETHENE<br>ETHENE                     | Spike<br>Added<br>50<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>44<br>45<br>50<br>45<br>45 | RS<br>%Rec<br>88<br>90<br>100<br>90<br>90 | RSD<br>Conc<br>47<br>47<br>51<br>47<br>47<br>47 | RSD<br>%Rec<br>94<br>94<br>102<br>94<br>94 | RPD<br>7<br>4<br>2<br>4<br>4 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
| Surrogate<br>DIBROMOFL<br>TOLUENE-D<br>BROMOFLUO                       | UOROMETHANE<br>8                        |                                                    |                                                    |                                          | 102<br>100<br>93                          |                                                 | 101<br>104<br>94                           |                              |                                                 | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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[0) Page 9 Date 29-Mar-96

"QC Report" Low Soil Reagent Title: MAS025 Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

| RS Date Anal<br>RSD Date Ana                                                                | yzed: 22-MAR-96<br>lyzed: 22-MAR-96                |                                                    |                                          |                                               | ate Extr<br>Date Ext                      |                                                |                              |                                                 |                                                              |
|---------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------------------|--------------------------------------------------------------|
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>56<br>51<br>57<br>52<br>52 | RS<br>%Rec<br>112<br>102<br>114<br>104<br>104 | RSD<br>Conc<br>57<br>51<br>57<br>53<br>53 | RSD<br>%Rec<br>114<br>102<br>114<br>106<br>106 | RPD<br>2<br>0<br>2<br>2<br>2 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                                    |                                                    |                                          | 103<br>105<br>99                              |                                           | 105<br>106<br>99                               |                              |                                                 | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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# "QC Report"

[0) Page 10 Date 29-Mar-96

88-110 86-115

| Tirle Water Mat                                                                             | riv                                                | "ÔC Keľ                                            | OIC.                                     |                                               |                                           |                                                            |                |            |
|---------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------------------------------|----------------|------------|
| Patch MAW025                                                                                | J-846, 3rd                                         | Edition,                                           | Septembe                                 | r 1986                                        | and Rev.                                  | 1, July                                                    | 1992.          |            |
| Dry Weight %: N/A<br>Sample Spiked: 603254-2                                                | MS Date<br>MSD Dat                                 | e Analyzec<br>e Analyze                            | l: 22-MA<br>ed: 22-MA                    |                                               |                                           | te Extrac<br>ate Extra                                     |                | N/A<br>N/A |
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | MS<br>Conc<br>50<br>50<br>53<br>50<br>51 | MS<br>%Rec<br>100<br>100<br>106<br>100<br>102 | MSD<br>Conc<br>52<br>51<br>55<br>51<br>51 | MSD<br>%Rec R<br>104 4<br>102 2<br>110 4<br>102 2<br>102 0 | 14<br>24<br>16 |            |
| Surrogates:<br>DIBROMOFLUOROMETHANE                                                         |                                                    |                                                    |                                          | 102                                           |                                           | 104                                                        |                | 89-116     |

DIBROMOFLUOROMETHANE **TOLUENE - D8** BROMOFLUOROBENZENE

Comments:

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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[0] Page 11 Date 29-Mar-96

|                                                                                             |                  |         |            | "QC Re               | port"      |         |             |       |                                               |                                                              |
|---------------------------------------------------------------------------------------------|------------------|---------|------------|----------------------|------------|---------|-------------|-------|-----------------------------------------------|--------------------------------------------------------------|
| Batch:<br>Analysis Method:                                                                  | MAS026<br>8260 / | SW-846, | 3rd        | Edition,<br>Edition, |            |         |             |       |                                               |                                                              |
| Dry Weight %:<br>Sample Spiked:                                                             |                  | -<br>MS | Date       | e Analyze            |            | MS Date | e Extra     | cted: |                                               |                                                              |
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE |                  | Sp      | ike<br>ded | Sample<br>Conc       | MS<br>Conc | MS      | MSD<br>Conc | MSD   | RPD<br>190 Lmts<br>42<br>20<br>20<br>44<br>20 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
| Surrogates:<br>DIBROMOFLUOROMETHAN<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                      | ΙE               |         |            |                      |            |         |             |       |                                               | 80-120<br>81-117<br>74-121                                   |

Comments:

NO MATRIX SPIKE/MATRIX SPIKE DUPLICATE AVALIABLE DUE TO HIGH DILUTION.

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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80-120

81-117

74-121

#### "QC Report" Low Soil Matrix Title: Batch: MAS025 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A MS Date Extracted: N/A MS Date Analyzed: 23-MAR-96 Dry Weight %: 85 MSD Date Extracted: N/A Sample Spiked: 603254-13 MSD Date Analyzed: 23-MAR-96 MSD MS MS MSD RPD Rec Sample Spike Added Conc Conc %Rec Conc %Rec RPD Lmts Lmts Parameters: 98 59 100 2 42 1-234 <5.9 58 1,1-DICHLOROETHENE 59 71-157 59 <5.9 59 100 59 100 0 2.0 TRICHLOROETHENE <5.9 59 64 108 64 108 0 20 37~151 BENZENE 47-150 <5.9 100 0 44 59 59 100 59 TOLUENE 59 <5.9 60 102 59 100 2 20 37-160 CHLOROBENZENE

Surrogates: DIBROMOFLUOROMETHANE TOLUENE-D8 BROMOFLUOROBENZENE

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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# Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUTUG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS. PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS
J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT
GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD. ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS. DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMEN'T OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLMO1.8, AUGUST 1991.

| LP =  | LEVERNE PETERSON   | RW = | RITA WINGO      |
|-------|--------------------|------|-----------------|
| DWB = | DAVID BOWERS       | LD = | LARRY DILMORE   |
| DB =  | DENNIS BESON       | DC = | DAVID CELESTIAL |
| LL =  | LANCE LARSON       | RB = | RAFAEL BARRAZA  |
| JA =  | JENNIFER ALEXANDER | PL = | PAUL LESCHENSKY |
|       |                    |      |                 |

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Quality Control Report

Analysis: BN EXTRACTABLES (8270)

603261 CSX\_TRANSPORTATION Accession: Client: Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC Department: ORGANIC/MS

.

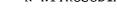
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(0) Page 1 Date 10-Apr-96

|                                                                      | "QC Repo     | ort"           |                       | bace it-Api-98    |
|----------------------------------------------------------------------|--------------|----------------|-----------------------|-------------------|
| Title: Water Blank                                                   | 60b.         | ~ •            |                       |                   |
| Batch: ALW024                                                        |              |                |                       |                   |
| Analysis Method: 8270 / SW-846,<br>Extraction Method: 3520 / SW-846, | 3rd Edit:    | ion, September | 1986 and Re           | v. 1, July 1992.  |
| Extraction Method: 3520 / SW-846,                                    | 3rd Edit:    | ion, September | 1986 and Re           | v. 1, July, 1992. |
|                                                                      |              |                |                       |                   |
|                                                                      | NAR OC       | D              |                       |                   |
| Blank Id: A Date Analyzed: 26-                                       | MAR - 96     | Date Extracte  | <b>a:</b> 20-MAR-96   |                   |
| Baramotore                                                           | Units:       | Results:       | Reportin              | g Limits:         |
| Parameters:                                                          | Units.       | Results.       | Reportin              | g Dimita.         |
| P-CHLORO-M-CRESOL                                                    | UG/L         | ND             | 10                    |                   |
| 2 - CHLOROPHENOL                                                     | ŪĠ/L         | ND             | 10                    |                   |
| O-CRESOL                                                             | UG/L         | ND             | 10                    |                   |
| M, P CRESOL                                                          | UG/L         | ND             | 10                    |                   |
| 2,4-DICHLOROPHENOL                                                   | UG/L         | ND             | 10                    |                   |
| 2,6-DICHLOROPHENOL                                                   | UG/L         | ND             | 10                    |                   |
| 2,4-DIMETHYLPHENOL                                                   | UG/L         | ND             | 10                    |                   |
| 4,6-DINITRO-O-CRESOL                                                 | UG/L         | ND             | 50                    |                   |
| 2,4-DINITROPHENOL                                                    | UG/L         | ND             | 10                    |                   |
| 2-NITROPHENOL                                                        | UG/L         | ND             | 10                    |                   |
| 4-NITROPHENOL                                                        | UG/L         | ND             | 50                    |                   |
| PENTACHLOROPHENOL                                                    | UG/L         | ND             | 50                    |                   |
| PHENOL                                                               | UG/L         | ND             | 10                    |                   |
| 2,3,4,6-TETRACHLOROPHENOL                                            | UG/L         | ND             | 10                    |                   |
| 2,4,5-TRICHLOROPHENOL                                                | UG/L         | ND             | 50                    |                   |
| 2,4,6-TRICHLOROPHENOL                                                | UG/L         | ND             | 10                    |                   |
| ACENAPHTHENE                                                         | UG/L<br>UG/L | ND<br>ND       | 10 <sup>.</sup><br>10 |                   |
| ACENAPHTHYLENE                                                       | UG/L<br>UG/L | ND             | 10                    |                   |
| ACETOPHENONE<br>2 - ACETYLAMINOFLUORENE                              | UG/L<br>UG/L | ND             | 10                    |                   |
| 4-AMINOBIPHENYL                                                      | UG/L         | ND             | 10                    |                   |
| ANILINE                                                              | UG/L         | ND             | 10                    |                   |
| ANTHRACENE                                                           | ŬG/L         | ND             | 10                    |                   |
| ARAMITE                                                              | ŬĞ/L         | ND             | īõ                    |                   |
| BENZO (A) ANTHRACENE                                                 | ŪĠ/Ĺ         | ND             | 10                    |                   |
| BENZO (A) PYRENE                                                     | UG/L         | ND             | 10                    |                   |
| BENZO (B) FLUORANTHENE                                               | UG/L         | ND             | 10                    |                   |
| BENZO (G,H,I) PERYLENE                                               | UG/L         | ND             | 10                    |                   |
| BENZO (K) FLUORANTHENE                                               | UG/L         | ND             | 10                    |                   |
| BENZYL ALCOHOL                                                       | UG/L         | ND             | 10                    |                   |
| BIS (2-CHLORO-1-METHYLETHYL) ETHER                                   | UG/L         | ND             | 10                    |                   |
| BIS (2-CHLOROETHOXY) METHANE                                         | UG/L         | ND             | 10                    |                   |
| BIS (2-CHLOROETHYL) ETHER                                            | UG/L         | ND             | 10                    |                   |
| BIS (2 - ETHYLHEXYL) PHTHALATE                                       | UG/L         | ND             | 10                    |                   |
| 4-BROMOPHENYL PHENYL ETHER                                           | UG/L         | ND             | 10                    |                   |
| BUTYLBENZYL PHTHALATE                                                | UG/L         | ND             | 10                    |                   |
| P-CHLOROANILINE                                                      | UG/L         | ND             | 10                    |                   |
| CHLOROBENZILATE                                                      | UG/L         | ND             | 10                    |                   |
| 2 - CHLORONAPHTHALENE                                                | UG/L         | ND             | 10                    |                   |
| 4-CHLOROPHENYL PHENYL ETHER<br>CHRYSENE                              | UG/L<br>UG/L | ND<br>ND       | 10<br>10              |                   |
| DIALLATE                                                             | UG/L<br>UG/L | ND             | 10                    |                   |
| DIALLAIL<br>DIBENZO (A,H) ANTHRACENE                                 | UG/L         | ND             | 10                    |                   |
| DIBENZOFURAN                                                         | UG/L         | ND             | 10                    |                   |
| 1,2-DICHLOROBENZENE                                                  | UG/L         | ND             | 10                    |                   |
| 1,3-DICHLOROBENZENE                                                  | UG/L         | ND             | 10                    |                   |
|                                                                      | -            |                | •                     |                   |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | IOC Deperts                                                  |                                                                                 | Dat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | te 10-Apr-96                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Title: Water Blank<br>Batch: ALW024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | "QC Report"                                                  |                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |
| Analysis Method: 8270 / SW-846<br>Extraction Method: 3520 / SW-846                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | , 3rd Edition,<br>, 3rd Edition,                             | September<br>September                                                          | 1986 and Rev. 1,<br>1986 and Rev. 1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | , July 1992.<br>, July, 1992. |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Units:                                                       | Results:                                                                        | Reporting Lin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | níts:                         |
| <pre>1, 4 - DICHLOROBENZENE 3, 3' - DICHLOROBENZIDINE DIETHYLPHTHALATE DIMETHYLPHTHALATE DIMETHYLPHTHALATE DIMETHYLBENZ(A) ANTHRACENE 3, 3' - DIMETHYLBENZ(A) ANTHRACENE 3, 3' - DIMETHYLBENZ(A) ANTHRACENE 3, 3' - DIMETHYLPHENETHYLAMINE DIMETHYLPHTHALATE DI - N - DINITROTOLUENE 2, 4 - DINITROTOLUENE 2, 4 - DINITROTOLUENE 2, 4 - DINITROTOLUENE DI - N - OCTYLPHTHALATE DI PHENYLAMINE ETHYL METHANESULFONATE FAMPHUR FLUORANTHENE FLUORENE HEXACHLOROBENZENE HEXACHLOROBENZENE HEXACHLOROPENENE HEXACHLOROPHENE HEXACHLOROPENE INDENO (1, 2, 3 - CD) PYRENE ISODRIN ISOPHORONE ISOSAFROLE KEPONE METHALENE A - NAPHTHALENE A - NAPHTHALENE A - NITROANILINE A - NITROGUINOLINE - 1 - OXIDE N - NITROSODIETHYLAMINE </pre> | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 10         50         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10 |                               |



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|                                                  |                                          | "OC Report    | t"                           |                      |                  |                  |                  |
|--------------------------------------------------|------------------------------------------|---------------|------------------------------|----------------------|------------------|------------------|------------------|
| Title:                                           | Water Blank                              |               |                              |                      |                  |                  |                  |
| Batch:<br>Analysis Method:<br>Extraction Method: | ALW024<br>8270 / SW-846<br>3520 / SW-846 | , 3rd Edition | n, September<br>n. September | 1986 and<br>1986 and | Rev. 1<br>Rev. 1 | , July<br>, July | 1992.<br>, 1992. |
| Exclusion Method:                                |                                          | , 510 Ballero | ,                            |                      |                  | <u> </u>         | ·                |
|                                                  |                                          |               | _ 、                          | <b>.</b> .           |                  | · .              |                  |
| Parameters:                                      |                                          | Units:        | Results:                     | Report               | ing Li           | mits:            |                  |
| N-NITROSODI-N-BUTY                               | LAMINE                                   | UG/L          | ND                           | 10                   |                  |                  |                  |
| N-NITROSODI N BOIL                               |                                          | ŬĜ/L          | ND                           | 10                   |                  |                  |                  |
| N-NITROSOMETHYLETH                               |                                          | ŬĠ/Ĺ          | ND                           | 10                   |                  |                  |                  |
| N-N1TROSOMETRIBET                                | E                                        | UG/L          | ND                           | 10                   |                  |                  |                  |
| N-NITROSOMORPHOLIN                               | E                                        | UG/L          | ND                           | 10                   |                  |                  |                  |
| N-NITROSOPIPERIDIN                               |                                          |               | ND                           | 10                   |                  |                  |                  |
| N-NITROSOPYRROLIDI                               | NE                                       | UG/L          |                              |                      |                  |                  |                  |
| PARATHION                                        |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| PENTACHLOROBENZENE                               |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| PENTACHLOROETHANE                                |                                          | UG/L          | NÐ                           | 10                   |                  |                  |                  |
| PENTACHLORONITROBE                               | NZENE                                    | UG/L          | ND                           | 10                   |                  |                  |                  |
| PHENACETIN                                       |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| PHENANTHRENE                                     |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| 2-PICOLINE                                       |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| P-PHENYLENEDIAMINE                               |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| PRONAMIDE                                        |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| PYRENE                                           |                                          | ŪĠ/L          | ND                           | 10                   |                  |                  |                  |
| PYRIDINE                                         |                                          | ŬĜ/L          | ND                           | 10                   |                  |                  |                  |
| SAFROLE                                          |                                          | ŬG/L          | ND                           | 10                   |                  |                  |                  |
| SULFOTEPP                                        |                                          | ŬĜ/L          | ND                           | 10                   |                  |                  |                  |
| 1,2,4,5-TETRACHLOR                               | ODENTINE                                 | UG/L          | ND                           | 10                   |                  |                  |                  |
|                                                  | OBENZENE                                 | UG/L          | ND                           | ĩŏ                   |                  |                  |                  |
| THIONAZIN                                        |                                          | UG/L          | ND                           | îŏ                   |                  |                  |                  |
| O-TOLUIDINE                                      | 17 PMP                                   | UG/L          | ND                           | 10                   |                  |                  |                  |
| 1,2,4 TRICHLOROBEN                               | D                                        | UG/L<br>UG/L  | ND                           | 10                   |                  |                  |                  |
| SYM-TRINITROBENZEN                               |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| 0,0,0-TRIETHYL PHC                               | SPHORUTHIATE                             |               | ND                           | 10 .                 |                  |                  |                  |
| BENZIDINE                                        |                                          | UG/L<br>UG/L  | ND                           | 10                   |                  |                  |                  |
| BIS (2-CHLOROISOPRC                              | DPYL) ETHER                              | 007.0         | ND                           | 10                   |                  |                  |                  |
| 2-(SEC_BUTYL)4,6-D                               | INTRO-                                   |               | ND                           | 10                   |                  |                  |                  |
| PHENOL (DINOSEB)                                 |                                          | UG/L          | ND                           | 10                   |                  |                  |                  |
| N-NITROSO-DI-N-PRC                               | PYLAMINE                                 | UG/L          | ND                           | 10                   | ~                |                  |                  |
| 2-FLUOROBIPHENYL                                 |                                          | %REC/SUR      |                              | 43-11                |                  |                  |                  |
| TERPHENYL-D14                                    |                                          | %REC/SUF      | R 64                         | 33-12                |                  |                  |                  |
| NITROBENZENE-D5                                  |                                          | %REC/SUF      |                              | 35-11-               |                  |                  |                  |
| 2 - FLUOROPHENOL                                 |                                          | %REC/SUF      |                              | 21-10                |                  |                  |                  |
| PHENOL-D6                                        |                                          | %REC/SUF      | R 50                         | 10-10                |                  |                  |                  |
| 2,4,6-TRIBROMOPHEN                               | IOL                                      | %REC/SUF      | R 45                         | 10-12                | 3                |                  |                  |
| ANALYST                                          |                                          | INITIALS      | S PL                         |                      |                  |                  |                  |
|                                                  |                                          |               |                              |                      |                  |                  |                  |

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[0) Page 4 Date 10-Apr-96

| Late:List:Analysis Method:B270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.Extraction Method:3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.Blank Id: ADate Analyzed:03-APR-96Date Extracted:19-MAR-95Parameters:Units:Results:P-CHLORO-M-CRESOLUG/KGND1002-CHLORO-HENOLUG/KGND1002-CHLORO-HENOLUG/KGND10102-CHLORO-HENOLUG/KGND10102-CHLORO-HENOLUG/KGND10102-CHLORO-HENOLUG/KGND10102-CHLOROPHENOLUG/KGND10102-OTHTRY-PHENOLUG/KGND10102-OTHTRO-PHENOLUG/KGND2-OTHTRO-PHENOLUG/KGND2-OTHTRO-PHENOLUG/KGND2-ACTUALROPHENOLUG/KGND2-ACTUALROPHENOLUG/KGND2-ACTUALROPHENOLUG/KGND2-ACTUALANINOPUCORENEUG/KGND2-ACTUALANINOPUCORENEUG/KGND2-ACTUALANINOPUCORENEUG/KGND2-ACTUALANINOPUCORENEUG/KGND2-ACTUALANINOPUCORENEUG/KGND2-ACTUALANINOPUCORENEUG/KGND2-ACTUALANINOPUCORENEUG/KGND2-ACTUALANINOPUCORENEUG/KGND4-ACTUALANINOPUCORENE <th></th> <th>Title:</th> <th>Soil Bl</th> <th>ank</th> <th>"QC</th> <th>C Report"</th> <th></th> <th></th> <th></th> <th></th> <th>Date</th> <th>e 10-<i>P</i></th> <th>Apr-96</th>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | Title:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Soil Bl                                                                                                                                              | ank      | "QC        | C Report"                                                    |                                                                                 |              |                                         |              | Date     | e 10- <i>P</i> | Apr-96         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|--------------|-----------------------------------------|--------------|----------|----------------|----------------|
| Parameters:         Units:         Results:         Reporting Limits:           P-CHLORO-M-CRESOL         UG/KG         ND         10           2-CHLOROPHENOL         UG/KG         ND         10           C-CRESOL         UG/KG         ND         10           C-CRESOL         UG/KG         ND         10           2.4 -DICHCOROPHENOL         UG/KG         ND         10           2.4 -DICHCOROPHENOL         UG/KG         ND         10           2.4 -DICHCOROPHENOL         UG/KG         ND         10           2.4 -DITROPHENOL         UG/KG         ND         10           2.4 -S -TRICHLOROPHENOL         UG/KG         ND         10           2.4 -S -TRICHLOROPHENOL         UG/KG         ND         10           2.4 -S -TRICHLOROPHENOL         UG/KG         ND         10           ACENAPHTHYLENE         UG/KG         ND         10           ACENAPHTHYLENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | Batch:<br>Analysis Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ALS021<br>8270 / 2                                                                                                                                   | SW-846.  | 3rd<br>3rd | Edition,<br>Edition,                                         | September<br>September                                                          | 1986<br>1986 | and<br>and                              | Rev.<br>Rev. | 1,<br>1, | July<br>July,  | 1992.<br>1992. |
| P-CHLORO-M-CRESOL UG/KG ND 10<br>2-CHLOROPHENOL UG/KG ND 10<br>-CRESOL UG/KG ND 10<br>2.4 - DICLOROPHENOL UG/KG ND 10<br>2.4 - DICHLOROPHENOL UG/KG ND 10<br>2.4 - DICHLOROPHENOL UG/KG ND 10<br>2.4 - DIMITRO-O-CRESOL UG/KG ND 10<br>2.3 - A (- TETRACHLOROPHENOL UG/KG ND 10<br>2.4 - DIMITRO-O-CRESOL UG/KG ND 10<br>2.3 - 4 (- TETRACHLOROPHENOL UG/KG ND 10<br>2.4 - 5 - TRICHLOROPHENOL UG/KG ND 10<br>2.4 - 5 - TRICHLOROPHENOL UG/KG ND 10<br>2.4 - 5 - TRICHLOROPHENOL UG/KG ND 10<br>- CENAPHTHENE UG/KG ND 10<br>- CENAPHTHENE UG/KG ND 10<br>- CENAPHTHENE UG/KG ND 10<br>- CECTOPHENOL br>- CECTOPHENOL UG/KG ND 10<br>- CECTOPHENOL<br>- CECTOPHENOL UG/KG ND 10<br>- CECTOPHENOL UG/KG ND 10<br>- CECTOPHENOL<br>- CECTOPHENOL UG/KG ND 10<br>- CECTOPHENOL<br>- CENAPHTHENE<br>- CELOROPHENUL<br>- CENAPHTHENE<br>- CELOROPHENUL<br>- CENAPHTHENE<br>- CELOROPHENUL<br>- CELORO |            | Blank Id: A Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | e Analyz                                                                                                                                             | ed: 03-2 | APR - S    | 96 Dat                                                       | e Extracted                                                                     | d: 19-       | -MAR                                    | -96          |          |                |                |
| 2-CHLOROPHENGL         UG/KG         ND         10           M.P. CRESOL         UG/KG         ND         10           M.P. CRESOL         UG/KG         ND         10           2.4 - DICHLOROPHENOL         UG/KG         ND         10           2.4 - DINTRO-O-CRESOL         UG/KG         ND         10           2.4 - DINITRO-O-CRESOL         UG/KG         ND         10           2.4 - TERCHLOROPHENOL         UG/KG         ND         10           2.3 4.4 - TETRACHLOROPHENOL         UG/KG         ND         10           2.4 .5 - TRICHLOROPHENOL         UG/KG         ND         10           2.4 .5 - TRICHLOROPHENOL         UG/KG         ND         10           ACENAPHTHENE         UG/KG         ND         10           ACENAPHTHYLENE         UG/KG         ND         10           ACENAPHTHYLENE         UG/KG         ND         10           ACENAPHTHYLENE         UG/KG         ND         10           ACENAPHTHYLENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                      |          | Ur         | nits:                                                        | Results:                                                                        | Re           | eport                                   | ting         | Lim      | its:           |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <u>)</u> . | 2-CHLOROPHENOL<br>O-CRESOL<br>M, P CRESOL<br>2,4-DICHLOROPHENOL<br>2,6-DICHLOROPHENOL<br>2,4-DIMETHYLPHENOL<br>4,6-DINITRO-O-CRESO<br>2,4-DINITROPHENOL<br>2-NITROPHENOL<br>4-NITROPHENOL<br>PENTACHLOROPHENOL<br>PHENOL<br>2,3,4,6-TETRACHLORO<br>2,4,5-TRICHLOROPHEN<br>2,4,6-TRICHLOROPHEN<br>ACENAPHTHENE<br>ACENAPHTHENE<br>ACENAPHTHYLENE<br>ACETOPHENONE<br>2-ACETYLAMINOFLUOR<br>4-AMINOBIPHENYL<br>ANILINE<br>ANTHRACENE<br>ARAMITE<br>BENZO (A) ANTHRACE<br>BENZO (A) PYRENE<br>BENZO (A) PYRENE<br>BENZO (A) PYLORANT<br>BENZO (A) FLUORANT<br>BENZO (A) FLUORANT<br>BENZO (A) FLUORANT<br>BENZO (A) FLUORANT<br>BENZO (A) FLUORANT<br>BIS (2-CHLOROETHYL)<br>BIS (2-CHLOROETHYL)<br>BIS (2-CHLOROETHYL)<br>BIS (2-CHLOROETHYL)<br>P-CHLOROANILINE<br>CHLOROBENZILATE<br>2-CHLOROANILINE<br>CHLOROBENZILATE<br>2-CHLOROANILINE<br>CHLOROPHENYL PHEN<br>BITYLBENZYL PHEN<br>DIALLATE<br>DIBENZO (A, H) ANTH<br>DIBENZOFURAN<br>1,2-DICHLOROBENZEN | OPHENOL<br>NOL<br>NOL<br>ENE<br>HENE<br>HENE<br>HENE<br>HYLETHYL<br>)METHANE<br>ETHER<br>HTHALATE<br>YL ETHER<br>ATE<br>E<br>NYL ETHE<br>RACENE<br>E | ) ETHER  |            | G/KG<br>G/KG<br>G/KG<br>G/KG<br>G/KG<br>G/KG<br>G/KG<br>G/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N |              | 000000000000000000000000000000000000000 |              |          |                |                |

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| Batch:       ALSO21<br>Analysis Method:       Strod / SW-846, 3rd Edition.       September 1986 and Rev. 1, July 1992.         Extraction Method:       3520 / SW-846, 3rd Edition.       September 1986 and Rev. 1, July. 1992.         Parameters:       Units:       Results:       Reporting Limits:         1.4-DICHLOROBENZENE       UG/KG       ND       10         3.1. DICHLOROBENZENE       UG/KG       ND       10         DIMETHOATE       UG/KG       ND       10         P.DIMETHYLANINOAZOBENZENE       UG/KG       ND       10         J.2. DIMETHYLBENZIDINE       UG/KG       ND       10         J.3. DIMETHYLBENZIDINE       UG/KG       ND       10         J.3. DIMETHYLBENZIDINE       UG/KG       ND       10         J.3. DIMETHYLBENZIDINE       UG/KG       ND       10         J.4. DIMETHYLBENZIDINE       UG/KG       ND       10         J.4. DIMITROTOLUENE       UG/KG       ND       10                                                                                                                                                                                                          | Title: Soil Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | "QC Report"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Date 10-Apr-96                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 1.4 - DICHLOROBENZENE         UG/KG         ND         10           3.3 * - DICHLOROBENZIDINE         UG/KG         ND         10           DIETHYLPHTHALATE         UG/KG         ND         10           DIETHYLPHTHALATE         UG/KG         ND         10           P-OIMETHYLENINATE         UG/KG         ND         10           7.12 - DIMETHYLENZ(A) ANTHRACENE         UG/KG         ND         10           7.13 * - DIMETHYLENZIDINE         UG/KG         ND         10           1.4 · DIMETHYLENTALATE         UG/KG         ND         10           DIMETHYLPHTHALATE         UG/KG         ND         10           DIMETHYLPHTHALATE         UG/KG         ND         10           J.1 * - DIMETHYLENTHALATE         UG/KG         ND         10           DIMETHYLPHTHALATE         UG/KG         ND         10           DITAN-OCTYLPHTHALATE         UG/KG         ND         10           2.4 - DINITROTOLUENE         UG/KG         ND         10           DIT-N-OCTYLPHTHALATE         UG/KG         ND         10           PHUR         UG/KG         ND         10           PHUNIATINE         UG/KG         ND         10 <td< td=""><td>Applycic Method, 8270 / SW-846</td><td>3rd Edition,<br/>3rd Edition,</td><td>September<br/>September</td><td>1986 and Rev<br/>1986 and Rev</td><td>. 1, July 1992.<br/>. 1, July, 1992.</td></td<> | Applycic Method, 8270 / SW-846                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3rd Edition,<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | September<br>September                                                          | 1986 and Rev<br>1986 and Rev                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | . 1, July 1992.<br>. 1, July, 1992. |
| 3.3       -DICHLOROBENZIDINE       UG/KG       ND       50         DIETHUATE       UG/KG       ND       10         DIETHUATE       UG/KG       ND       10         7.12       -DIMETHYLAMINOAZOBENZENE       UG/KG       ND       10         7.12       -DIMETHYLBENZIDINE       UG/KG       ND       10         7.12       -DIMETHYLBENZIDINE       UG/KG       ND       10         7.13       -DIMETHYLBENZIDINE       UG/KG       ND       10         0.3       -DIMETHYLBENZIDINE       UG/KG       ND       10         0.4       -ADIMETHYLBENZIDINE       UG/KG       ND       10         0.1       -DIMETHYLPHTHALATE       UG/KG       ND       10         0.1       NTEROTOLUENE       UG/KG       ND       10         2.4       -DINITROTOLUENE       UG/KG       ND       10         DIFHEYLAMIRE       UG/KG       ND       10       10         FHURAMINE       UG/KG       ND       10       10         FHURAMINE       UG/KG       ND       10       10         FHURAMINE       UG/KG       ND       10       10         FLUORANTHENE       UG/KG                                                                                                                                                                                                                                                                                                            | Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Results:                                                                        | Reporting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Limits:                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3,3'-DICHLOROBENZIDINE<br>DIETHYLPHTHALATE<br>DIMETHYLPHTHALATE<br>DIMETHYLPHTHALATE<br>P-DIMETHYLBENZ(A)ANTHRACENE<br>3,3'-DIMETHYLBENZ(A)ANTHRACENE<br>3,3'-DIMETHYLPHENETHYLAMINE<br>DIMETHYLPHTHALATE<br>DI-N-BUTYLPHTHALATE<br>DI-N-BUTYLPHTHALATE<br>M-DINITROBENZENE<br>2,4-DINITROTOLUENE<br>2,6-DINITROTOLUENE<br>DI-N-OCTYLPHTHALATE<br>DIPHENYLAMINE<br>ETHYL METHANESULFONATE<br>FAMPHUR<br>FLUORANTHENE<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROPHENE<br>HEXACHLOROPHENE<br>HEXACHLOROPHENE<br>HEXACHLOROPHENE<br>INDENO (1,2,3-CD) PYRENE<br>ISODRIN<br>ISOPHORONE<br>ISOSAFROLE<br>KEPONE<br>METHAPYRILENE<br>3-METHYLCHOLANTHRENE<br>METHYL METHANESULFONATE<br>1-METHYLNAPHTHALENE<br>2-METHYLNAPHTHALENE<br>1.4-NAPHTHQUINONE<br>1-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>3-NITROANILINE<br>4-NITROQUINOLINE-1-OXIDE<br>N-NITROSODIETHYLAMINE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 50         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10 |                                     |

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|                                                                                         |                              |                  | C Report"      |           |      |       |      |     |      | -    |     |
|-----------------------------------------------------------------------------------------|------------------------------|------------------|----------------|-----------|------|-------|------|-----|------|------|-----|
| Title:<br>Batch:                                                                        | Soil Blank<br>ALS021         |                  |                |           | 1000 | and   | Dou  | 1   | ามโพ | 199  | 2   |
| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method:                              | 8270 / SW-84<br>3520 / SW-84 | 5, 3rd<br>5, 3rd | Edition,       | September | 1986 | and   | Rev. | 1,  | July | , 19 | 92. |
|                                                                                         |                              |                  |                |           |      |       |      |     |      |      |     |
| Parameters:                                                                             |                              |                  | nits:          | Results:  | R    | epor  | ting | Lim | its: |      |     |
| N-NITROSODI-N-BUTYLAMINE                                                                |                              | U                | G/KG           | ND        | 1    | 0     |      |     |      |      |     |
| N-NITROSODIPHENYLAMINE                                                                  |                              | Ů                | G/KG           | ND        | 1    |       |      |     |      |      |     |
| N-NITROSOMETHYLETHYLAMINE                                                               |                              | U                | G/KG           | ND        | 1    |       |      |     |      |      |     |
| N-NITROSOMORPHOLINE                                                                     |                              |                  | G/KG           | ND        | 1    |       |      |     |      |      |     |
| N-NITROSOPIPERIDINE                                                                     |                              |                  | G/KG           | ND        | 1    |       |      |     |      |      |     |
| N-NITROSOPYRROLIDINE                                                                    |                              |                  | G/KG           | ND        | 1    | -     |      |     |      |      |     |
| PARATHION                                                                               |                              |                  | G/KG           | ND        | 1    |       |      |     |      |      |     |
| PENTACHLOROBENZENE                                                                      |                              |                  | IG/KG          | ND<br>ND  | 1    |       |      |     |      |      |     |
| PENTACHLOROETHANE                                                                       |                              |                  | IG/KG<br>IG/KG | ND        | 1    | -     |      |     |      |      |     |
| PENTACHLORONITROBENZENE                                                                 |                              |                  | IG/KG          | ND        |      | ŏ     |      |     |      |      |     |
| PHENACETIN                                                                              |                              |                  | IG/KG          | ND        |      | õ     |      |     |      |      |     |
| PHENANTHRENE                                                                            |                              |                  | IG/KG          | ND        |      | Ó     |      |     |      |      |     |
| 2-PICODING<br>D DUGNVI ENGDIAMINE                                                       |                              |                  | JG/KG          | ND        | 1    | 0     |      |     |      |      |     |
| DDONAMIDE                                                                               |                              |                  | JG/KG          | ND        |      | 0     |      |     |      |      |     |
| PYPENE                                                                                  |                              | t                | JG/KG          | ND        |      | 0     |      |     |      |      |     |
| PHENANTHRENE<br>2 - PICOLINE<br>P - PHENYLENEDIAMINE<br>PRONAMIDE<br>PYRENE<br>PYRIDINE |                              |                  | JG/KG          | ND        |      | .0    |      |     |      |      |     |
| SAFROLE                                                                                 |                              |                  | JG/KG          | ND        |      | 0     |      |     |      |      |     |
| SULFOTEPP                                                                               |                              |                  | JG/KG          | ND        |      | 0     |      |     |      |      |     |
| 1,2,4,5-TETRACHLOROBENZENE                                                              |                              |                  | JG/KG          | ND        |      | 0     |      |     |      |      |     |
| THIONAZIN                                                                               |                              |                  | JG/KG          | ND<br>ND  |      | .0    |      |     |      |      |     |
| O-TOLUIDINE                                                                             |                              | l<br>r           | JG/KG<br>JG/KG | ND        |      | .0    |      |     |      |      |     |
| 1,2,4 TRICHLOROBENZENE                                                                  |                              |                  | JG/KG          | ND        |      | .0    |      |     |      |      |     |
| SYM-TRINITROBENZENE                                                                     |                              |                  | JG/KG          | ND        |      | Ŏ     |      |     |      |      |     |
| O,O,O-TRIETHYL PHOSPHOROTHIATE<br>BENZIDINE                                             |                              |                  | JG/KG          | ND        |      | 0     |      |     |      |      |     |
| BIS (2 - CHLOROISOPRO                                                                   | OPYL) ETHER                  |                  | JG/KG          | ND        | 1    | 0     |      |     |      |      |     |
| 2-(SEC BUTYL)4,6-1                                                                      | DINITRO-                     | 1                | JG/KG          | ND        | 1    | 10    |      |     |      |      |     |
| PHENOL (DINOSEB)                                                                        | NOVE AMENIE                  |                  | JG/KG          | ND        |      | LÕ    |      |     |      |      |     |
| N-NITROSO-DI-N-PROPYLAMINE                                                              |                              |                  | REC/SURR       |           |      | 30-11 | 15   |     |      |      |     |
| 2-FLUOROBIPHENYL<br>TERPHENYL-D14                                                       |                              |                  | *REC/SURR      |           |      | 8-13  |      |     |      |      |     |
| NITROBENZENE-D5                                                                         |                              |                  | *REC/SURR      | 66        |      | 23-12 |      |     |      |      |     |
| 2 - FLUOROPHENOL                                                                        |                              |                  | %REC/SURR      |           |      | 25-12 |      |     |      |      |     |
| PHENOL-D6                                                                               |                              |                  | *REC/SURR      | 68        |      | 24-11 |      |     |      |      |     |
| 2,4,6-TRIBROMOPHENOL                                                                    |                              |                  | %REC/SURR      | 70        | -    | 19-12 | 22   |     |      |      |     |
| ANALYST                                                                                 |                              |                  | INITIALS       | PL        |      |       |      |     |      |      |     |
|                                                                                         |                              |                  |                |           |      |       |      |     |      |      |     |

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### "OC Report"

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|                    | "QC Report"                                        |                               |
|--------------------|----------------------------------------------------|-------------------------------|
| Title:             | Soil Reagent                                       |                               |
| Batch:             | ALS021                                             |                               |
| Analysis Method:   | 8270 / SW-846, 3rd Edition, September 1986 and Rev | r. 1, July 1992.              |
| Extraction Method: | 3520 / SW-846, 3rd Edition, September 1986 and Rev | <sup>r</sup> . 1, July, 1992. |

| RS Date Analyzed:<br>RSD Date Analyzed:                                                                                                                                                                                               | 03-APR-96<br>03-APR-96                                                                         |                                                                                                          |                                                                                    |                                                                        | ate Extra<br>Date Extr                                                                              |                                                                                           |                                                                          | - MAR -<br>- MAR -                                                            |                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZENE<br>N-NITRO-DI-N-PROPYLAMINE<br>1,2,4 TRICHLOROBENZENE<br>4-CHLORO-3-METHYLPHENOL<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | Spike<br>Added<br>3333<br>1667<br>1667<br>1667<br>3333<br>1667<br>3333<br>1667<br>3333<br>1667 | Sample<br>Conc<br><330<br><330<br><330<br><330<br><330<br><330<br><330<br><1700<br><330<br><1700<br><330 | RS<br>Conc<br>2200<br>1200<br>1200<br>2400<br>1333<br>2300<br>1167<br>2700<br>1067 | RS<br>%Rec<br>66<br>72<br>66<br>72<br>80<br>69<br>70<br>81<br>81<br>64 | RSD<br>Conc<br>2500<br>2533<br>1400<br>1200<br>1367<br>2633<br>1367<br>2400<br>1233<br>2800<br>1133 | RSD<br>%Rec<br>75<br>84<br>72<br>82<br>79<br>82<br>79<br>82<br>79<br>82<br>74<br>84<br>68 | RPD<br>13<br>14<br>15<br>9<br>13<br>9<br>2<br>4<br>6<br>4<br>6<br>4<br>6 | RPD<br>Lmts<br>27<br>25<br>25<br>25<br>24<br>26<br>19<br>50<br>21<br>20<br>23 | Rec<br>Lmts<br>5-112<br>38-123<br>50-111<br>39-121<br>49-115<br>37-128<br>53-115<br>32-126<br>56-118<br>31-146<br>52-115 |
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>2_4,6-TRIBROMOPHENOL                                                                                                            |                                                                                                |                                                                                                          |                                                                                    | 75<br>84<br>92<br>76<br>77<br>79                                       |                                                                                                     | 84<br>89<br>94<br>86<br>86<br>81                                                          |                                                                          |                                                                               | 23-120<br>30-115<br>18-137<br>24-113<br>25-121<br>19-122                                                                 |

Comments:

Notes:

s: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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21-100

10-123

|                                          |      |            | "QC Repo                 | ort"       |                  |                    | 2.                 | acc         | ro np.        |                              |
|------------------------------------------|------|------------|--------------------------|------------|------------------|--------------------|--------------------|-------------|---------------|------------------------------|
| Batch:                                   |      | 346, 3rd   | Edition, S<br>Edition, S | September  | r 1986<br>r 1986 | and Rev<br>and Rev | . 1, Ju<br>. 1, Ju | ly l<br>ly, | 992.<br>1992. |                              |
| Dry Weight %: N/A<br>Sample Spiked: 6032 | 70-1 |            | Analyzed:<br>e Analyzed  |            |                  |                    | te Extrate Extr    |             |               | 3 - MAR - 96<br>3 - MAR - 96 |
|                                          |      | Spike      | Sample                   | MS         | MS               | MSD                | MSD                |             | RPD           | Rec                          |
| Parameters:                              |      | Added      | Conc                     | Conc       | %Rec             |                    | %Rec               |             |               | Lmts<br>5-112                |
| PHENOL<br>2-CHLOROPHENOL                 |      | 400<br>400 | <10<br><10               | 156<br>176 | 39<br>44         | 156<br>172         | 39<br>43           | 0<br>2      | 38<br>25      | 38-120                       |
| 1,4-DICHLOROBENZENE                      | I.   | 200        | <10                      | 92         | 46               | 92                 | 46                 | Õ           | 27            | 39-112                       |
| N-NITRO-DI-N-PROPYL                      |      | 200        | <10                      | 88         | 44               | 88                 | 44                 | ŏ           | 30            | 32-125                       |
| 1,2,4 TRICHLOROBENZ                      |      | 200        | <10                      | 100        | 50               | 96                 | 48                 | 4           | 30            | 44-118                       |
| 4 - CHLORO - 3 - METHYLPH                |      | 400        | <10                      | 168        | 42               | 172                | 43                 | 2           | 23            | 42-131                       |
| ACENAPHTHENE                             |      | 200        | <10                      | 104        | 52               | 104                | 52                 | 0           | 21            | 47-131                       |
| 4-NITROPHENOL                            |      | 400        | < 50                     | 168        | 42               | 156                | 39                 | 7           | 36            | 1-116                        |
| 2,4-DINITROTOLUENE                       |      | 200        | <10                      | 88         | 44               | 88                 | 44                 | 0           | 22            | 39-138                       |
| PENTACHLOROPHENOL                        |      | 400        | <50                      | 144        | 36               | 144                | 36                 | 0           | 36            | 14-164                       |
| PYRENE                                   |      | 200        | <10                      | 112        | 56               | 104                | 5 <b>2</b>         | 7           | 21            | 52-115                       |
| Surrogates:                              |      |            |                          |            | 6.0              |                    |                    |             |               |                              |
| NITROBENZENE-D5                          |      |            |                          |            | 62               |                    | 65                 |             |               | 35-114                       |
| 2-FLUOROBIPHENYL                         |      |            |                          |            | 62               |                    | 67                 |             |               | 43-116                       |
| TERPHENYL-D14                            |      |            |                          |            | 58               |                    | 63                 |             |               | 33-124                       |

TERPHENYL-D14 PHENOL-D6 2-FLUOROPHENOL 2-4,6-TRIBROMOPHENOL

Comments:

Notes:

s: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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| •                                                                                                                                                                                                                     |                                                     |                                                                                                    |                                                                                                  |                                                                              |                                  |                                                                              | [<br>D:                                                                 | 0) Pa<br>ate 1                                                      | age 1<br>10-Ap                                                                | 0<br>r-96                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                       |                                                     |                                                                                                    | "QC Repo                                                                                         | rt"                                                                          |                                  |                                                                              |                                                                         |                                                                     | · [-                                                                          |                                                                                                                          |
| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method:                                                                                                                                                            | Soil Matrix<br>ALS021<br>8270 / SW-8<br>3520 / SW-8 | 846, 3rd                                                                                           |                                                                                                  | eptember                                                                     | 1986<br>1986                     | and Rev<br>and Rev                                                           | 7. 1, Ju<br>7. 1, Ju                                                    | ly 1<br>ly, 1                                                       | 992.<br>1992.                                                                 |                                                                                                                          |
| Dry Weight %: 74<br>Sample Spiked: 603                                                                                                                                                                                | 254-11                                              | MS Date<br>MSD Dat                                                                                 | e Analyzed:<br>te Analyzed                                                                       | 10-APR<br>: 10-APR                                                           | -96<br>-96                       |                                                                              | ite Extr<br>ate Ext                                                     |                                                                     |                                                                               | 9-MAR-96<br>9-MAR-96                                                                                                     |
| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZEN<br>N-NITRO-DI-N-PROPY<br>1,2,4 TRICHLOROBEN<br>4-CHLORO-3-METHYLP<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | LAMINE<br>ZENE<br>HENOL                             | Spike<br>Added<br>44<br>22<br>22<br>22<br>44<br>22<br>44<br>22<br>44<br>22<br>44<br>22<br>44<br>22 | Sample<br>Conc<br><330<br><330<br><330<br><330<br><330<br><330<br><1700<br><330<br><1700<br><330 | MS<br>Conc<br>29<br>31<br>16<br>12<br>15<br>26<br>16<br>20<br>15<br>27<br>15 | MS                               | MSD<br>Conc<br>25<br>28<br>16<br>9<br>15<br>20<br>14<br>14<br>13<br>23<br>13 | MSD<br>%Rec<br>56<br>42<br>66<br>42<br>66<br>44<br>32<br>56<br>52<br>58 | RPD<br>15<br>11<br>3<br>25<br>6<br>27<br>12<br>34<br>16<br>14<br>19 | RPD<br>Lmts<br>22<br>27<br>27<br>27<br>21<br>28<br>20<br>42<br>23<br>33<br>31 | Rec<br>Lmts<br>40-103<br>39-104<br>43-109<br>29-117<br>49-126<br>32-117<br>47-126<br>1-124<br>43-110<br>14-144<br>52-115 |
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>2.4,6-TRIBROMOPHEN                                                                                              | OL                                                  |                                                                                                    |                                                                                                  |                                                                              | 62<br>64<br>70<br>57<br>60<br>53 |                                                                              | 70<br>74<br>79<br>67<br>71<br>64                                        |                                                                     |                                                                               | 23-120<br>30-115<br>18-137<br>24-113<br>25-121<br>19-122                                                                 |

Comments:

Notes:

3: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 11 Date 10-Apr-96

#### Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUTUG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD. ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS. DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS. CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLMO1.8, AUGUST 1991.

| LP = LEVERNE PETERSON RW = RITA WINGO        |  |
|----------------------------------------------|--|
| DWB = DAVID BOWERS LD = LARRY DILMORE        |  |
| DB = DENNIS BESON DC = DAVID CELESTIAL       |  |
| LL = LANCE LARSON RB = RAFAEL BARRAZA        |  |
| JA = JENNIFER ALEXANDER PL = PAUL LESCHENSKY |  |

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Quality Control Report

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Analysis: SW 846 8260 TABLE SIX

Accession: 603602 Client: CSX TRANSPORTATION Project Number: Project Name: Project Location: Department: 4365B 4365B CSXT-GREENVILLE GREENVILLE, SC ORGANIC/MS

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[0) Page 1 Date 12-Apr-96

"QC Report"

Low Soil Blank Title: Batch: MAS038 Analysis Method: 8260 Extraction Method: N/A 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.

#### Blank Id: A Date Analyzed: 08-APR-96 Date Extracted: N/A

| Parameters:         Units:         Results:         Reporting Limits:           ACROLEIN         UG/KG         ND         100           ACETONE         UG/KG         ND         100           ACETONITRILE         UG/KG         ND         100           ACETONITRILE         UG/KG         ND         100           ACETONITRILE         UG/KG         ND         100           ALLYL CILORIDE         UG/KG         ND         5           BROMOCHLOROMETHANE         UG/KG         ND         5           BROMOGENZENE         UG/KG         ND         5           BROMOFORM         UG/KG         ND         5           BROMOFORM         UG/KG         ND         5           BROMOFORM         UG/KG         ND         5           CHLOROPRENE         UG/KG         ND         5           CHLOROPRE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Parameters:                  | Units: | Results: | Reporting Limits: |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------|----------|-------------------|
| ACETONE         UG/RG         ND         10           ACETONITRILE         UG/KG         ND         100           ACRYLONITRILE         UG/KG         ND         100           ACRYLONITRILE         UG/KG         ND         100           ALLYL CHLORIDE         UG/KG         ND         5           BROMOBENZENE         UG/KG         ND         5           BROMOPORMETHANE         UG/KG         ND         5           BROMOPORM         UG/KG         ND         5           BROMOPORM         UG/KG         ND         5           BROMOPORM         UG/KG         ND         5           CARBON DISULFIDE         UG/KG         ND         5           CHLOROPRENE         UG/KG         ND         5           CHLOROPETHANE         UG/KG         ND         5           CHLOROPETHANE         UG/KG         ND         5           1.2 DICHOROPETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ACROLEIN                     |        | ND       | 100               |
| ACETONITTRILE         UG/KG         ND         100           ACRYLONITRILE         UG/KG         ND         100           ALLYL CHLORIDE         UG/KG         ND         100           BROMOCHLOROMETHANE         UG/KG         ND         5           BROMOCHLOROMETHANE         UG/KG         ND         5           BROMOCHLOROMETHANE         UG/KG         ND         5           BROMOFORM         UG/KG         ND         5           BROMOFORM         UG/KG         ND         5           BROMOFORM         UG/KG         ND         5           BROMOFORM         UG/KG         ND         5           CARBON TETRACHLORIDE         UG/KG         ND         5           CHLOROPENE         UG/KG         ND         5           CHLOROPENE         UG/KG         ND         5           CHLOROPORM         UG/KG         ND         5           CHLOROPORM         UG/KG         ND         5           CHLOROPORAME         UG/KG         ND         5           CHLOROPORAME         UG/KG         ND         5           CHLOROPORAME         UG/KG         ND         5           CHLOROPOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ACETONE                      |        |          |                   |
| ACRYLONITRILE         OG/RC         ND         100           ALLYL CHLORIDE         UG/RC         ND         100           BENZENE         UG/RC         ND         5           BROMOENLOROMETHANE         UG/RC         ND         5           BROMOENZENE         UG/RC         ND         5           BROMOFORM         UG/RC         ND         5           BROMOFORM         UG/RC         ND         5           BROMOPENANE         UG/RC         ND         5           BROMOPENANE         UG/RC         ND         5           CHLOROPENE         UG/RC         ND         5           CARBON DISULFIDE         UG/RC         ND         5           CHLOROPENE         UG/RC         ND         5           CHLOROPENE         UG/RC         ND         5           CHLOROPENE         UG/RC         ND         5           CHLOROPENE         UG/RC         ND         5           CHLOROPENANE         UG/RC         ND         5           CHLOROPENANE         UG/RC         ND         5           CHLOROPENANE         UG/RC         ND         5           CHLOROPORANE         UG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ACETONE                      |        |          |                   |
| ALLYL CHLORIDE       UG/KG       ND       100         BENZENE       UG/KG       ND       5         BROMOCHLOROMETHANE       UG/KG       ND       5         BROMOCHLOROMETHANE       UG/KG       ND       5         BROMOFORM       UG/KG       ND       5         BROMOFORM       UG/KG       ND       5         BROMOFORM       UG/KG       ND       5         BROMOFENAME       UG/KG       ND       5         CARBON DISULFIDE       UG/KG       ND       5         CHLOROPEANE       UG/KG       ND       5         CHLOROPETHANE       UG/KG       ND       5         1.2 DIEROMOA-3-CHLOROPENENE       UG/KG       <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |        |          |                   |
| ALDID CHINDED       00'/SG       ND       5         BENZENE       UG/KG       ND       5         BROMOENZENE       UG/KG       ND       5         BROMOENZENE       UG/KG       ND       5         BROMOPTHANE       UG/KG       ND       5         BROMOPRM       UG/KG       ND       5         BROMOPRM       UG/KG       ND       5         CARBON DISULFIDE       UG/KG       ND       5         CARBON DISULFIDE       UG/KG       ND       5         CHLOROPRENE       UG/KG       ND       5         CHLOROPRENE       UG/KG       ND       5         CHLOROPRENE       UG/KG       ND       5         CHLOROPRENE       UG/KG       ND       5         CHLOROPORM       UG/KG       ND       5         CHLOROPORM       UG/KG       ND       5         CHLOROPORM       UG/KG       ND       5         CHLOROPTOLUENE       UG/KG       ND       5         CHLOROPTOLUENE       UG/KG       ND       5         1.2 DIENOMOETHANE       UG/KG       ND       5         1.2 DIENOMOETHANE       UG/KG       ND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | AUTOUTRIDE                   |        |          |                   |
| BROMOCHLOROMETHANE UG/KG ND 5<br>BROMOBENZENE UG/KG ND 5<br>BROMOBENZENE UG/KG ND 5<br>BROMOFORM UG/KG ND 5<br>BROMOFORM UG/KG ND 5<br>2-BUTANONE UG/KG ND 5<br>CARBON DISULFIDE UG/KG ND 5<br>CARBON TETRACHLORIDE UG/KG ND 5<br>CHLOROPRENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROTOLUENE UG/KG ND 5<br>CHLORODIBROMOMETHANE UG/KG ND 5<br>CLAUROTOLUENE UG/KG ND 5<br>CHLORODIBROMOMETHANE UG/KG ND 5<br>CLAUROTOLUENE UG/KG ND 5<br>1.2 DIBROMOSTHANE UG/KG ND 5<br>1.4 DICHLOROSENZENE UG/KG ND 5<br>1.4 DICHLOROSENZENE UG/KG ND 5<br>1.4 DICHLOROBENZENE UG/KG ND 5<br>1.4 DICHLOROBENZENE UG/KG ND 5<br>1.4 DICHLOROBENZENE UG/KG ND 5<br>1.3 DICHLOROBENZENE UG/KG ND 5<br>1.4 DICHLOROBENZENE UG/KG ND 5<br>1.2 DIBROMOSTHANE UG/KG ND 5<br>1.3 DICHLOROBENZENE UG/KG ND 5<br>1.3 DICHLOROBENZENE UG/KG ND 5<br>1.4 DICHLOROBENZENE UG/KG ND 5<br>1.2 DICHLOROBENZENE UG/KG ND 5<br>1.3 DICHLOROBENZENE UG/KG ND 5<br>1.3 DICHLOROPOPANE UG/KG ND 5<br>1.3 DICHLOROPOPANE UG/KG ND 5<br>1.4 DIC |                              |        |          |                   |
| BROMOBLOROUGHTHANE UG/KG ND 5<br>BROMODICHLOROMETHANE UG/KG ND 5<br>BROMOFORM UG/KG ND 5<br>BROMOMETHANE UG/KG ND 5<br>2-BUTANONE UG/KG ND 5<br>CARBON DISULFIDE UG/KG ND 5<br>CARBON TETRACHLORIDE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROMETHANE UG/KG ND 5<br>2-CHLOROTOLUENE UG/KG ND 5<br>2-CHLOROTOLUENE UG/KG ND 5<br>1.2 DIROMOMETHANE UG/KG ND 5<br>1.2 DIROMOMETHANE UG/KG ND 5<br>1.2 DIROMOMETHANE UG/KG ND 5<br>1.4 -DICHLOROPENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLORO-3 - CHLOROPROPANE UG/KG ND 5<br>1.3 -DIEROMO-3 - CHLOROPROPANE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.4 -DICHLOROBENZENE UG/KG ND 5<br>1.3 -DICHLOROPENENE UG/KG ND 5<br>1.4 -DICHLOROPENENE UG/KG ND 5<br>1.3 -DICHLOROPENENE UG/KG ND 5<br>1.3 -DICHLOROPENENE UG/KG ND 5<br>1.4 -METHACRYLANTENE UG/KG ND 5<br>1.4 -METHACRYLANTENE UG/KG ND 5<br>1.4 -METHACRYLANTENE                 |                              |        |          | 5                 |
| BROMODICHLOROMETHANE UG/KG ND 5<br>BROMOFICHANCAMETHANE UG/KG ND 5<br>BROMOFICHANCAMETHANE UG/KG ND 5<br>2-BUTANONE UG/KG ND 5<br>CARBON DISULFIDE UG/KG ND 5<br>CHLOROPRENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROFTHANE UG/KG ND 5<br>CHLOROFTHANE UG/KG ND 5<br>CHLOROTOLUENE UG/KG ND 5<br>1,2 DICHLOROFTHYLENE UG/KG ND 5<br>1,2 DIBROMOETHANE UG/KG ND 5<br>1,2 DIBROMOETHANE UG/KG ND 5<br>1,4 - DICHLOROPENZENE UG/KG ND 5<br>1,4 - DICHLOROPENZENE UG/KG ND 5<br>1,4 - DICHLOROPENZENE UG/KG ND 5<br>1,2 - DICHLOROPENZENE UG/KG ND 5<br>1,4 - DICHLOROPENZENE UG/KG ND 5<br>1,4 - DICHLOROPENZENE UG/KG ND 5<br>1,2 - DICHLOROPENZENE UG/KG ND 5<br>1,3 - DICHLOROPENZENE UG/KG ND 5<br>1,2 - DICHLOROPENZENE UG/KG ND 5<br>1,3 - DICHLOROPENZENE UG/KG ND 5<br>1,3 - DICHLOROPENZENE UG/KG ND 5<br>1,2 - DICHLOROPENZENE UG/KG ND 5<br>1,3 DICHLOROPENZENE UG/KG ND 5<br>1,1 - DICHLOROPENZENE UG/KG ND 5<br>1,2 - DICHLOROPENZENE UG/KG ND 5<br>1,2 - DICHLOROPENZENE UG/KG ND 5<br>2 - A - METHACRULATE UG/KG ND 5<br>2 - A - METHACRULATE UG/KG ND 5<br>2 - HEXANONE UG/KG ND 5             | BROMODENIZENIE               |        |          | 2<br>E            |
| BROMODIANDACOMPTIANE UG/KG ND 5<br>BROMOMETHANE UG/KG ND 5<br>2-BUTANONE UG/KG ND 5<br>CARBON DISULFIDE UG/KG ND 5<br>CARBON TETRACHLORIDE UG/KG ND 5<br>CHLOROPRENE UG/KG ND 5<br>CHLOROPENE UG/KG ND 5<br>CHLOROPENE UG/KG ND 5<br>CHLOROPORM UG/KG ND 5<br>CHLOROPORTHANE UG/KG ND 5<br>2-CHLOROTOLUENE UG/KG ND 5<br>2-CHLOROTOLUENE UG/KG ND 5<br>CHLOROTOLUENE UG/KG ND 5<br>CHLOROTOLUENE UG/KG ND 5<br>1.2 DIRCHLOROETHANE UG/KG ND 5<br>1.2 DIRCHLOROETHANE UG/KG ND 5<br>1.4 - DICHLOROPENE UG/KG ND 5<br>1.4 - DICHLOROPENE UG/KG ND 5<br>1.3 - DIRCHORO-3 - CHLOROPROPANE UG/KG ND 5<br>1.4 - DICHLOROEENZENE UG/KG ND 5<br>1.4 - DICHLOROBENZENE UG/KG ND 5<br>1.3 - DICHLOROBENZENE UG/KG ND 5<br>1.4 - DICHLOROEENZENE UG/KG ND 5<br>1.3 - DICHLOROPENTANE UG/KG ND 5<br>1.4 - DICHLOROPENZENE UG/KG ND 5<br>1.4 - DICHLOROPENZENE UG/KG ND 5<br>1.3 - DICHLOROPENZENE UG/KG ND 5<br>1.4 - DICHLOROPENZENE UG/KG ND 5<br>1.3 - DICHLOROPENZENE UG/KG ND 5<br>1.3 - DICHLOROPENZENE UG/KG ND 5<br>1.4 - DICHLOROPENZENE UG/KG ND 5<br>1.4 - DICHLOROPENZENE UG/KG ND 5<br>1.3 - DICHLOROPENZENE UG/KG ND 5<br>1.4 - DICHLOROPENZENE UG/KG ND 5<br>1.3 - DICHLOROPENZENE UG/KG ND 5<br>1.4 - METHACRULATE UG/KG ND 5<br>1.4 - METHACRULATE UG/KG ND 5<br>1.4 - METHACRULATE UG/KG ND 5<br>1.4 - DICHLORO                   |                              |        |          |                   |
| BROMONETHANEUG/KGNDS2-BUTANONEUG/KGNDS2-BUTANONEUG/KGNDSCARBON DISULFIDEUG/KGNDSCARBON DISULFIDEUG/KGNDSCHLOROPRENEUG/KGNDSCHLOROBENZENEUG/KGNDSCHLOROFORMUG/KGNDSCHLOROFORMUG/KGNDSCHLOROTOLUENEUG/KGNDS2-CHLOROTOLUENEUG/KGNDS2-CHLOROTOLUENEUG/KGNDS2-CHLOROTOLUENEUG/KGNDS2-CHLOROTOLUENEUG/KGNDS1.2 DIBROMOETHANEUG/KGNDS1.2 DIBROMOETHANEUG/KGNDS1.3 DICHLOROERDENEUG/KGNDS1.4 -DICHLORO-2-BUTENEUG/KGNDS1.3 DICHLOROBENZENEUG/KGNDS1.4 -DICHLOROBENZENEUG/KGNDS1.3 DICHLOROBENZENEUG/KGNDS1.4 -DICHLOROBENZENEUG/KGNDS1.3 DICHLOROBENZENEUG/KGNDS1.4 -DICHLOROBENZENEUG/KGNDS1.3 DICHLOROPROPANEUG/KGNDS1.4 -DICHLOROBENZENEUG/KGNDS1.3 DICHLOROPROPANEUG/KGNDS1.4 -DICHLOROPROPANEUG/KGNDS1.3 DICHLOROPROPANEUG/KGNDS1.4 -DICHLOROPROPANE <td>ROMORORM</td> <td></td> <td></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ROMORORM                     |        |          |                   |
| DROMOME INAMEDG/KGNDSCARBON DISULFIDEUG/KGNDSCARBON TETRACHLORIDEUG/KGNDSCARBON TETRACHLORIDEUG/KGNDSCHLOROPEREUG/KGNDSCHLOROPERAUG/KGNDSCHLOROPERAUG/KGNDSCHLOROPETHANEUG/KGNDSCHLOROPORMUG/KGNDS2-CHLOROPTOLUENEUG/KGNDS2-CHLOROTOLUENEUG/KGNDS2-CHLOROPTHANEUG/KGNDS1, 2 DICHLOROPTHYLENEUG/KGNDS1, 2 DIBROMOETHANEUG/KGNDS1, 2 DIBROMOETHANEUG/KGNDS1, 4 - DICHLOROPANEUG/KGNDS1, 4 - DICHLOROBENZENEUG/KGNDS1, 4 - DICHLOROBENZENEUG/KGNDS1, 1 - DICHLOROBENZENEUG/KGNDS1, 1 - DICHLOROBENZENEUG/KGNDS1, 2 - DICHLOROBENZENEUG/KGNDS1, 1 - DICHLOROBENZENEUG/KGNDS1, 2 - DICHLOROPANEUG/KGNDS1, 2 - DICHLOROPANEUG/KGNDS1, 2 - DICHLOROPANEUG/KGNDS1, 1 - DICHLOROPANEUG/KGNDS1, 2 - DICHLOROPANEUG/KGNDS1, 2 - DICHLOROPANEUG/KGNDS1, 1 - DICHLOROPAPANEUG/KGNDS<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DROMOMETUANE                 |        |          | 5<br>F            |
| 2 - BOTANORE06/KGND5CARBON DISULFIDEUG/KGND5CHLOROPRENEUG/KGND5CHLOROBENZENEUG/KGND5CHLOROFTHANEUG/KGND5CHLOROFTHANEUG/KGND5CHLOROTOLUENEUG/KGND52 - CHLOROTOLUENEUG/KGND5CHLOROTOLUENEUG/KGND51, 2 DICHLOROETHANEUG/KGND51, 2 DICHLOROETHANEUG/KGND51, 2 DICHLOROETHANEUG/KGND51, 2 DIBROMOMETHANEUG/KGND51, 4 - DICHLOROETHANEUG/KGND51, 4 - DICHLOROETHANEUG/KGND51, 4 - DICHLOROENZENEUG/KGND51, 3 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 1 DICHLOROPROPANEUG/KG <td></td> <td></td> <td></td> <td>5</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |        |          | 5                 |
| CHARDAN DISULFIDE UG/KG ND 5<br>CARBON TETRACHLORIDE UG/KG ND 5<br>CHARDAN TETRACHLORIDE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROFORM UG/KG ND 5<br>CHLOROFORM UG/KG ND 5<br>CHLOROFOLUENE UG/KG ND 5<br>2-CHLOROTOLUENE UG/KG ND 5<br>4-CHLOROTOLUENE UG/KG ND 5<br>CHLOROTOLUENE UG/KG ND 5<br>1,2 DICHLOROETHANE UG/KG ND 5<br>1,2 DIBROMOMETHANE UG/KG ND 5<br>1,4 DICHLOROETHANE UG/KG ND 5<br>1,4 DICHLOROENZENE UG/KG ND 5<br>1,2 DICHLOROPENAENE UG/KG ND 5<br>1,2 DICHLOROPENAENE UG/KG ND 5<br>1,1 DICHLOROENZENE UG/KG ND 5<br>1,2 DICHLOROPENENE UG/KG ND 5<br>1,2 DICHLOROPENENE UG/KG ND 5<br>1,2 DICHLOROPENENE UG/KG ND 5<br>1,2 DICHLOROPROPANE UG/KG ND 5<br>1,2 DICHLOROPROPANE UG/KG ND 5<br>1,2 DICHLOROPROPANE UG/KG ND 5<br>1,2 DICHLOROPROPANE UG/KG ND 5<br>0 S<br>0 S<br>0 S<br>0 S<br>0 S<br>0 S<br>0 S<br>0 S<br>0 S<br>0 S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |        |          | 5                 |
| CARBON TETRACHLORIDE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROBENZENE UG/KG ND 5<br>CHLOROFORM UG/KG ND 5<br>CHLOROFORM UG/KG ND 5<br>CHLOROTOLUENE UG/KG ND 5<br>4 - CHLOROTOLUENE UG/KG ND 5<br>1,2 DICHLOROETHYLENE UG/KG ND 5<br>1,2 DIBROMOETHANE UG/KG ND 5<br>1,2 DIBROMOETHANE UG/KG ND 5<br>1,2 DIBROMOETHANE UG/KG ND 5<br>1,4 - DICHLOROPENENE UG/KG ND 5<br>1,4 - DICHLOROBENZENE UG/KG ND 5<br>1,2 - DICHLOROBENZENE UG/KG ND 5<br>1,2 - DICHLOROBENZENE UG/KG ND 5<br>1,4 - DICHLOROBENZENE UG/KG ND 5<br>1,2 - DICHLOROBENZENE UG/KG ND 5<br>1,3 - DICHLOROBENZENE UG/KG ND 5<br>1,1 - DICHLOROBENZENE UG/KG ND 5<br>1,2 - DICHLOROBENZENE UG/KG ND 5<br>1,2 - DICHLOROBENZENE UG/KG ND 5<br>1,3 - DICHLOROBENZENE UG/KG ND 5<br>1,1 - DICHLOROBENZENE UG/KG ND 5<br>1,2 - DICHLOROPROPANE UG/KG ND 5<br>1,1 - DICHLOROPROPANE UG/KG ND 5<br>1,2 - DICHLOROPROPANE UG/KG ND 5<br>1,3 DICHLOROPROPANE UG/KG ND 5<br>1,3 DICHLOROPROPANE UG/KG ND 5<br>1,3 DICHLOROPROPANE UG/KG ND 5<br>1,2 - DICHLOROPROPENE UG/KG ND 5<br>1,2 - DICHLOROPROPENE UG/KG ND 5<br>1,3 - DICHLOROPROPENE UG/KG ND 5<br>1,2 - DICHLOROPROPENE UG/KG ND 5<br>1,2 - DICHLOROPROPENE UG/KG ND 5<br>1,3 - DICHLOROPROPENE UG/KG ND 5<br>1,4 - METHACRYLATE UG/KG ND 5<br>METHACRYLONITRILE UG/KG ND 5<br>METHACRYLONITADIENE UG/KG ND 5<br>METHACRYLONITADIENE UG/KG ND 5                                                                                      | CHLODODDENE                  |        |          | 5                 |
| CHARDON IEIRACHLORIDE UG/KG ND 5<br>CHLOROETHANE UG/KG ND 5<br>CHLOROETHANE UG/KG ND 5<br>CHLOROMETHANE UG/KG ND 5<br>2-CHLOROTOLUENE UG/KG ND 5<br>4-CHLOROTOLUENE UG/KG ND 5<br>CIS 1, 2 DICHLOROETHYLENE UG/KG ND 5<br>CHLORODIBROMOMETHANE UG/KG ND 5<br>1, 2 DIBROMOETHANE UG/KG ND 5<br>1, 2 DIBROMOETHANE UG/KG ND 5<br>1, 4 DICHLOROPROPANE UG/KG ND 5<br>1, 4 - DICHLOROBENZENE UG/KG ND 5<br>1, 2 - DICHLOROETHANE UG/KG ND 5<br>1, 2 - DICHLOROBENZENE UG/KG ND 5<br>1, 2 - DICHLOROBENZENE UG/KG ND 5<br>1, 2 - DICHLOROPENE UG/KG ND 5<br>1, 2 - DICHLOROPENE UG/KG ND 5<br>1, 2 - DICHLOROPENE UG/KG ND 5<br>1, 3 - DICHLOROPENE UG/KG ND 5<br>1, 1 - DICHLOROPENE UG/KG ND 5<br>1, 1 - DICHLOROPENE UG/KG ND 5<br>1, 2 - DICHLOROPENE UG/KG ND 5<br>1, 1 - DICHLOROPENE UG/KG ND 5<br>1, 2 - DICHLOROPENE UG/KG ND 5<br>1, 1 - DICHLOROPENE UG/KG ND 5<br>1, 1 - DICHLOROPENE UG/KG ND 5<br>1, 1 - DICHLOROPENE UG/KG ND 5<br>1, 2 - DICHLOROPENE UG/KG ND 5<br>1, 1 - DICHLOROPENE UG/KG ND 5<br>1 - HEXACHLOROBENZENE UG/KG ND 5<br>1 - HEXACHLOROBENZENE UG/KG ND 5<br>1 - HEXACHLOROBENZENE UG/KG ND 5<br>2 - HEXANONE UG/KG ND 5<br>1 - HEXACHLOROPENE UG/KG ND 5<br>1 - HEXACHLOROPENE                   |                              |        |          | 5                 |
| CHLOROBENZENEUG/KGND5CHLOROPORMUG/KGND5CHLOROPORMUG/KGND5CHLOROPORMUG/KGND5CHLOROTOLUENEUG/KGND54 -CHLOROTOLUENEUG/KGND5CHORODIBROMOMETHANEUG/KGND51, 2 DICHLOROETHANEUG/KGND51, 2 DICHLOROETHANEUG/KGND51, 2 DIBROMO-3 - CHLOROPROPANEUG/KGND51, 4 - DICHLOROENZENEUG/KGND51, 4 - DICHLOROENZENEUG/KGND51, 3 - DICHLOROENZENEUG/KGND51, 3 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 3 - DICHLOROPROPANEUG/KGND51, 1 - DICHLOROPROPANEUG/KGND51, 1 - DICHLOROPROPANEUG/KGND51, 1 DICHLOROPROPANEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |        |          | 5                 |
| CHLOROE HANEUG/KGND5CHLOROFORMUG/KGND52-CHLOROTOLUENEUG/KGND54-CHLOROTOLUENEUG/KGND5CIS 1, 2 DICHLOROETHYLENEUG/KGND5CHLOROTOLUENEUG/KGND5CHLOROTOLUENEUG/KGND51, 2 DICHLOROETHYLENEUG/KGND51, 2 -DIRROMOETHANEUG/KGND51, 4 -DICHLOROE - BUTENEUG/KGND51, 4 -DICHLOROENZENEUG/KGND51, 4 -DICHLOROBENZENEUG/KGND51, 4 -DICHLOROBENZENEUG/KGND51, 3 - DICHLOROBENZENEUG/KGND51, 1 -DICHLOROETHANEUG/KGND51, 1 -DICHLOROETHANEUG/KGND51, 1 -DICHLOROETHANEUG/KGND51, 2 -DICHLOROPROPANEUG/KGND51, 3 -DICHLOROPROPANEUG/KGND51, 3 -DICHLOROPROPANEUG/KGND51, 2 -DICHLOROPROPANEUG/KGND51, 3 -DICHLOROPROPENEUG/KGND51, 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CHLOROBENZENE                |        |          | 5                 |
| CHLOROFURMUG/KGND5CHLOROTOLUENEUG/KGND52-CHLOROTOLUENEUG/KGND54-CHLOROTOLUENEUG/KGND51,2 DICHLOROETHYLENEUG/KGND5CHLORODIBROMOMETHANEUG/KGND51,2 DIBROMO-3-CHLOROPROPANEUG/KGND51,4-DICHLORO-2-BUTENEUG/KGND51,4-DICHLOROBENZENEUG/KGND51,4-DICHLOROBENZENEUG/KGND51,2-DICHLOROBENZENEUG/KGND51,2-DICHLOROBENZENEUG/KGND51,2-DICHLOROBENZENEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CHLOROETHANE                 |        |          | 5 .               |
| CHLOROMETHANEUG/KGND52-CHLOROTOLUENEUG/KGND54-CHLOROTOLUENEUG/KGND5CIS 1, 2 DICHLOROETHYLENEUG/KGND51, 2 DIBROMOETHANEUG/KGND51, 2 DIBROMOETHANEUG/KGND51, 4 -DICHLORO-2 - BUTENEUG/KGND51, 4 -DICHLOROENZENEUG/KGND51, 4 -DICHLOROBENZENEUG/KGND51, 4 -DICHLOROBENZENEUG/KGND51, 2 -DICHLOROBENZENEUG/KGND51, 2 -DICHLOROBENZENEUG/KGND51, 2 -DICHLOROBENZENEUG/KGND51, 1 -DICHLOROETHANEUG/KGND51, 2 -DICHLOROETHANEUG/KGND51, 1 -DICHLOROETHANEUG/KGND51, 2 -DICHLOROETHANEUG/KGND51, 3 -DICHLOROPROPANEUG/KGND51, 3 -DICHLOROPROPANEUG/KGND51, 3 -DICHLOROPROPANEUG/KGND51, 2 -DICHLOROPROPANEUG/KGND51, 2 -DICHLOROPROPANEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND52 -HEXANONEUG/KGND54 -METHYL -2 -PENTANONEUG/KGND5<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CHLOROFORM                   | UG/KG  |          | 5                 |
| 2 - CHLOROTOLUBDENEUG/KGNDS4 - CHLOROTOLUENEUG/KGNDSCIS 1, 2 DICHLOROETHYLENEUG/KGNDS1, 2 DIBROMOMETHANEUG/KGNDS1, 2 DIBROMO-3 - CHLOROPROPANEUG/KGNDS1, 4 - DICHLORO-2 - BUTENEUG/KGNDS1, 4 - DICHLOROBENZENEUG/KGNDS1, 4 - DICHLOROBENZENEUG/KGNDS1, 3 - DICHLOROBENZENEUG/KGNDS1, 1 - DICHLOROBENZENEUG/KGNDS1, 1 - DICHLOROBENZENEUG/KGNDS1, 1 - DICHLOROETHANEUG/KGNDS1, 1 - DICHLOROETHANEUG/KGNDS1, 2 - DICHLOROETHANEUG/KGNDS1, 3 - DICHLOROPROPANEUG/KGNDS1, 2 - DICHLOROPROPENEUG/KGNDS1, 1 DICHLOROPROPENEUG/KGNDS1, 1 DICHLOROPROPENEUG/KGNDS1, 1 DICHLOROPROPENEUG/KGNDSMETHACRYLONITRILEUG/KGNDSMETHACRYLONITRILEUG/KGNDSMETHACRYLONITRILEUG/KGNDS4 - METHYL -2 - PENTANONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              | UG/KG  | ND       | 5                 |
| 4-CHLOROTOLUDENEUG/KGND5CIS 1, 2 DICHLOROETHYLENEUG/KGND51, 2 DIBROMOETHANEUG/KGND51, 2 DIBROMO-3 - CHLOROPROPANEUG/KGND51, 4 - DICHLORO-2 - BUTENEUG/KGND5DIBROMOMETHANEUG/KGND51, 4 - DICHLOROBENZENEUG/KGND51, 3 - DICHLOROBENZENEUG/KGND51, 4 - DICHLOROBENZENEUG/KGND51, 2 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROBENZENEUG/KGND51, 2 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROBENZENEUG/KGND51, 2 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROBENZENEUG/KGND51, 2 - DICHLOROPETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND52, 2 - DICHLOROPROPANEUG/KGND5CIS - 1, 3 - DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL METHACRYLATEUG/KGND5METHACRYLONITRILE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              | UG/KG  |          | 5                 |
| C1S 1, 2 DICHLOROETHALENEUG/KGND5CHLORODIBROMOMETHANEUG/KGND51, 2 DIBROMOETHANEUG/KGND51, 2 - DIBROMOETHANEUG/KGND51, 4 - DICHLOROP.2 - BUTENEUG/KGND51, 4 - DICHLOROBENZENEUG/KGND51, 4 - DICHLOROBENZENEUG/KGND51, 3 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROETHANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 3 - DICHLOROPROPANEUG/KGND51, 1 DICHLOROPROPANEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL METHACRYLATEUG/KGND5METHACRYLONITRILEUG/KGND54 - METHYL-2 - PENTANONEUG/KGND52 - HEXANONEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4 - CHLOROTOLUENE            | UG/KG  |          | 5                 |
| CHLORODIBROMOMETHANEUG/KGND51,2 DIBROMOC 3 - CHLOROPROPANEUG/KGND51,4 - DICHLORO - 2 - BUTENEUG/KGND5DIBROMOMETHANEUG/KGND51,4 - DICHLOROBENZENEUG/KGND51,3 - DICHLOROBENZENEUG/KGND51,2 - DICHLOROBENZENEUG/KGND51,2 - DICHLOROBENZENEUG/KGND51,2 - DICHLOROBENZENEUG/KGND51,2 - DICHLOROBENZENEUG/KGND51,1 - DICHLOROBENZENEUG/KGND51,1 - DICHLOROBETHANEUG/KGND51,1 - DICHLOROETHANEUG/KGND51,2 - DICHLOROETHANEUG/KGND51,3 - DICHLOROETHANEUG/KGND51,2 - DICHLOROPENENEUG/KGND51,3 - DICHLOROPROPANEUG/KGND51,2 - DICHLOROPROPANEUG/KGND51,2 - DICHLOROPROPANEUG/KGND51,3 - DICHLOROPROPENEUG/KGND5CIS - 1,3 - DICHLOROPROPENEUG/KGND5TRANS - 1,3 - DICHLOROPROPENEUG/KGND5METHYL BENZENEUG/KGND5METHYL BENZENEUG/KGND5METHACRYLONITRILEUG/KGND5METHACRYLONITRILEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND </td <td>CIS 1, 2 DICHLOROETHYLENE</td> <td>UG/KG</td> <td></td> <td>5</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CIS 1, 2 DICHLOROETHYLENE    | UG/KG  |          | 5                 |
| 1,2DIBROMOE I HANEUG/KGND51,2-DIBROMO-3-CHLOROPROPANEUG/KGND51,4-DICHLORO-2-BUTENEUG/KGND5DIBROMOMETHANEUG/KGND51,4-DICHLOROBENZENEUG/KGND51,3-DICHLOROBENZENEUG/KGND5DICHLORODIFLUOROMETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,3-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPANEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND51,1-DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHACRYLONITRILEUG/KGND5METHACRYLONITRILEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CHLORODIBROMOMETHANE         | UG/KG  |          | 5                 |
| 1, 2 - DIBROMO-3 - CHLOROPROPANEUG/KGND51, 4 - DICHLORO-2 - BUTENEUG/KGND5DIBROMOMETHANEUG/KGND51, 4 - DICHLOROBENZENEUG/KGND51, 3 - DICHLOROBENZENEUG/KGND51, 2 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROBENZENEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROETHANEUG/KGND51, 3 DICHLOROPENANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 3 - DICHLOROPROPENEUG/KGND51, 1 - DICHLOROPROPENEUG/KGND51, 1 - DICHLOROPROPENEUG/KGND51, 1 - DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHACRYLATEUG/KGND5METHACRYLONITRILEUG/KGND5METHACRYLONITRILEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1,2 DIBROMOETHANE            | UG/KG  |          | 5                 |
| 1,4-DICHLORO-2-BUTENEUG/KGND5DIBROMOMETHANEUG/KGND51,4-DICHLOROBENZENEUG/KGND51,3-DICHLOROBENZENEUG/KGND51,2-DICHLOROBENZENEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,3 DICHLOROETHENEUG/KGND51,3 DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPANEUG/KGND51,1 DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL ACHYLATELUG/KGND5METHACRYLONITRILEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1, 2-DIBROMO-3-CHLOROPROPANE | UG/KG  |          | 5                 |
| DIBROMOMETHANEUG/KGND51, 4 - DICHLOROBENZENEUG/KGND51, 3 - DICHLOROBENZENEUG/KGND51, 2 - DICHLOROBENZENEUG/KGND5DICHLORODIFLUOROMETHANEUG/KGND51, 1 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROETHANEUG/KGND51, 2 - DICHLOROETHANEUG/KGND51, 3 DICHLOROETHANEUG/KGND51, 4 - DICHLOROETHANEUG/KGND51, 5 DICHLOROETHANEUG/KGND51, 7 - DICHLOROPROPANEUG/KGND51, 3 DICHLOROPROPANEUG/KGND51, 2 - DICHLOROPROPANEUG/KGND51, 3 - DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHACRYLATEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL METHACRYLATEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1,4-DICHLORO-Z-BUTENE        | UG/KG  |          | 5                 |
| 1,4-DICHLOROBENZENEUG/KGND51,3-DICHLOROBENZENEUG/KGND51,2-DICHLOROBENZENEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHENEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3 DICHLOROPROPANEUG/KGND52,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPANEUG/KGND5CIS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL ONITRILEUG/KGND54-METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DIBROMOMETHANE               | UG/KG  |          | 5                 |
| 1,3-DICHLOROBENZENEUG/KGND51,2-DICHLOROBENZENEUG/KGND5DICHLORODIFLUOROMETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,3 DICHLOROPROPANEUG/KGND52,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5METHYL BENZENEUG/KGND5METHACRYLONITRILEUG/KGND54-METHYL-2-PENTANONEUG/KGND54-METHYL-2-PENTANONEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1,4-DICHLOROBENZENE          | UG/KG  |          | 5                 |
| 1,2-DICHLOROBENZENEUG/KGND5DICHLORODIFLUOROMETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHENEUG/KGND51,3 DICHLOROPROPANEUG/KGND52,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND51,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHACRYLATEUG/KGND5METHACRYLONITRILEUG/KGND54-METHYL-2-PENTANONEUG/KGND54-MEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1, 3-DICHLOROBENZENE         | UG/KG  |          | 5                 |
| DICHLORODIFILOROMETHANEUG/KGND51, 1-DICHLOROETHANEUG/KGND51, 2-DICHLOROETHANEUG/KGND51, 1 DICHLOROETHENEUG/KGND51, 3 DICHLOROPROPANEUG/KGND52, 2-DICHLOROPROPANEUG/KGND51, 2-DICHLOROPROPANEUG/KGND51, 3-DICHLOROPROPENEUG/KGND5TRANS-1, 3-DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND5ETHYLBENZENEUG/KGND5METHACRYLATEUG/KGND54-METHYL-2-PENTANONEUG/KGND54-METHYL-2-PENTANONEUG/KGND54-HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | I, Z-DICHLOROBENZENE         | UG/KG  |          | 5                 |
| 1,1-DICHLOROETHANEUG/KGND51,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHANEUG/KGND51,3 DICHLOROPROPANEUG/KGND52,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND5CIS-1,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHACRYLATEUG/KGND54-METHYL-2-PENTANONEUG/KGND54-MEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DICHLORODIFLUOROMETHANE      | UG/KG  |          | 5                 |
| 1,2-DICHLOROETHANEUG/KGND51,1-DICHLOROETHENEUG/KGND51,3 DICHLOROPROPANEUG/KGND52,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND5CIS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND54-METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | I, I-DICHLOROETHANE          | UG/KG  |          | 5                 |
| 1,1-DICHLOROETHENEUG/KGND51,3 DICHLOROPROPANEUG/KGND52,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND5CIS-1,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1, 2-DICHLOROETHANE          | UG/KG  |          | 5                 |
| 1,3DICHLOROPROPANEUG/KGND52,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND5CIS-1,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1DICHLOROPROPENEUG/KGND5ETHYLBENZENEUG/KGND5METHYLMETHACRYLATEUG/KGND54-METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | I, I-DICHLOROETHENE          | UG/KG  |          | 5                 |
| 2,2-DICHLOROPROPANEUG/KGND51,2-DICHLOROPROPANEUG/KGND5CIS-1,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND54-METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1,3 DICHLOROPROPANE          | UG/KG  |          | 5                 |
| 1,2-DICHLOROPROPANEUG/KGND5CIS-1,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2,2-DICHLOROPROPANE          | UG/KG  |          | 5                 |
| C1S-1,3-DICHLOROPROPENEUG/KGND5TRANS-1,3-DICHLOROPROPENEUG/KGND51,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1,2-DICHLOROPROPANE          | UG/KG  |          | 5                 |
| TRANS - 1, 3 - DICHLOROPROPENEUG/KGND51, 1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHACRYLONITRILEUG/KGND54 - METHYL - 2 - PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CIS-1, 3-DICHLOROPROPENE     | UG/KG  |          | 5                 |
| 1,1 DICHLOROPROPENEUG/KGND5ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHACRYLONITRILEUG/KGND54 - METHYL - 2 - PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | TRANS-1, 3-DICHLOROPROPENE   | UG/KG  |          | 5                 |
| ETHYL BENZENEUG/KGND5METHYL METHACRYLATEUG/KGND5METHACRYLONITRILEUG/KGND54 - METHYL - 2 - PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1,1 DICHLOROPROPENE          | UG/KG  |          | 5                 |
| METHYL METHACRYLATEUG/KGND5METHACRYLONITRILEUG/KGND54 - METHYL - 2 - PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ETHYL BENZENE                | UG/KG  |          | 5                 |
| METHACRYLONTTRILEUG/KGND54 -METHYL - 2 - PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | METHYL METHACRYLATE          | UG/KG  | -        | 5                 |
| 4 -METHYL-2-PENTANONEUG/KGND5HEXACHLOROBUTADIENEUG/KGND52 - HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | METHACRYLONITRILE            | UG/KG  |          | 5                 |
| HEXACHLOROBUTADIENEUG/KGND52-HEXANONEUG/KGND5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4-METHYL-Z-PENTANONE         | UG/KG  |          | 5                 |
| Z-HEXANONE UG/KG ND 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEXACHLOROBUTADIENE          | UG/KG  |          | 5                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Z-HEXANONE                   | UG/KG  | ND       | 5                 |

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[0) Page 2 Date 12-Apr-96

| Title:<br>Batch:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Low Soil Blank<br>MAS038                                                          |                                                                                                                                                                                                                                                                                                                                  |                                                                                 |                                                                          | Date 12-Apr-96   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------|
| Analysis Method:<br>Extraction Method:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8260 / SW-846,<br>N/A                                                             | 3rd Edition,                                                                                                                                                                                                                                                                                                                     | September                                                                       | 1986 and Rev                                                             | 7. 1, July 1992. |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                   | Units:                                                                                                                                                                                                                                                                                                                           | Results:                                                                        | Reporting                                                                | g Limits:        |
| ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>STYRENE<br>TERT-BUTYL BENZENE<br>1,1,2,2-TETRACHLOR<br>1,1,2,2-TETRACHLOR<br>TOLUENE DIISOCYANA<br>TOLUENE DIISOCYANA<br>TOLUENE DIISOCYANA<br>TOLUENE DIISOCYANA<br>TOLUENE DIAMINE<br>TRANS 1,2 DICHLOR<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,4 TRICHLOROETH<br>1,2,3 TRICHLOROBEN<br>TRICHLOROFLUOROMET<br>1,2,4-TRIMETHYLBEN<br>1,3,5-TRIMETHYLBEN<br>VINYL ACETATE<br>VINYL CHLORIDE<br>M, P-XYLENE<br>DIBROMOFLUOROMETHA<br>TOLUENE D8<br>BROMOFLUOROBENZENE | DETHANE<br>TE<br>DETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>10<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |                  |
| ANALYST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   | INITIALS                                                                                                                                                                                                                                                                                                                         | LL                                                                              |                                                                          |                  |

Comments:



"QC Report"

[0) Page 3 Date 12-Apr-96

Low Soil Reagent Title: Batch: MAS038 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

RS Date Analyzed: 08-APR-96 RSD Date Analyzed: 08-APR-96

RS Date Extracted: N/A RSD Date Extracted: N/A

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| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>56<br>50<br>56<br>50<br>51 | RS<br>%Rec<br>112<br>100<br>112<br>100<br>102 | RSD<br>Conc<br>59<br>49<br>56<br>48<br>48 | RSD<br>%Rec<br>118<br>98<br>112<br>96<br>96 | RPD<br>5<br>2<br>0<br>4<br>6 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------|---------------------------------------------|------------------------------|-------------------------------------------------|--------------------------------------------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                              |                                          | 103<br>104<br>103                             |                                           | 115<br>103<br>107                           |                              |                                                 | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.



[0) Page 4 Date 12-Apr-96

### "QC Report"

Low Soil Matrix MAS038 Title: Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

| Dry Weight %: 85<br>Sample Spiked: 603602-5                                                 | MS Date<br>MSD Date                                | Analyzed:<br>Analyzed                                          | 08-APR-<br>1: 08-APR-                    |                                           | MS Date<br>MSD Dat                        |                                             |                              |                                           | /A<br>/A                                                     |
|---------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------|------------------------------|-------------------------------------------|--------------------------------------------------------------|
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>59<br>59<br>59<br>59<br>59<br>59 | Sample<br>Conc<br><5.9<br><5.9<br><5.9<br><5.9<br><5.9<br><5.9 | MS<br>Conc<br>52<br>58<br>55<br>52<br>59 | MS<br>%Rec<br>88<br>98<br>93<br>88<br>100 | MSD<br>Conc<br>54<br>59<br>51<br>52<br>59 | MSD<br>%Rec<br>92<br>100<br>86<br>88<br>100 | RPD<br>4<br>2<br>8<br>0<br>0 | RPD<br>Lmts<br>42<br>20<br>20<br>44<br>20 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                                    |                                                                |                                          | 101<br>88<br>109                          |                                           | 98<br>87<br>111                             |                              |                                           | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 5 Date 12-Apr-96

#### Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLED = DILUTED OUTUG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS
J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT
GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE

ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.

PROGRAM AND REFERENCED METHOD.

DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLM01.8, AUGUST 1991.

| LP = LEVERNE PETERSON   | RW = RITA WINGO      |
|-------------------------|----------------------|
| DWB = DAVID BOWERS      | LD = LARRY DILMORE   |
| DB = DENNIS BESON       | DC = DAVID CELESTIAL |
| LL = LANCE LARSON       | RB = RAFAEL BARRAZA  |
| JA = JENNIFER ALEXANDER | PL = PAUL LESCHENSKY |

Quality Control Report

Analysis: BN EXTRACTABLES (8270)

603602 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: CSXT-GREENVILLE Project Location: GREENVILLE, SC Department: ORGANIC/MS

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(0) Page 1 Date 24-Apr-96

|                                                                                                                                               |                |             |             | Date 24-Apr-96   |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|-------------|------------------|
|                                                                                                                                               | "QC Report"    |             |             |                  |
| Title: Soil Blank                                                                                                                             |                |             |             |                  |
| Batch: ALS023                                                                                                                                 |                |             |             |                  |
| Analysis Method: 8270 / SW-846.                                                                                                               | 3rd Edition,   | September   | 1986 and Re | v. 1, July 1992. |
| Extraction Method: 3550 / SW-846,                                                                                                             | 3rd Edition,   | September   | 1986 and Re | v. 1, July 1992. |
| Exclude of Meenod. 5550 / BH 010,                                                                                                             |                |             |             |                  |
|                                                                                                                                               |                |             |             |                  |
| Blank Id: A Date Analyzed: 04-                                                                                                                | APR-96 Dat     | e Extracted | 01-APR-96   |                  |
| Blank IU: A Date Analyzed. Of                                                                                                                 |                |             |             |                  |
| Demonsterre                                                                                                                                   | Units:         | Results:    | Reportin    | g Limits:        |
| Parameters:                                                                                                                                   | onres.         | Rebuieb.    | Reportan    | 5 21             |
| D GULODO M GDDGOI                                                                                                                             | UG/KG          | ND          | 10          |                  |
| P-CHLORO-M-CRESOL                                                                                                                             | UG/KG          | ND          | 10          |                  |
| 2-CHLOROPHENOL                                                                                                                                | UG/KG          | ND          | 10          |                  |
| O-CRESOL                                                                                                                                      | UG/KG<br>UG/KG | ND          | 10          |                  |
| M, P CRESOL                                                                                                                                   |                | ND          | 10          |                  |
| 2,4-DICHLOROPHENOL                                                                                                                            | UG/KG          |             | 10          |                  |
| 2,6-DICHLOROPHENOL                                                                                                                            | UG/KG          | ND          | 10          |                  |
| 2,4-DIMETHYLPHENOL                                                                                                                            | UG/KG          | ND          |             |                  |
| 4,6-DINITRO-O-CRESOL                                                                                                                          | UG/KG          | ND          | 50          |                  |
| 2,4-DICHLOROPHENOL<br>2,6-DICHLOROPHENOL<br>2,4-DIMETHYLPHENOL<br>4,6-DINITRO-O-CRESOL<br>2,4-DINITROPHENOL<br>2-NITROPHENOL<br>4-NITROPHENOL | UG/KG          | ND          | 10          |                  |
| 2-NITROPHENOL                                                                                                                                 | UG/KG          | ND          | 10          |                  |
| 4-NITROPHENOL                                                                                                                                 | UG/KG          | ND          | 50          |                  |
| PENTACHLOROPHENOL                                                                                                                             | UG/KG          | ND          | 50          |                  |
| PHENOL                                                                                                                                        | UG/KG          | ND          | 10          |                  |
| 2,3,4,6-TETRACHLOROPHENOL<br>2,4,5-TRICHLOROPHENOL                                                                                            | UG/KG          | ND          | 10          |                  |
| 2,4,5-TRICHLOROPHENOL                                                                                                                         | UG/KG          | ND          | 50          |                  |
| 2,4,6-TRICHLOROPHENOL                                                                                                                         | UG/KG          | ND          | 10          |                  |
| ACENAPHTHENE                                                                                                                                  | UG/KG          | ND          | 10          |                  |
| ACENAPHTHYLENE                                                                                                                                | UG/KG          | ND          | 10          |                  |
| ACETOPHENONE                                                                                                                                  | UG/KG          | ND          | 10          |                  |
| 2-ACETYLAMINOFLUORENE                                                                                                                         | UG/KG          | ND          | 10          |                  |
| 4 - AMINOBIPHENYL                                                                                                                             | UG/KG          | ND          | 10          |                  |
| ANILINE                                                                                                                                       | UG/KG          | ND          | 10          |                  |
| ANTHRACENE                                                                                                                                    | UG/KG          | ND          | 10          |                  |
| ARAMITE                                                                                                                                       | UG/KG          | ND          | 10          |                  |
| BENZO (A) ANTHRACENE                                                                                                                          | UG/KG          | ND          | 10          |                  |
| BENZO (A) PYRENE                                                                                                                              | UG/KG          | ND          | 10          |                  |
| BENZO (B) FLUORANTHENE                                                                                                                        | UG/KG          | ND          | 10          |                  |
| BENZO (G, H, I) PERYLENE                                                                                                                      | UG/KG          | ND          | 10          |                  |
| BENZO (K) FLUORANTHENE                                                                                                                        | UG/KG          | ND          | 10          |                  |
| BENZYL ALCOHOL                                                                                                                                | UG/KG          | ND          | 10          |                  |
| BIS (2 - CHLORO - 1 - METHYLETHYL) ETHER                                                                                                      | UG/KG          | ND          | 10          |                  |
| BIS (2-CHLOROETHOXY) METHANE                                                                                                                  | UG/KG          | ND          | 10          |                  |
| BIS (2 - CHLOROETHYL) ETHER                                                                                                                   | UG/KG          | ND          | 10          |                  |
| BIS (2 - ETHYLHEXYL) PHTHALATE                                                                                                                | ŬG/KG          | ND          | 10          |                  |
| 4-BROMOPHENYL PHENYL ETHER                                                                                                                    | UG/KG          | ND          | 10          |                  |
| BUTYLBENZYL PHTHALATE                                                                                                                         | UG/KG          | ND          | 10          |                  |
|                                                                                                                                               | UG/KG          | ND          | ĩõ          |                  |
| P-CHLOROANILINE                                                                                                                               | UG/KG          | ND          | 10          |                  |
| CHLOROBENZILATE<br>2-CHLORONAPHTHALENE                                                                                                        | UG/KG          | ND          | 10          |                  |
| 4-CHLOROPHENYL PHENYL ETHER                                                                                                                   | UG/KG          | ND          | 10          |                  |
|                                                                                                                                               | UG/KG          | ND          | 10          |                  |
| CHRYSENE                                                                                                                                      | UG/KG          | ND          | 10          |                  |
| DIALLATE                                                                                                                                      |                | ND          | 10          |                  |
| DIBENZO (A, H) ANTHRACENE                                                                                                                     | UG/KG          | ND<br>ND    | 10          |                  |
| DIBENZOFURAN                                                                                                                                  | UG/KG<br>UG/KG | ND          | 10          |                  |
| 1, 2-DICHLOROBENZENE                                                                                                                          |                | ND          | 10          |                  |
| 1,3-DICHLOROBENZENE                                                                                                                           | UG/KG          | ND          | 10          |                  |
|                                                                                                                                               |                |             |             |                  |

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[0) Page 2 Date 24-Apr-96

|                                        | "QC Report"                                                                                   | Date 24-Apr-96                               |
|----------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------|
| Title:<br>Batch:                       | Soil Blank<br>ALS023                                                                          |                                              |
| Analysis Method:<br>Extraction Method: | 8270 / SW-846, 3rd Edition, September 1986 and 3550 / SW-846, 3rd Edition, September 1986 and | l Rev. 1, July 1992.<br>l Rev. 1, July 1992. |

| Parameters:<br>1,4-DICHLOROBENZENE<br>3,3'-DICHLOROBENZIDINE<br>DIETHYLPHTHALATE<br>DIMETHOATE<br>P.DIMETHYLAMINOAZOBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Units: | Results: | Reporting Limits: |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|-------------------|
| <pre>1, 4 - DICHLOROBENZENE 3, 3' - DICHLOROBENZIDINE DIETHYLPHTHALATE DIMETHYLATE DIMETHYLATE DIMETHYLATE DIMETHYLBENZ(A) ANTHRACENE 3, 3' - DIMETHYLBENZIDINE A, A - DIMETHYLPHENETHYLAMINE DIMETHYLPHTHALATE DI-N-BUTYLPHTHALATE DI-N-BUTYLPHTHALATE M-DINITROBENZENE 2, 6 - DINITROTOLUENE 2, 6 - DINITROTOLUENE DI - N - OCTYLPHTHALATE DIPHENYLAMINE ETHYL METHANESULFONATE FAMPHUR FLUORANTHENE FLUORENE HEXACHLOROBENZENE HEXACHLOROBENZENE HEXACHLOROBENZENE HEXACHLOROBENZENE HEXACHLOROPHENE ISODRIN ISOPHORONE ISOSAFROLE KEPONE METHAPYRILENE 3-METHYLCHOLANTHRENE METHYL METHANESULFONATE 1 - METHYLNAPHTHALENE NAPHTHALENE 1, 4 - NAPHTHQUINONE 1 - NAPHTHYLAMINE 2 - NITROANILINE 3 - NITROANILINE 3 - NITROANILINE 1 - NITROSODIETHYLAMINE N - NITROSODIETHYLAMINE N - NITROSODIMETHYLAMINE </pre> | UG/KG  | ND       | 10                |
| 3.3'-DICHLOROBENZIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UG/KG  | ND       | 50                |
| DIETHYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/KG  | ND       | 10                |
| DIMETHOATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/KG  | ND       | 10                |
| P-DIMETHYLAMINOAZOBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG  | ND       | 10                |
| 7.12-DIMETHYLBENZ (A) ANTHRACENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/KG  | ND       | 10                |
| 3.3'-DIMETHYLBENZIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ŬG/KG  | ND<br>ND | 10                |
| A.A-DIMETHYLPHENETHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/KG  | ND       | 10                |
| DIMETHYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UG/KG  | ND       | 10                |
| DI-N-BUTYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG  | ND       | 10                |
| M-DINITROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/KG  | ND       | 10                |
| 2.4-DINITROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UG/KG  | ND       | 10                |
| 2,6-DINITROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ŬG/KG  | ND       | 10                |
| DI-N-OCTYLPHTHALATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG  | ND       | 10                |
| DIPHENYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/KG  | NÐ<br>ND | 10                |
| ETHYL METHANESULFONATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UG/KG  | ND       | 10                |
| FAMPHUR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UG/KG  | ND       | 10                |
| FLUORANTHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/KG  | ND       | 10                |
| FLUORENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG  | ND       | 10                |
| HEXACHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UG/KG  | ND       | 10                |
| HEXACHLOROBUTADIENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ŬG/KG  | ND       | 10                |
| HEXACHLOROCYCLOPENTADIENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/KG  | ND       | 10                |
| HEXACHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/KG  | ND       | 10                |
| HEXACHLOROPHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UG/KG  | ND       | 10                |
| HEXACHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ŬĠ/KĠ  | ND       | 10                |
| INDENO (1,2,3-CD) PYRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG  | ND       | 10                |
| ISODRIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UG/KG  | ND<br>ND | 10                |
| ISOPHORONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/KG  | ND       | 10                |
| ISOSAFROLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/KG  | ND       | 10                |
| KEPONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UG/KG  | ND       | 10                |
| METHAPYRILENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/KG  | ND       | 10                |
| 3-METHYLCHOLANTHRENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | UG/KG  | ND       | 10                |
| METHYL METHANESULFONATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | UG/KG  | ND       | 10                |
| 1-METHYLNAPHTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG  | ND       | 10                |
| 2 -METHYLNAPHTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | UG/KG  | ND       | 10                |
| NAPHTHALENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UG/KG  | ND       | 10                |
| 1,4-NAPHTHOQUINONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UG/KG  | ND       | 10                |
| 1-NAPHTHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UG/KG  | ND       | 10                |
| 2-NAPHTHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UG/KG  | ND       | 10                |
| 2-NITROANILINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG  | ND       | 50                |
| 3-NITROANILINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG  | ND       | 50                |
| 4-NITROANILINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/KG  | ND       | 50                |
| NITROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/KG  | ND       | 10                |
| 5-NITRO-O-TOLUIDINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/KG  | ND       | 10                |
| 4-NITROQUINOLINE-1-OXIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/KG  | ND       | 10                |
| N-NITROSODIETHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UG/KG  | ND       | 10                |
| N-NITROSODIMETHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UG/KG  | ND       | 10                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |          |                   |

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(0) Page 3 Date 24-Apr-96

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|                                        |                | "QC Report"           |           |              | Date 24-Api-90  |
|----------------------------------------|----------------|-----------------------|-----------|--------------|-----------------|
| Title:                                 | Soil Blank     | ~ •                   |           |              |                 |
| Batch:                                 | ALS023         |                       |           |              |                 |
| Analysis Method:<br>Extraction Method: | 8270 / SW-846, | 3rd Edition,          | September | 1986 and Rev | . 1, July 1992. |
| Extraction Method:                     | 3550 / SW-846, | stu Eurcion,          | September |              | . I, JUIY 1992. |
|                                        |                |                       |           |              |                 |
| Parameters:                            |                | Units:                | Results:  | Reporting    | Limits:         |
| N-NITROSODI-N-BUTY                     | LAMINE         | UG/KG                 | ND        | 10           |                 |
| N-NITROSODIPHENYLA                     |                | UG/KG                 | ND        | 10           |                 |
| N-NITROSOMETHYLETH                     |                | UG / KG               | ND        | 10           |                 |
| N-NITROSOMORPHOLINI                    |                | UG / KG               | ND        | 10           |                 |
| N-NITROSOPIPERIDIN                     | E              | UG/KG                 | ND        | 10           |                 |
| N-NITROSOPYRROLIDI                     |                | UG/KG                 | ND        | 10           |                 |
| PARATHION                              |                | UG/KG                 | ND        | 10           |                 |
| PENTACHLOROBENZENE                     |                | UG/KG                 | ND        | 10           |                 |
| PENTACHLOROETHANE                      |                | UG/KG                 | NÐ        | 10           |                 |
| PENTACHLORONITROBE                     | NZENE          | UG/KG                 | ND        | 10           |                 |
| PHENACETIN                             |                | UG/KG                 | ND        | 10           |                 |
| PHENANTHRENE                           |                | UG/KG                 | ND        | 10           |                 |
| 2-PICOLINE                             |                | UG/KG                 | ND        | 10           |                 |
| P-PHENYLENEDIAMINE                     |                | UG/KG                 | ND        | 10           |                 |
| PRONAMIDE                              |                | UG/KG                 | ND        | 10           |                 |
| PYRENE                                 |                | UG/KG                 | ND        | 10           |                 |
| PYRIDINE                               |                | UG/KG                 | NÐ        | 10           |                 |
| SAFROLE                                |                | UG/KG                 | ND        | 10           |                 |
| SULFOTEPP                              |                | UG/KG                 | ND        | 10           |                 |
| 1,2,4,5-TETRACHLOR                     | OBENZENE       | UG/KG                 | ND        | 10           |                 |
| THIONAZIN                              |                | UG/KG                 | ND        | 10           |                 |
| O-TOLUIDINE                            |                | UG/KG                 | ND        | 10           |                 |
| 1,2,4 TRICHLOROBEN                     |                | UG/KG                 | ND        | 10           |                 |
| SYM-TRINITROBENZEN                     |                | UG/KG                 | ND        | 10           |                 |
| 0,0,0-TRIETHYL PHO                     | SPHOROTHIATE   | UG/KG                 | ND        | 10           |                 |
| BENZIDINE                              |                | UG/KG                 | ND        | 10           |                 |
| BIS (2-CHLOROISOPRO                    |                | UG/KG                 | ND        | 10           |                 |
| 2-(SEC BUTYL)4,6-D                     | INTTRO-        |                       | ND        | • •          |                 |
| PHENOL (DINOSEB)                       | 5117 33733T    | UG/KG                 | ND        | 10           |                 |
| N-NITROSO-DI-N-PRO                     | PYLAMINE       | UG/KG                 | ND        | 10           |                 |
| 2-FLUOROBIPHENYL                       |                | %REC/SURR             | 76        | 30-115       |                 |
| TERPHENYL-D14                          |                | %REC/SURR             | 86        | 18-137       |                 |
| NITROBENZENE-D5                        |                | %REC/SURR             | 72        | 23-120       |                 |
| 2-FLUOROPHENOL                         |                | %REC/SURR             | 79<br>73  | 25-121       |                 |
| PHENOL-D6                              | 01             | %REC/SURR             | 73        | 24-113       |                 |
| 2,4,6-TRIBROMOPHEN                     | UD             | %REC/SURR<br>INITIALS | 74<br>PL  | 19-122       |                 |
| ANALYST                                |                | INTTALS               | РÐ        |              |                 |

Comments:

RS Date Extracted: 01-APR-96 RSD Date Extracted: 01-APR-96

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# {0) Page 4 Date 24-Apr-96

|                            | "QC Report"                                                                                                                                    |  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Batch:<br>Analysis Method: | Soil Reagent<br>ALS023<br>8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, 4<br>3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, 4 |  |

RS Date Analyzed: 08-APR-96 RSD Date Analyzed: 04-APR-96

| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZENE<br>N-NITRO-DI-N-PROPYLAMINE<br>1,2,4 TRICHLOROBENZENE<br>4-CHLORO-3-METHYLPHENOL<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE<br>Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6 | Spike<br>Added<br>3333<br>1667<br>1667<br>1667<br>3333<br>1667<br>3333<br>1667<br>3333<br>1667 | Sample<br>Conc<br><330<br><330<br><330<br><330<br><330<br><330<br><330<br><1700<br><330<br><1700<br><330 | RS<br>Conc<br>2433<br>2400<br>1300<br>1300<br>2500<br>1300<br>2567<br>1133<br>2867<br>1067 | RS<br>%Rec<br>73<br>72<br>78<br>66<br>78<br>75<br>78<br>75<br>86<br>64<br>72<br>83<br>76 | RSD<br>2300<br>2633<br>1400<br>1333<br>1400<br>2833<br>1467<br>2633<br>1367<br>2667<br>1133 | RSD<br>%Rec<br>69<br>79<br>84<br>80<br>84<br>85<br>88<br>82<br>80<br>68<br>81<br>85<br>90<br>85 | RPD<br>6<br>9<br>7<br>19<br>7<br>12<br>12<br>3<br>19<br>7<br>6 | RPD<br>Lmts<br>27<br>32<br>25<br>25<br>24<br>26<br>19<br>50<br>21<br>20<br>23 | Rec<br>Lmts<br>5-112<br>38-123<br>50-111<br>39-121<br>49-115<br>53-115<br>32-126<br>56-118<br>31-146<br>52-115<br>23-120<br>30-115<br>18-137<br>24-113 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| PHENOL-D6<br>2-FLUOROPHENOL<br>24,6-TRIBROMOPHENOL                                                                                                                                                                                                                                                                        |                                                                                                |                                                                                                          |                                                                                            | 76<br>75<br>78                                                                           |                                                                                             | 85<br>86<br>84                                                                                  |                                                                |                                                                               | 24-113<br>25-121<br>19-122                                                                                                                             |

Comments:

Notes:

s: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 5 Date 24-Apr-96

|                                                                                                                                                                                                                       |                                                  |                                                                                        | "QC Rep                                                                                            | ort"                                                                   |                                                                        |                                                                               |                                                                               |                                                            |                                                                         |                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method:                                                                                                                                                            | Soil Matri<br>ALS023<br>8270 / SW-<br>3550 / SW- | 846, 3rd                                                                               | Edition,<br>Edition,                                                                               | September<br>September                                                 | 1986 a<br>1986 a                                                       | and Rev<br>and Rev                                                            | 7. 1, Ju<br>7. 1, Ju                                                          | ly 1<br>ly 1                                               | 992.<br>992.                                                            |                                                                                                                          |
| Dry Weight %: 71<br>Sample Spiked: 603                                                                                                                                                                                | 602-1                                            |                                                                                        | Analyzec<br>e Analyze                                                                              |                                                                        |                                                                        |                                                                               | ite Extra<br>Date Extr                                                        |                                                            |                                                                         | 1-APR-96<br>1-APR-96                                                                                                     |
| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZEN<br>N-NITRO-DI-N-PROPY<br>1,2,4 TRICHLOROBEN<br>4-CHLORO-3-METHYLF<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | ILAMINE<br>JZENE<br>PHENOL                       | Spike<br>Added<br>47<br>23<br>23<br>23<br>47<br>23<br>47<br>23<br>47<br>23<br>47<br>23 | Sample<br>Conc<br><35<br><14<br><14<br><14<br><35<br><14<br><35<br><14<br><35<br><14<br><35<br><14 | MS<br>Conc<br>23<br>15<br>14<br>16<br>22<br>16<br>28<br>15<br>32<br>14 | MS<br>%Rec<br>40<br>65<br>61<br>70<br>47<br>70<br>60<br>65<br>68<br>61 | MSD<br>Conc<br>24<br>29<br>16<br>15<br>17<br>23<br>18<br>35<br>18<br>38<br>16 | MSD<br>%Rec<br>51<br>62<br>70<br>65<br>74<br>49<br>78<br>74<br>78<br>81<br>70 | RPD<br>4<br>3<br>7<br>6<br>4<br>11<br>21<br>18<br>17<br>14 | RPD<br>Lmts<br>22<br>27<br>27<br>21<br>28<br>20<br>42<br>23<br>33<br>31 | Rec<br>Lmts<br>40-103<br>39-104<br>43-109<br>29-117<br>49-126<br>32-117<br>47-126<br>1-124<br>43-110<br>14-144<br>52-115 |
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>4,6-TRIBROMOPHEN                                                                                                | \$OL                                             |                                                                                        |                                                                                                    |                                                                        | 65<br>70<br>72<br>59<br>55<br>54                                       |                                                                               | 71<br>76<br>83<br>63<br>59<br>62                                              |                                                            |                                                                         | 23-120<br>30-115<br>18-137<br>24-113<br>25-121<br>19-122                                                                 |

Comments:

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 6 Date 24-Apr-96

#### Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUTUG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS. PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD. ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS. DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLM01.8, AUGUST 1991.

| LP =  | LEVERNE PETERSON   | RW = | RITA WINGO      |
|-------|--------------------|------|-----------------|
| DWB = | DAVID BOWERS       | LD = | LARRY DILMORE   |
| DB =  | DENNIS BESON       | DC ⇒ | DAVID CELESTIAL |
| LL =  | LANCE LARSON       | RB = | RAFAEL BARRAZA  |
| JA =  | JENNIFER ALEXANDER | PL = | PAUL LESCHENSKY |

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Quality Control Report

Analysis: Group of Single Wetchem

Accession: 603254 Client: Project Number: CSX TRANSPORTATION 4365B Project Name: Project Location: Department: CSX GREENVILLE GREENVILLE, SC WET CHEM

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"WetChem Quality Control Report"

{0) Page 1 Date 25-Mar-96

| Parameter:                                                  | SULFATE                                       |
|-------------------------------------------------------------|-----------------------------------------------|
| Batch Id:                                                   | SEW016                                        |
| Blank Result:                                               | <10                                           |
| Anal. Method:                                               | 375.4                                         |
| Prep. Method:                                               | N/A                                           |
| Analysis Date:                                              | 25-MAR-96                                     |
| Prep. Date:                                                 | 25-MAR-96                                     |
| Sample Dup                                                  | lication                                      |
| Sample Dup:                                                 | 603213-1                                      |
| Rept Limit:                                                 | <10                                           |
| Sample Result:                                              | <10                                           |
| Dup Result:                                                 | <10                                           |
| Sample RPD:                                                 | N/C                                           |
| Max RPD:                                                    | 10                                            |
| Dry Weight%                                                 | N/A                                           |
| Matrix Spi                                                  | ke                                            |
| Sample Spiked:                                              | 603213-1                                      |
| Rept Limit:                                                 | <10                                           |
| Sample Result:                                              | <10                                           |
| Spiked Result:                                              | 26                                            |
| Spike Added:                                                | 20                                            |
| % Recovery:                                                 | 130                                           |
| % Rec Limits:                                               | 51-151                                        |
| Dry Weight%                                                 | N/A                                           |
| ICV                                                         | <u>, , , , , , , , , , , , , , , , , , , </u> |
| ICV Result:                                                 | 19                                            |
| True Result:                                                | 20                                            |
| % Recovery:                                                 | 95                                            |
| % Rec Limits:                                               | 90-110                                        |
| LCS                                                         |                                               |
| LCS Result:<br>True Result:<br>% Recovery:<br>% Rec Limits: |                                               |

[0] Page 2 Date 25-Mar-96 ---- Common Footnotes WetChem -----N/A = NOT APPLICABLE.N/S = NOT SUBMITTED.N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY. N/D = NOT DETECTED.DISS. OR D = DISSOLVED T & D = TOTAL AND DISSOLVED R = REACTIVE T = TOTALG = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL". Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE. # = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE. + = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE. \* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR TO ANALYSIS) @ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO DIGESTION) P = ANALYTICAL (POST DIGESTION) SPIKE. I = DUPLICATE INJECTION. & = AUTOMATED F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION. N/C+ = NOT CALCULABLE N/C\* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION. H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL" Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS. NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". SAMPLE IS NON-HOMOGENEOUS. = DETECTION LIMITS RAISED DUE TO CLP METHOD NOT REQUIRING A CONCENTRATION STEP FOR CN (\*) (CA) = SEE CORRECTIVE ACTIONS FORM. SW-846. 3rd Edition, September 1986 and Revision 1, July 1992. EPA 600/4-79-020, Revised March 1983. STANDARD METHODS, 17TH ED., 1989 NIOSH Manual of Analytical Methods, 3rd Edition. ANNUAL BOOK OF ASTM STANDARDS, VOLUME 11.01, 1991. 1. COLIFORM. COLIFORM PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE LOGARITHM OF COLONIES PER 100 MLS OF SAMPLE ON DUPLICATE PLATES. 2. PH. PH PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS. 3. FLASHPOINT. FLASHPOINT PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS. IF FLASHPOINT IS LESS THAN 25 DEGREES CELSIUS, THE DETECTION LIMIT BECOMES THE INITIAL STARTING TEMPERATURE. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION). RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. DPH = DOLLY P. HWANG SG = SCOTT GRESHAM RB = REBECCA BROWN NC = NICOLE CALL CF = CHRISTINE FOSTER NSB = NANCY S. BUTLER MM = MARY MOLONEY ED = ESTHER DANTIN RH = RICKY HAGENDORFER AB = ANDY BROTHERTON AMC = A. MICKEY CROW BH = BARRY HICK

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Quality Control Report

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Analysis: SW 846 8260 TABLE SIX

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Accession: 603254 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: CSX GREENVILLE Project Location: GREENVILLE, SC Department: ORGANIC/MS

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(0) Page 1
Date 31-Mar-96

"QC Report"

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| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                   | Units:       | Results: | Reporting Limits:                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|---------------------------------------------------------------------------------------------|
| Parameters:<br>ACROLEIN<br>ACETONE<br>ACETONITRILE<br>ACRYLONITRILE<br>ALLYL CHLORIDE<br>BENZENE<br>BROMOCHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMOMETHANE<br>2 - BUTANONE<br>CARBON DISULFIDE<br>CHLOROPRENE<br>CARBON TETRACHLORIDE<br>CHLOROBENZENE<br>CHLOROETHANE<br>CHLOROFORM<br>CHLOROFORM<br>CHLOROFORM<br>CHLOROFORM<br>CHLOROFOLUENE<br>4 - CHLOROTOLUENE<br>CIS 1,2 DICHLOROETHYLENE  | UG/L         | ND       | 100                                                                                         |
| ACREMIE                                                                                                                                                                                                                                                                                                                                                                                                                       | ŪĠ/L         | ND       | 10                                                                                          |
| ACCIONE                                                                                                                                                                                                                                                                                                                                                                                                                       | ŬĠ/Ľ         | ND       | 100                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                               | ŬĜ/L         | ND       | 100                                                                                         |
| ACKILONIIKILLE<br>NI VI CULOBIDE                                                                                                                                                                                                                                                                                                                                                                                              | UG/L         | ND       | 100                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                               | UG/L         | ND       | 5                                                                                           |
| BENZENE<br>BROMOCULOROMETHANE                                                                                                                                                                                                                                                                                                                                                                                                 | UG/L         | ND       | 5                                                                                           |
| BRUMULHLURUMEITANE                                                                                                                                                                                                                                                                                                                                                                                                            | UG/L         | ND       | 5                                                                                           |
| BROMODICULODOMETUNE                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L         | ND       | ר<br>ר                                                                                      |
| BROMODICHLOROMEINANE                                                                                                                                                                                                                                                                                                                                                                                                          | UG/L         | ND       | 5                                                                                           |
| BROMOFORM                                                                                                                                                                                                                                                                                                                                                                                                                     | UG/L         | ND       | 5                                                                                           |
| BROMOMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                  | UG/L<br>UG/L | ND       |                                                                                             |
| Z-BUTANONE                                                                                                                                                                                                                                                                                                                                                                                                                    |              | ND       | 5                                                                                           |
| CARBON DISOLFIDE                                                                                                                                                                                                                                                                                                                                                                                                              | UG/L         | ND       | 5                                                                                           |
| CHLOROPRENE                                                                                                                                                                                                                                                                                                                                                                                                                   | UG/L         |          |                                                                                             |
| CARBON TETRACHLORIDE                                                                                                                                                                                                                                                                                                                                                                                                          | UG/L         | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5           |
| CHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/L         | ND       | 5                                                                                           |
| CHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                  | UG/L         | ND       | 5                                                                                           |
| CHLOROFORM                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/L         | ND       | 5                                                                                           |
| CHLOROMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/L         | ND       | 5                                                                                           |
| 2 - CHLOROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                             | UG/L         | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5                                    |
| 4 - CHLOROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                             | UG/L         | NÐ       | 5                                                                                           |
| 4-CHLOROTOLDENE<br>CIS 1,2 DICHLOROETHYLENE<br>CHLORODIBROMOMETHANE<br>1,2 DIBROMOETHANE                                                                                                                                                                                                                                                                                                                                      | UG/L         | ND       | 5                                                                                           |
| CHLORODIBROMOMETHANE                                                                                                                                                                                                                                                                                                                                                                                                          | UG/L         | ND       | 5                                                                                           |
| 1,2 DIBROMOETHANE                                                                                                                                                                                                                                                                                                                                                                                                             | UG/L         | ND       | 5                                                                                           |
| 1,2-DIBROMO-3-CHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                   | UG/L         | ND       | 5                                                                                           |
| 1,4-DICHLORO-2-BUTENE                                                                                                                                                                                                                                                                                                                                                                                                         | UG/L         | ND       | 5                                                                                           |
| DIBROMOMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                | UG/L         | ND       | 5                                                                                           |
| 1,4-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L         | ND       | 5                                                                                           |
| 1, 3-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                          | UG/L         | ND       | 5                                                                                           |
| 1,2-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L         | ND       | 5                                                                                           |
| DICHLORODIFLUOROMETHANE                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L         | ND       | 5                                                                                           |
| 1,1-DICHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                            | UG/L         | ND       | 5                                                                                           |
| 1,2 DIBROMOETHANE<br>1,2 -DIBROMO-3 - CHLOROPROPANE<br>1,4 -DICHLORO-2 - BUTENE<br>DIBROMOMETHANE<br>1,4 -DICHLOROBENZENE<br>1,3 -DICHLOROBENZENE<br>1,2 -DICHLOROBENZENE<br>DICHLORODIFLUOROMETHANE<br>1,2 -DICHLOROETHANE<br>1,2 -DICHLOROETHANE<br>1,3 DICHLOROETHANE<br>1,3 DICHLOROPROPANE<br>2,2 -DICHLOROPROPANE<br>1,2 -DICHLOROPROPANE<br>1,2 -DICHLOROPROPANE<br>1,2 -DICHLOROPROPENE<br>TRANS-1,3 -DICHLOROPROPENE | UG/L         | ND       | 5                                                                                           |
| 1,1-DICHLOROETHENE                                                                                                                                                                                                                                                                                                                                                                                                            | UG/L         | ND       | 5                                                                                           |
| 1.3 DICHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L         | ND       | 5                                                                                           |
| 2.2-DICHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L         | NÐ       | 5                                                                                           |
| 1, 2-DTCHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                          | UG/L         | ND       | 5                                                                                           |
| CIS-1.3-DICHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L         | ND       | 5                                                                                           |
| TRANS-1.3-DICHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                     | UG/L         | ND       | 5                                                                                           |
| 1 1 DICHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L         | ND       | 5                                                                                           |
| ETHYL BENZENE                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/L         | ND       | 5                                                                                           |
| CIS-1,3-DICHLOROPROPENE<br>TRANS-1,3-DICHLOROPROPENE<br>1,1 DICHLOROPROPENE<br>ETHYL BENZENE<br>METHYL METHACRYLATE<br>METHYL METHACRYLATE<br>4-METHYL-2-PENTANONE                                                                                                                                                                                                                                                            | ŬG/L         | ND       | ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ |
| METHACRYLONITRILE                                                                                                                                                                                                                                                                                                                                                                                                             | UG/L         | ND       | 5                                                                                           |
| 4 -METHYL-2-PENTANONE                                                                                                                                                                                                                                                                                                                                                                                                         | ŬĠ/L         | ND       | 5                                                                                           |
| HEXACHLOROBUTADIENE                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L         | ND       | 5                                                                                           |
| 2-HEXANONE                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/L         | ND       | 5                                                                                           |
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"OC Report"

| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method: | Water Blank<br>MAW025<br>8260 / SW-846,<br>N/A | "QC Report"<br>3rd Edition, | September | 1986 and Rev. | 1, July 1992. | _ |
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| Barameters,                                                |                                                | Units                       | Results:  | Reporting     | Limits:       |   |

| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Units:                                                       | Results:                                                                        | Reporting Limits:                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Parameters:<br>ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>TERT-BUTYL BENZENE<br>1,1,2-TETRACHLOROETHANE<br>1,1,2-TETRACHLOROETHANE<br>TOLUENE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>1,1,1-TRICHLOROETHANE<br>1,2,3 TRICHLOROETHANE<br>1,2,3 TRICHLOROETHANE<br>1,2,4 TRICHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>1,2,4-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>VINYL ACETATE<br>VINYL CHLORIDE<br>M,P-XYLENE<br>DIBROMOFLUOROMETHANE<br>BROMOFLUOROBENZENE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>10<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | %REC/SURR<br>%REC/SURR<br>%REC/SURR<br>INITIALS              | 101<br>101                                                                      | 89-116<br>88-110<br>86-115                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                              |                                                                                 |                                                                                                   |

Comments:

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Limits:

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"QC Report"

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|---------------------|----------------|--------------|------|------------|-----------|
| Parameters:         |                | Units:       |      | Results:   | Reporting |
| ACROLEIN<br>ACETONE |                | UG/L<br>UG/L |      | ND<br>ND   | 100<br>10 |
| ACETONITRILE        |                | UG/L         |      | ND         | 100       |
| ACRYLONITRILE       |                | UG/L         |      | ND         | 100       |
| ALLYL CHLORIDE      |                | UG/L         |      | ND         | 100       |
| BENZENE             |                | UG/L         |      | ND         | 5         |

| ADDID CHLORIDE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.07 1 | ND    | 100    |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|--------|--|
| BENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UG/L   | ND    | 5      |  |
| BROMOCHLOROMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L   | ND    | 5      |  |
| BROMOBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ŪĠ/L   | ND    | ŝ      |  |
| BROMODICHLOROMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        | ND    | 5      |  |
| BROMOFORM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | ND    | 5      |  |
| BROMOMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        | ND    | 5      |  |
| 2 - RUTANONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        | ND    | 2      |  |
| CADRON DIGHTETOE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        | ND    | 5      |  |
| CHLODODDENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        | ND    |        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        | ND    |        |  |
| CHLODODENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | ND    | 2      |  |
| CHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | ND    | 2      |  |
| CHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        | ND    | 5      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        | ND    | 5      |  |
| CHLOROMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | UG/L   | ND    | 5      |  |
| 2 - CHLOROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/L   | ND    | 5      |  |
| 4-CHLOROTOLUENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | UG/L   | ND    | 5      |  |
| CIS 1,2 DICHLOROETHYLENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UG/L   | ND    | 5      |  |
| CHLORODIBROMOMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UG/L   | ND    | 5      |  |
| 1,2 DIBROMOETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UG/L   | ND    | 5      |  |
| 1,2-DIBROMO-3-CHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | UG/L   | ND    | 5      |  |
| 1,4-DICHLORO-2-BUTENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | UG/L   | ND    | 5      |  |
| DIBROMOMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L   | ND    | 5      |  |
| 1,4-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/L   | ND    | 5      |  |
| 1,3-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/L   | ND    | 5      |  |
| 1,2-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/L   | ND    | 5      |  |
| DICHLORODIFLUOROMETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UG/L   | ND    | 5      |  |
| 1,1-DICHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L   | ND    | 5      |  |
| 1,2-DICHLOROETHANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L   | ND    | 5      |  |
| 1,1-DICHLOROETHENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L   | ND    | 5      |  |
| 1.3 DICHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/L   | ND    | 5      |  |
| 2.2-DICHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ŪĠ/Ĺ   | ND    | 5      |  |
| 1.2-DICHLOROPROPANE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/L   | ND    | 5      |  |
| CTS-1.3-DICHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ŬĜ/L   | ND    | Š      |  |
| TRANS-1 3-DICHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | ND    | . Ĕ    |  |
| 1 1 DICHLOROPROPENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        | ND    | 2<br>C |  |
| FTHYL BENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | ND    | л<br>Б |  |
| METHYL METHACRYLATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UG/L   | ND    | 5      |  |
| BENZENE<br>BROMOCHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMOMETHANE<br>2 - BUTANONE<br>CARBON DISULFIDE<br>CHLOROPRENE<br>CARBON TETRACHLORIDE<br>CHLOROPRENE<br>CHLOROBENZENE<br>CHLOROETHANE<br>CHLOROFORM<br>CHLOROMETHANE<br>2 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>4 - CHLOROTOLUENE<br>(IS 1, 2 DICHLOROETHYLENE<br>CHLORODIBROMOMETHANE<br>1, 2 DIBROMOETHANE<br>1, 2 DIBROMOETHANE<br>1, 2 - DIBROMO- 3 - CHLOROPROPANE<br>1, 4 - DICHLOROE - 2 - BUTENE<br>DIBROMOMETHANE<br>1, 4 - DICHLOROBENZENE<br>1, 3 - DICHLOROBENZENE<br>1, 2 - DICHLOROBENZENE<br>DICHLORODIFLUOROMETHANE<br>1, 1 - DICHLOROETHANE<br>1, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>2, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPANE<br>1, 2 - DICHLOROPROPENE<br>TRANS - 1, 3 - DICHLOROPROPENE<br>1, 1 DICHLOROPROPENE<br>ETHYL BENZENE<br>METHYL METHACRYLATE<br>METHACRYLONITRILE<br>4 - METHYL - 2 - PENTANONE<br>HEXACHLOROBUTADIENE<br>2 - HEXANONE | UG/L   |       | -<br>- |  |
| Δ-ΜΓΤΗΥΙ 2- ΡΕΝΤΔΝΟΝΕ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        | ND    | 5 5    |  |
| HEYACHLODOBIITADI ENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |       | 5<br>5 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |       | 5      |  |
| 2 - HEAMOND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 00/1   | IN LA | J      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |       |        |  |

[0) Page 4 Date 31-Mar-96

"QC Report" Title: Water Blank Batch: MAW025 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Units:                                                       | Results:                                                                        | Reporting Limits:                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>STYRENE<br>TERT-BUTYL BENZENE<br>1,1,2,2-TETRACHLOROETHANE<br>1,1,2,2-TETRACHLOROETHANE<br>TETRACHLOROETHENE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIAMINE<br>TRANS 1,2 DICHLOROETHYLENE<br>1,1,2-TRICHLOROETHANE<br>1,2,3 TRICHLOROETHANE<br>1,2,4 TRICHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>TRICHLOROFLUOROMETHANE<br>1,2,4-TRIMETHYLBENZENE<br>1,2,4-TRIMETHYLBENZENE<br>1,2,4-TRIMETHYLBENZENE<br>1,2,4-TRIMETHYLBENZENE<br>1,2,5-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>VINYL ACETATE<br>VINYL CHLORIDE<br>M, P-XYLENE<br>O-XYLENE<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 5<br>10<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

(0) Page 5 Date 31-Mar-96

| Blank Id: A                                             | Title:<br>Batch:<br>Analysis Me<br>Extraction                                                                                                                                                                      |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| d: A Date Analyzed: 25-MAR-96 Date Extracted: 25-MAR-96 | "QC Report"<br>"QC Report"<br>Batch:<br>Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.<br>Extraction Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. |

| 1,4 - DICHLOROBENZENE<br>1,3 - DICHLOROBENZENE<br>DICHLORODIFLUOROMETHANE<br>1,1 - DICHLOROETHANE<br>1,1 - DICHLOROETHANE<br>1,2 - DICHLOROETHANE<br>1,2 - DICHLOROPROPANE<br>2,2 - DICHLOROPROPANE<br>CIS - 1,3 - DICHLOROPROPENE<br>TRANS - 1,3 - DICHLOROPROPENE<br>1,1 DICHLOROPROPENE<br>1,1 DICHLOROPROPENE<br>ETHYL BENZENE<br>METHYL METHACRYLATE<br>METHYL METHACRYLATE<br>METHYL - 2 - PENTANONE<br>HEXACHLOROBUTADIENE<br>2 - HEXANONE |                                        | Blank Id: A Date Analyzed: 25-<br>Parameters: |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        | 25-MAR-96 [<br>Units:                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        | Date Extracted:<br>Results:                   |
| លលលលលលលលលលលលលលលល<br>១០០០០០០០០០០០០០០០០០០០០                                                                                                                                                                                                                                                                                                                                                                                                         | 00000000000000000000000000000000000000 | Reporting Limits:                             |

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| Title:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | High Soil Bla                                                                                | "QC Report"<br>ank                                                                                                                                                                                                 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                                                              | [0) Page 6<br>Date 31-Mar-96         |
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-------------------------------------------------------------------|--------------------------------------|
| Batch:<br>Analysis Method:<br>Extraction Method:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MAS026<br>8260 / SW-846<br>8260 / SW-846                                                     | 5, 3rd Edition,<br>5, 3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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                  | 1986 and Rev<br>1986 and Rev                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7. 1, July 1992.<br>7. 1, July 1992. |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                              | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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                                                              | g Limits:                            |
| ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>STYRENE<br>TERT-BUTYL BENZENE<br>1,1,2,2-TETRACHLOR(<br>1,1,2,2-TETRACHLOR(<br>1,1,2,2-TETRACHLOR(<br>1,1,2,2-TETRACHLOR(<br>TOLUENE DIISOCYANA'<br>TOLUENE DIISOCYANA'<br>TOLUENE DIISOCYANA'<br>TOLUENE DIISOCYANA'<br>TOLUENE DIAMINE<br>TRANS 1,2 DICHLOR(<br>1,1,1-TRICHLOROETH<br>1,2,3 TRICHLOROETH<br>1,2,3 TRICHLOROBEN'<br>TRICHLOROFTUOROMETT<br>1,2,4-TRIMETHYLBEN'<br>VINYL ACETATE<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>DIBROMOFLUOROMETHAN<br>TOLUENE-D8<br>BROMOFLUOROBENZENE<br>ANALYST | DETHANE<br>DETHANE<br>TE<br>DETHYLENE<br>ANE<br>ZENE<br>ZENE<br>HANE<br>PANE<br>ZENE<br>ZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/S<br>S<br>NRR<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S 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|                                      |

Comments:

[0] Page 7 Date 31-Mar-96

"QC Report"

Title: Low Soil Blank Batch: MAS025 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

## Blank Id: B Date Analyzed: 22-MAR-96 Date Extracted: N/A

| Parameters:                 | Units:  | Results: | Reporting Limits:                         |
|-----------------------------|---------|----------|-------------------------------------------|
| ACROLEIN                    | UG/KG   | ND       | 100                                       |
| ACETONE                     | UG/KG   | ND       | 10                                        |
| ACETONITRILE                | UG/KG   | ND       | 100                                       |
| ACRYLONITRILE               | UG/KG   | ND       | 100                                       |
| ALLYL CHLORIDE              | UG/KG   | ND       | 100                                       |
| BENZENE                     | UG/KG   | ND       | 5                                         |
| BROMOCHLOROMETHANE          | UG/KG   | ND       | 5                                         |
| BROMOBENZENE                | UG/KG   | ND       | 5                                         |
| BROMODICHLOROMETHANE        | UG/KG   | ND       | 5                                         |
| BROMOFORM                   | UG/KG   | ND       | 5                                         |
| BROMOMETHANE                | UG/KG   | ND       | 5                                         |
| 2 - BUTANONE                | UG/KG   | ND       | 5<br>5<br>5<br>5<br>5                     |
| CARBON DISULFIDE            | UG/KG   | ND       |                                           |
| CHLOROPRENE                 | UG/KG   | ND       | 5                                         |
| CARBON TETRACHLORIDE        | UG/KG   | ND       | 5                                         |
| CHLOROBENZENE               | UG/KG   | ND       | ວ<br>ເ                                    |
| CHLOROETHANE                | UG/KG   | ND       | 5<br>5                                    |
| CHLOROFORM                  | UG/KG   | ND       | 5                                         |
| CHLOROMETHANE               | UG/KG   | ND       | 5                                         |
| 2 - CHLOROTOLUENE           | UG/KG   | ND       | с<br>Г                                    |
| 4 - CHLOROTOLUENE           | UG/KG   | ND       | 5                                         |
| CIS 1,2 DICHLOROETHYLENE    | UG/KG   | ND       | 5                                         |
| CHLORODIBROMOMETHANE        | UG/KG   | ND       | 5                                         |
| 1,2 DIBROMOETHANE           | UG/KG   | ND       | 5                                         |
| 1,2-DIBROMO-3-CHLOROPROPANE | UG/KG   | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 1,4-DICHLORO-2-BUTENE       | UG/KG   | ND       | 5                                         |
| DIBROMOMETHANE              | UG/KG   | ND       | 5                                         |
| 1,4-DICHLOROBENZENE         | UG/KG   | ND       | 5                                         |
| 1,3-DICHLOROBENZENE         | UG/KG   | ND       | 5.                                        |
| 1,2-DICHLOROBENZENE         | UG/KG   | ND       |                                           |
| DICHLORODIFLUOROMETHANE     | UG/KG   | ND       | 5                                         |
| 1,1-DICHLOROETHANE          | UG/KG   | ND       | 5<br>5<br>5                               |
| 1,2-DICHLOROETHANE          | UG/KG   | ND       | 5                                         |
| 1,1-DICHLOROETHENE          | UG/KG   | ND       | 5                                         |
| 1,3 DICHLOROPROPANE         | UG/KG   | ND       | 5                                         |
| 2,2-DICHLOROPROPANE         | UG/KG   | ND       | 5<br>5                                    |
| 1,2-DICHLOROPROPANE         | UG / KG | ND       | 5                                         |
| CIS-1,3-DICHLOROPROPENE     | UG/KG   | ND       | 5<br>5                                    |
| TRANS-1, 3-DICHLOROPROPENE  | UG/KG   | ND       | 5                                         |
| 1,1 DICHLOROPROPENE         | UG/KG   | ND       | 5<br>5                                    |
| ETHYL BENZENE               | UG/KG   | ND       | 5                                         |
| METHYL METHACRYLATE         | UG/KG   | ND       | 5<br>5                                    |
| METHACRYLONITRILE           | UG/KG   | ND       | 5                                         |
| 4-METHYL-2-PENTANONE        | UG/KG   | ND       | 5<br>5                                    |
| HEXACHLOROBUTADIENE         | UG/KG   | ND       | 5                                         |
| 2-HEXANONE                  | UG/KG   | ND       | 5                                         |
|                             |         |          |                                           |

[0) Page 8
Date 31-Mar-96

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"QC Report"

Low Soil Blank MAS025 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Title: Batch: Analysis Method: 8260 Extraction Method: N/A

| ISOPROPYL BENZENEUG/KGND5ISOBUTYL ALCOHOLUG/KGND10IODOMETHANEUG/KGND5P-ISOPROPYLTOLUENEUG/KGND5METHYLENE CHLORIDEUG/KGND5NAPHTHALENEUG/KGND5N-BUTYL BENZENEUG/KGND5N-PROPYL BENZENEUG/KGND5SEC-BUTYL BENZENEUG/KGND5SEC-BUTYL BENZENEUG/KGND5TERT-BUTYL BENZENEUG/KGND51,1,2-TETRACHLOROETHANEUG/KGND5TOLUENEUG/KGND5TOLUENEUG/KGND5TOLUENEUG/KGND10TRANS 1,2DICHLOROETHANEUG/KGND51,1,2-TRICHLOROETHANEUG/KGND51,1,2-TRICHLOROETHANEUG/KGND51,1,2-TRICHLOROETHANEUG/KGND51,1,2-TRICHLOROETHANEUG/KGND51,1,2-TRICHLOROETHANEUG/KGND51,1,2-TRICHLOROETHANEUG/KGND51,2,3TRICHLOROETHANEUG/KGND51,2,4TRICHLOROBENZENEUG/KGND51,2,4TRICHLOROBENZENEUG/KGND5 | Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Results:                                                                        | Reporting Limits:                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------|
| TRICHLOROETHENEUG/KGND5TRICHLOROFLUOROMETHANEUG/KGND51,2,3 TRICHLOROPROPANEUG/KGND51,2,4-TRIMETHYLBENZENEUG/KGND51,3,5-TRIMETHYLBENZENEUG/KGND5VINYL ACETATEUG/KGND5VINYL CHLORIDEUG/KGND5O-XYLENEUG/KGND5DIBROMOFLUOROMETHANE%REC/SURR10380-120TOLUENE-D8%REC/SURR10081-117BROMOFLUOROBENZENEINITIALSLL4-121                                                                                                                                                                                                                                                                                                                                           | ISOPROPYL BENZENE<br>ISOBUTYL ALCOHOL<br>IODOMETHANE<br>P-ISOPROPYLTOLUENE<br>METHYLENE CHLORIDE<br>NAPHTHALENE<br>N-BUTYL BENZENE<br>N-PROPYL BENZENE<br>PROPIONITRILE<br>SEC-BUTYL BENZENE<br>STYRENE<br>TERT-BUTYL BENZENE<br>1,1,2-TETRACHLOROETHANE<br>1,1,2,2-TETRACHLOROETHANE<br>TETRACHLOROETHENE<br>TOLUENE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIISOCYANATE<br>TOLUENE DIAMINE<br>TRANS 1,2 DICHLOROETHYLENE<br>1,1,2-TRICHLOROETHANE<br>1,2,3 TRICHLOROBENZENE<br>1,2,4 TRICHLOROBENZENE<br>1,2,4-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>1,3,5-TRIMETHYLBENZENE<br>VINYL CHLORIDE<br>M,P-XYLENE<br>O-XYLENE<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 10<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |

Comments:



"QC Report" Water Reagent Title: MAW025 Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

RS Date Analyzed: 22-MAR-96 RSD Date Analyzed: 22-MAR-96

RS Date Extracted: N/A RSD Date Extracted: N/A

[0] Page 9 Date 31-Mar-96

| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>56<br>51<br>57<br>52<br>52 | RS<br>%Rec<br>112<br>102<br>114<br>104<br>104 | RSD<br>Conc<br>57<br>51<br>57<br>53<br>53 | RSD<br>%Rec<br>114<br>102<br>114<br>106<br>106 | RPD<br>2<br>0<br>2<br>2<br>2 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>72-122<br>81-114<br>87-120<br>83-120<br>87-113 |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------------------|---------------------------------------------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                              |                                          | 103<br>105<br>99                              |                                           | 105<br>106<br>99                               |                              |                                                 | 89-116<br>88-110<br>86-115                                    |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

RS Date Extracted: 25-MAR-96 RSD Date Extracted: 25-MAR-96

#### [0) Page 10 Date 31-Mar-96

"QC Report" Low Soil Reagent Title: MAS026 Batch: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.

RS Date Analyzed: 25-MAR-96 RSD Date Analyzed: 25-MAR-96

| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>44<br>45<br>50<br>45<br>45 | RS<br>%Rec<br>88<br>90<br>100<br>90<br>90 | RSD<br>Conc<br>47<br>47<br>51<br>47<br>47<br>47 | RSD<br>%Rec<br>94<br>94<br>102<br>94<br>94 | RPD<br>7<br>4<br>2<br>4<br>4 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------------|--------------------------------------------|------------------------------|-------------------------------------------------|--------------------------------------------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                                    |                                          | 102<br>100<br>93                          |                                                 | 101<br>104<br>94                           |                              |                                                 | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

s: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

RS Date Extracted: N/A RSD Date Extracted: N/A

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[0) Page 11 Date 31-Mar-96

#### "QC Report"

Title: Low Soil Reagent MAS025 Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

RS Date Analyzed: 22-MAR-96 RSD Date Analyzed: 22-MAR-96

| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>56<br>51<br>57<br>52<br>52 | RS<br>%Rec<br>112<br>102<br>114<br>104<br>104 | RSD<br>Conc<br>57<br>51<br>57<br>53<br>53 | RSD<br>%Rec<br>114<br>102<br>114<br>106<br>106 | RPD<br>2<br>0<br>2<br>2<br>2 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------------------|--------------------------------------------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                                    |                                          | 103<br>105<br>99                              |                                           | 105<br>106<br>99                               |                              |                                                 | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.



[0) Page 12 Date 31-Mar-96

#### "QC Report"

Water Matrix Title: MAW025 Batch: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

| Dry Weight %: N/A<br>Sample Spiked: 603254-2                                                |                                              | Analyzed:<br>Analyzed                              |                                          |                                               | MS Date<br>MSD Dat                        |                                                |                               |                                           | /A<br>/A                                                      |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------------------|-------------------------------|-------------------------------------------|---------------------------------------------------------------|
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | MS<br>Conc<br>50<br>50<br>53<br>50<br>51 | MS<br>%Rec<br>100<br>100<br>106<br>100<br>102 | MSD<br>Conc<br>52<br>51<br>55<br>51<br>51 | MSD<br>%Rec<br>104<br>102<br>110<br>102<br>102 | R PD<br>4<br>2<br>4<br>2<br>0 | RPD<br>Lmts<br>14<br>24<br>16<br>15<br>15 | Rec<br>Lmts<br>74-124<br>79-116<br>65-142<br>89-114<br>85-116 |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                                    |                                          | 102<br>102<br>98                              |                                           | 104<br>105<br>108                              |                               |                                           | 89-116<br>88-110<br>86-115                                    |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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[0) Page 13 Date 31-Mar-96

"QC Report"

Low Soil Matrix Title: Batch: MAS026 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.

| Dry Weight %:<br>Sample Spiked:                                                             | MS Date Analyzed:<br>MSD Date Analyzed: |                |            | MS Date Extracted:<br>MSD Date Extracted: |                |                                             |                                                              |  |  |
|---------------------------------------------------------------------------------------------|-----------------------------------------|----------------|------------|-------------------------------------------|----------------|---------------------------------------------|--------------------------------------------------------------|--|--|
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added                          | Sample<br>Conc | MS<br>Conc | MS MSD<br>%Rec Conc                       | MSD<br>%Rec RP | RPD<br>D Lmts<br>42<br>20<br>20<br>44<br>20 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |  |  |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                         |                |            |                                           |                |                                             | 80-120<br>81-117<br>74-121                                   |  |  |

Comments:

NO MATRIX SPIKE/MATRIX SPIKE DUPLICATE AVALIABLE DUE TO HIGH DILUTION.

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 14 Date 31-Mar-96

#### "OC Report" Low Soil Matrix Title: MAS025 Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A Dry Weight %: 85 MS Date Analyzed: 23-MAR-96 MS Date Extracted: N/A

| Sample Spiked: 603254–13                                                                    | MSD Date                                           | e Analyzec                                                     | 1: 23-MAR                                | -96                                          | MSD Da                                    | te Exti                                        | racte                        | ed: N,                                    | / A                                                          |
|---------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------|------------------------------------------|----------------------------------------------|-------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------------|--------------------------------------------------------------|
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>59<br>59<br>59<br>59<br>59<br>59 | Sample<br>Conc<br><5.9<br><5.9<br><5.9<br><5.9<br><5.9<br><5.9 | MS<br>Conc<br>58<br>59<br>64<br>59<br>60 | MS<br>%Rec<br>98<br>100<br>108<br>100<br>102 | MSD<br>Conc<br>59<br>59<br>64<br>59<br>59 | MSD<br>%Rec<br>100<br>100<br>108<br>100<br>100 | RPD<br>2<br>0<br>0<br>0<br>2 | RPD<br>Lmts<br>42<br>20<br>20<br>44<br>20 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                                    |                                                                |                                          | 100<br>100<br>100                            |                                           | 104<br>102<br>105                              |                              |                                           | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 15 Date 31-Mar-96

#### Common notation for Organic reporting

N/S = NOT SUBMITTEDN/A = NOT APPLICABLED = DILUTED OUTUG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS. PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.

DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLM01.8, AUGUST 1991.

| LP = L  | JEVERNE PETERSON   | RW = | RITA WINGO      |
|---------|--------------------|------|-----------------|
| DWB = D | AVID BOWERS        | LD = | LARRY DILMORE   |
| DB = D  | DENNIS BESON       | DC = | DAVID CELESTIAL |
| LL = L  | JANCE LARSON       | RB = | RAFAEL BARRAZA  |
| JA = J  | JENNIFER ALEXANDER | PL = | PAUL LESCHENSKY |

Quality Control Report

Analysis: BN EXTRACTABLES (8270)

603254 CSX TRANSPORTATION 4365B Accession: Accession:603234Client:CSX TRANSPORTANProject Number:4365BProject Name:CSX GREENVILLEProject Location:GREENVILLE, SCDepartment:ORGANIC/MS

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| Title: Water Blank<br>Batch: ALW023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | "QC Report"                                                  |                                                                                 |                                                  | Date 10-Apr-96                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------|
| Analysis Method: 8270 / SW-846,<br>Extraction Method: 3520 / SW-846,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3rd Edition,<br>3rd Edition,                                 | September 19<br>September 19                                                    | 986 and Rev<br>986 and Rev                       | . 1, July 1992.<br>. 1, July, 1992. |
| Blank Id: A Date Analyzed: 25-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MAR-96 Date                                                  | e Extracted:                                                                    | 18-MAR-96                                        |                                     |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Units:                                                       | Results:                                                                        | Reporting                                        | Limits:                             |
| P-CHLORO-M-CRESOL<br>2-CHLOROPHENOL<br>O-CRESOL<br>M, P CRESOL<br>2, 4 - DICHLOROPHENOL<br>2, 6 - DICHLOROPHENOL<br>2, 6 - DINITRO-O-CRESOL<br>2, 4 - DINITROPOL<br>4, 6 - DINITROPHENOL<br>2, 1 - DINITROPHENOL<br>2, 4 - OINITROPHENOL<br>4-NITROPHENOL<br>PENTACHLOROPHENOL<br>4-NITROPHENOL<br>2, 3, 4, 6 - TETRACHLOROPHENOL<br>2, 4, 5 - TRICHLOROPHENOL<br>2, 4, 5 - TRICHLOROPHENOL<br>2, 4, 6 - TRICHLOROPHENOL<br>ACENAPHTHENE<br>ACENAPHTHENE<br>ACENAPHTHENE<br>ACETYLAMINOFLUORENE<br>4 - AMINOB IPHENYL<br>ANILINE<br>ANTHRACENE<br>ARAMITE<br>BENZO (A) ANTHRACENE<br>BENZO (A) PYRENE<br>BENZO (A) PYRENE<br>BENZO (A) FLUORANTHENE<br>BENZO (A) FLUORANTHENE<br>BENZO (C, H, I) PERYLENE<br>BENZO (C, H, I) PERYLENE<br>BENZYL ALCOHOL<br>BIS (2 - CHLOROETHOXY) METHANE<br>BIS (2 - CHLOROETHOXY) METHANE<br>BIS (2 - CHLOROETHYL) ETHER<br>BIS (2 - CHLOROETHYL) PHTHALATE<br>4 - BROMOPHENYL PHENYL ETHER<br>BIS (2 - CHLOROETHYL) PHTHALATE<br>4 - BROMOPHENYL PHENYL ETHER<br>BUTYLBENZYL PHTHALATE<br>2 - CHLOROANILINE<br>CHLOROBENZILATE<br>2 - CHLOROANILINE<br>CHLOROBENZILATE<br>2 - CHLOROPHENYL PHENYL ETHER<br>BIS (2 - CHLOROPHENYL PHENYL ETHER<br>BUTYLBENZYL PHTHALENE<br>4 - CHLOROPHENYL PHENYL ETHER<br>BUTYLBENZYL PHTHALENE<br>4 - CHLOROPHENYL PHENYL ETHER<br>BIS (2 - CHLOROPHENYL PHENYL ETHER<br>BUTYLBENZYL PHTHALENE<br>4 - CHLOROPHENYL PHENYL ETHER<br>DIBLENZO (A, H) ANTHRACENE<br>DIBLENZO (A, H) ANTHRACENE<br>CHLOROPHENYL PHENYL ETHER<br>CHLOROPHENYL PHENYL ETHER<br>2 - CHLOROPHENYL PHENYL ETHER<br>DIBLENZO (A, H) ANTHRACENE<br>DIBLENZO (A, H) ANTHRACENE<br>DIBLENZOFURAN | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | Reporting 10 10 10 10 10 10 10 10 10 10 10 10 10 | LIMITS:                             |
| 1,2-DICHLOROBENZENE<br>1,3-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UG/L<br>UG/L                                                 | ND<br>ND                                                                        | 10<br>10                                         |                                     |

| Title: Water Blank<br>Batch: ALW023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | "QC Report"                                                  |                                                                                 |                                                                     | [0) Page 2<br>Date 10-Apr-96          |
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| Analysis Method: 8270 / SW-846,<br>Extraction Method: 3520 / SW-846,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3rd Edition,<br>3rd Edition,                                 | September<br>September                                                          | 1986 and Rev<br>1986 and Rev                                        | 7. 1, July 1992.<br>7. 1, July, 1992. |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Units:                                                       | Results:                                                                        | Reporting                                                           | g Limits:                             |
| 1,4-DICHLOROBENZENE<br>3,3'-DICHLOROBENZIDINE<br>DIETHYLPHTHALATE<br>DIMETHOATE<br>P-DIMETHYLANINOAZOBENZENE<br>7,12-DIMETHYLBENZ(A)ANTHRACENE<br>3,3'-DIMETHYLBENZIDINE<br>A,A-DIMETHYLPHENETHYLAMINE<br>DIMETHYLPHTHALATE<br>DI-N-BUTYLPHTHALATE<br>M-DINITROBENZENE<br>2,4-DINITROTOLUENE<br>2,6-DINITROTOLUENE<br>2,6-DINITROTOLUENE<br>DI-N-OCTYLPHTHALATE<br>DIPHENYLAMINE<br>ETHYL METHANESULFONATE<br>FAMPHUR<br>FLUORANTHENE<br>FLUORANTHENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROPHENE<br>HEXACHLOROPHENE<br>HEXACHLOROPROPENE<br>INDENO (1,2,3-CD) PYRENE<br>ISOBAFROLE<br>KEPONE<br>METHAPYRILENE<br>3-METHYLCHOLANTHRENE<br>METHYL METHANESULFONATE<br>1-METHYLNAPHTHALENE<br>2-METHYLNAPHTHALENE<br>2-METHYLNAPHTHALENE<br>2-METHYLNAPHTHALENE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NITROANILINE<br>3-NITROANILINE<br>NITROBENZENE<br>5-NITRO-O-TOLUIDINE<br>4-NITROQUINOLINE-1-OXIDE<br>N-NITROQUINOLINE-1-OXIDE | UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L<br>UG/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 10<br>50<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>1 |                                       |
| N-NITROSODIETHYLAMINE<br>N-NITROSODIMETHYLAMINE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | UG/L<br>UG/L                                                 | ND<br>ND                                                                        | 10<br>10                                                            |                                       |

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| Title:<br>Batch:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Water Blank<br>ALW023                                                                                             | "QC Report" |                                                                    |                                                                                 |              |                                                                                             |                  |          | Date 10-Apr-96 |                |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------|------------------|----------|----------------|----------------|--|--|--|
| Analysis Method:<br>Extraction Method:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8270 / SW-846,<br>3520 / SW-846,                                                                                  | 3rd<br>3rd  | Edition,<br>Edition,                                               | September<br>September                                                          | 1986<br>1986 | and<br>and                                                                                  | Rev.<br>Rev.     | 1,<br>1, | July<br>July,  | 1992.<br>1992. |  |  |  |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                   | U           | nits:                                                              | Results:                                                                        | R            | eport                                                                                       | ing              | Lim      | its:           |                |  |  |  |
| N-NITROSODI-N-BUTY<br>N-NITROSODIPHENYLAI<br>N-NITROSOMETHYLETH<br>N-NITROSOMORPHOLIN<br>N-NITROSOPIPERIDIN<br>N-NITROSOPIPERIDIN<br>PARATHION<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLORONITROBEN<br>PHENACETIN<br>PHENANTHRENE<br>2-PICOLINE<br>P-PHENYLENEDIAMINE<br>PYRENE<br>PYRIDINE<br>SAFROLE<br>SULFOTEPP<br>1,2,4,5-TETRACHLORO<br>THIONAZIN<br>O-TOLUIDINE<br>1,2,4 TRICHLOROBENZENI<br>O,0,0-TRIETHYL PHOS<br>BENZIDINE<br>BIS (2-CHLOROISOPROI<br>2-(SEC BUTYL)4,6-D<br>PHENOL (DINOSEB)<br>N-NITROSO-DI-N-PROI<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>NITROBENZENE-D5<br>2-FLUOROPHENOL<br>PHENOL-D6<br>2,4,6-TRIBROMOPHENO | MINE<br>YLAMINE<br>E<br>NE<br>NZENE<br>OBENZENE<br>ZENE<br>E<br>SPHOROTHIATE<br>PYL) ETHER<br>INITRO-<br>PYLAMINE |             | G/L<br>G/L<br>G/L<br>G/L<br>G/L<br>G/L<br>G/L<br>G/L<br>G/L<br>G/L | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N |              | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | -<br>-<br>-<br>- |          |                |                |  |  |  |
| ANALYST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Ц                                                                                                                 |             | REC/SURR                                                           | 81<br>PL                                                                        | 10           | 0-123                                                                                       | 3                |          |                |                |  |  |  |

Comments:

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| Analysis Method:<br>Extraction Method:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 8270 / SW-846,<br>3550 / SW-846,                                                                         | 3rd Editi<br>3rd Editi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | on, September<br>on, September                                                  | 1986 and Re<br>1986 and Re                               | v. 1,<br>v. 1, | July<br>July | 1992.<br>1992. |
| Blank Id: A Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Analyzed: 03-                                                                                            | APR-96                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Date Extracted                                                                  | d: 19-MAR-96                                             |                |              |                |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Results:                                                                        | Reportin                                                 | g Lim          | its:         |                |
| P-CHLORO-M-CRESOL<br>2-CHLOROPHENOL<br>O-CRESOL<br>M, P CRESOL<br>2, 4 - DICHLOROPHENOL<br>2, 6 - DICHLOROPHENOL<br>2, 4 - DINITROPHENOL<br>4, 6 - DINITROPHENOL<br>2 - NITROPHENOL<br>4 - NITROPHENOL<br>2 - NITROPHENOL<br>4 - NITROPHENOL<br>PENTACHLOROPHENOL<br>PENTACHLOROPHENOL<br>PHENOL<br>2, 3, 4, 6 - TETRACHLORO<br>2, 4, 5 - TRICHLOROPHEN<br>2, 4, 6 - TRICHLOROPHEN<br>4, 6 - TRICHLOROPHEN<br>1, 1000<br>1, 100<br>1, | PHENOL<br>OL<br>OL<br>ENE<br>ENE<br>ENE<br>ENE<br>YLETHYL) ETHER<br>THALATE<br>L ETHER<br>TE<br>YL ETHER | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | g rim          | 105:         |                |
| 1,2-DICHLOROBENZENE<br>1,3-DICHLOROBENZENE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                          | UG/KG<br>UG/KG<br>UG/KG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ND<br>ND<br>ND                                                                  | 10<br>10<br>10                                           |                |              |                |

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[0) Page 5 Date 10-Apr-96

|                                        |                |                |           |              | Date 10-Apr-96   |
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| _ 1 2                                  |                | "QC Report"    |           |              |                  |
| Title:                                 | Soil Blank     |                |           |              |                  |
| Batch:                                 | ALSO21         | and pairing    | Contombor | 100C and Day |                  |
| Analysis Method:<br>Extraction Method: | 8270 / SW-846, | and Edition,   | September | 1986 and Rev | 7. 1, July 1992. |
| Extraction Methou:                     | 3550 / SW-846, | sta Eurcion,   | Septemer  | 1966 and Rev | . 1, July 1992.  |
|                                        |                |                |           |              |                  |
| Parameters:                            |                | Units:         | Results:  | Reporting    | , Limits.        |
| Eurometero.                            |                | 0112000        |           | noporering   | ,                |
| 1,4-DICHLOROBENZEN                     | E              | UG/KG          | ND        | 10           |                  |
| 3,3'-DICHLOROBENZI                     | DINE           | UG/KG          | ND        | 50           |                  |
| DIETHYLPHTHALATE                       |                | UG/KG          | ND        | 10           |                  |
| DIMETHOATE                             |                | UG/KG          | ND        | 10           |                  |
| P-DIMETHYLAMINOAZO                     |                | UG/KG          | ND        | 10           |                  |
| 7,12-DIMETHYLBENZ(2                    |                | UG/KG          | ND        | 10           |                  |
| 3,3'-DIMETHYLBENZI                     |                | UG/KG          | ND        | 10           |                  |
| A, A-DIMETHYLPHENETI                   | HYLAMINE       | UG/KG          | ND        | 10           |                  |
| DIMETHYLPHTHALATE                      | 8              | UG/KG          | ND        | 10           |                  |
| DI-N-BUTYLPHTHALAT                     | E              | UG/KG          | ND        | 10           |                  |
| M-DINITROBENZENE                       |                | UG/KG          | ND        | 10           |                  |
| 2,4-DINITROTOLUENE                     |                | UG/KG          | ND        | 10           |                  |
| 2,6-DINITROTOLUENE                     | F              | UG/KG          | ND        | 10           |                  |
| DI-N-OCTYLPHTHALAT<br>DIPHENYLAMINE    | E              | UG/KG<br>UG/KG | ND<br>ND  | 10<br>10     |                  |
| ETHYL METHANESULFO                     | NATE           | UG/KG          | ND        | 10           |                  |
| FAMPHUR                                |                | UG/KG          | ND        | 10           |                  |
| FLUORANTHENE                           |                | UG/KG          | ND        | 10           |                  |
| FLUORENE                               |                | UG/KG          | ND        | 10 .         |                  |
| HEXACHLOROBENZENE                      |                | ŬĠ/KĠ          | ND        | ĩõ           |                  |
| HEXACHLOROBUTADIEN                     | E              | UG/KG          | ND        | 10           |                  |
| HEXACHLOROCYCLOPEN'                    | TADIENE        | UG / KG        | ND        | 10           |                  |
| HEXACHLOROETHANE                       |                | UG/KG          | ND        | 10           |                  |
| HEXACHLOROPHENE                        |                | UG/KG          | ND        | 10           |                  |
| HEXACHLOROPROPENE                      |                | UG/KG          | ND        | 10           |                  |
| INDENO (1,2,3-CD)                      | PYRENE         | UG/KG          | ND        | 10           |                  |
| ISODRIN                                |                | UG/KG          | ND        | 10           |                  |
| ISOPHORONE                             |                | UG/KG          | ND        | 10           |                  |
| ISOSAFROLE                             |                | UG/KG          | ND        | 10           |                  |
| KEPONE<br>METHAPYRILENE                |                | UG/KG          | ND        | 10           |                  |
| 3-METHYLCHOLANTHRE                     | NE             | UG/KG<br>UG/KG | ND<br>ND  | 10<br>10     |                  |
| METHYL METHANESULF                     |                | UG/KG          | ND        | 10           |                  |
| 1-METHYLNAPHTHALEN                     |                | UG/KG          | ND        | 10           |                  |
| 2-METHYLNAPHTHALEN                     |                | UG/KG          | ND        | 10           |                  |
| NAPHTHALENE                            | _              | UG/KG          | ND        | 10           |                  |
| 1,4-NAPHTHOQUINONE                     |                | UG/KG          | ND        | 10           |                  |
| 1-NAPHTHYLAMINE                        |                | ŬĠ/KĠ          | ND        | 10           |                  |
| 2-NAPHTHYLAMINE                        |                | UG / KG        | ND        | 10           |                  |
| 2-NITROANILINE                         |                | UG/KG          | ND        | 50           |                  |
| 3-NITROANILINE                         |                | UG/KG          | ND        | 50           |                  |
| 4-NITROANILINE                         |                | UG/KG          | ND        | 50           |                  |
| NITROBENZENE                           | _              | UG/KG          | ND        | 10           |                  |
| 5-NITRO-O-TOLUIDIN                     |                | UG/KG          | ND        | 10           |                  |
| 4-NITROQUINOLINE-1                     |                | UG/KG          | ND        | 10           |                  |
| N-NITROSODIETHYLAM                     |                | UG/KG          | ND        | 10           |                  |
| N-NITROSODIMETHYLA                     | 11 T M C       | UG/KG          | ND        | 10           |                  |

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[0) Page 6 Date 10-Apr-96

|                                                  |                | "QC Report"  |           |              | 2400 10 .pr 90  |
|--------------------------------------------------|----------------|--------------|-----------|--------------|-----------------|
| Title:                                           | Soil Blank     |              |           |              |                 |
| Batch:                                           | ALS021         |              |           |              |                 |
| Batch:<br>Analysis Method:<br>Extraction Method: | 8270 / SW-846, | 3rd Edition, | September | 1986 and Rev | . 1, July 1992. |
| Extraction Method:                               | 3550 / SW-846, | 3rd Edition, | September | 1986 and Rev | . 1, July 1992. |
|                                                  |                |              | ·····     |              |                 |
| <b>.</b> .                                       |                | ** - *       | <b>D</b>  | <b>D</b> .   | <b>*</b> * * *  |
| Parameters:                                      |                | Units:       | Results:  | Reporting    | Limits:         |
| N-NITROSODI-N-BUTY                               | LAMINE         | UG/KG        | ND        | 10           |                 |
| N-NITROSODIPHENYLA                               |                | UG/KG        | ND        | 10           |                 |
| N-NITROSOMETHYLETH                               |                | UG/KG        | ND        | 10           |                 |
| N-NITROSOMETHTEETH<br>N-NITROSOMORPHOLIN         |                | UG/KG        | ND        | 10           |                 |
| N-NITROSOPIPERIDIN                               |                | UG/KG        | ND        | 10           |                 |
| N-NITROSOPIPERIDIN<br>N-NITROSOPYRROLIDI         |                | UG/KG        |           | 10           |                 |
|                                                  |                |              | ND        |              |                 |
| PARATHION                                        |                | UG/KG        | ND        | 10           |                 |
| PENTACHLOROBENZENE                               |                | UG/KG        | ND        | 10           |                 |
| PENTACHLOROETHANE                                |                | UG/KG        | ND        | 10           |                 |
| PENTACHLORONITROBE                               | NZENE          | UG/KG        | ND        | 10           |                 |
| PHENACETIN                                       |                | UG/KG        | ND        | 10           |                 |
| PHENANTHRENE                                     |                | UG/KG        | ND        | 10           |                 |
| 2-PICOLINE                                       |                | UG/KG        | ND        | 10           |                 |
| P-PHENYLENEDIAMINE                               |                | UG/KG        | ND        | 10           |                 |
| PRONAMIDE                                        |                | UG/KG        | ND        | 10           |                 |
| PYRENE                                           |                | UG/KG        | ND        | 10           |                 |
| PYRIDINE                                         |                | UG/KG        | ND        | 10           |                 |
| SAFROLE                                          |                | UG/KG        | ND        | 10           |                 |
| SULFOTEPP                                        |                | UG/KG        | ND        | 10           |                 |
| 1,2,4,5-TETRACHLOR                               | OBENZENE       | UG/KG        | ND        | 10           |                 |
| THIONAZIN                                        |                | UG/KG        | ND        | 10           |                 |
| O-TOLUIDINE                                      |                | UG/KG        | ND        | 10           |                 |
| 1,2,4 TRICHLOROBEN                               | ZENE           | UG/KG        | ND        | 10           |                 |
| SYM-TRINITROBENZEN                               | Ė              | UG/KG        | ND        | 10           |                 |
| 0,0,0-TRIETHYL PHO                               | SPHOROTHIATE   | UG/KG        | ND        | 10           |                 |
| BENZIDINE                                        |                | UG/KG        | ND        | 10           |                 |
| BIS (2-CHLOROISOPRO                              | PYL) ETHER     | UG/KG        | ND        | 10           |                 |
| 2-(SEC BUTYL)4,6-D                               |                | ,            |           |              |                 |
| PHENOL (DINOSEB)                                 |                | UG/KG        | ND        | 10           |                 |
| N-NITROSO-DI-N-PRO                               | PYLAMINE       | UG/KG        | ND        | 10           |                 |
| 2-FLUOROBIPHENYL                                 |                | %REC/SURR    | 76        | 30-115       |                 |
| TERPHENYL-D14                                    |                | %REC/SURR    | 90        | 18-137       |                 |
| NITROBENZENE-D5                                  |                | %REC/SURR    | 66        | 23-120       |                 |
| 2 - FLUOROPHENOL                                 |                | %REC/SURR    | 71        | 25-121       |                 |
| PHENOL-D6                                        |                | *REC/SURR    | 68        |              |                 |
| 2,4,6-TRIBROMOPHEN                               | OL             | %REC/SURR    | 70        | 24-113       |                 |
| ANALYST                                          | 01             | INITIALS     | PL        | 19-122       |                 |
|                                                  |                | TNTITAD2     | ЧЦ        |              |                 |

Comments:

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#### "OC Report"

(0) Page 7 Date 10-Apr-96

|                    | QC REPOIL                                                          |
|--------------------|--------------------------------------------------------------------|
| Title:             | Water Reagent                                                      |
|                    |                                                                    |
| Batch:             | ALW023                                                             |
| Analysis Method:   | 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.  |
| Extraction Mothod. | 2520 / CW 046 and Edition Contempor 1006 and Day 1, July 1000      |
| EXCLUCION MECHOD:  | 3520 / SW-846, 3rd Edition, September 1986 and Rev. 1, July, 1992. |

|                                                                                         | RS Date Analyzed:<br>RSD Date Analyzed:                                                                     | 25-MAR-96<br>25-MAR-96                                                               |                                                                               |                                                                                   |                                                                        | ate Extra<br>Date Extr                                                             |                                                                               |                                                                  | -MAR - 9<br>-MAR - 9                                                                |                                                                                                                         |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| N-NITRO-D<br>1,2,4 TRI<br>4-CHLORO-<br>ACENAPHTH<br>4-NITROPH                           | HENOL<br>OROBENZENE<br>I - N - PROPYLAMINE<br>CHLOROBENZENE<br>3 - METHYLPHENOL<br>ENE<br>ENOL<br>ROTOLUENE | Spike<br>Added<br>200<br>100<br>100<br>200<br>100<br>200<br>100<br>200<br>100<br>200 | Sample<br>Conc<br><10<br><10<br><10<br><10<br><10<br><10<br><50<br><50<br><10 | RS<br>Conc<br>124<br>134<br>68<br>58<br>68<br>136<br>70<br>140<br>68<br>138<br>64 | RS<br>8Rec<br>62<br>68<br>58<br>68<br>68<br>70<br>68<br>69<br>69<br>64 | RSD<br>Conc<br>130<br>144<br>74<br>74<br>76<br>146<br>88<br>160<br>84<br>146<br>74 | RSD<br>%Rec<br>65<br>72<br>74<br>74<br>76<br>73<br>88<br>80<br>84<br>73<br>74 | RPD<br>5<br>7<br>8<br>24<br>11<br>7<br>23<br>13<br>21<br>6<br>14 | RPD<br>Lmts<br>32<br>27<br>29<br>30<br>28<br>28<br>28<br>26<br>50<br>29<br>24<br>25 | Rec<br>Lmts<br>5-112<br>40-120<br>32-119<br>26-128<br>44-142<br>30-128<br>47-145<br>1-132<br>39-138<br>15-157<br>52-115 |
| Surrogate<br>NITROBENZ<br>2-FLUOROB<br>TERPHENYL<br>PHENOL-D6<br>2-FLUOROP<br>2-4,6-TRI | ENE-D5<br>IPHENYL<br>-D14                                                                                   |                                                                                      |                                                                               |                                                                                   | 71<br>73<br>79<br>72<br>71<br>73                                       |                                                                                    | 83<br>88<br>93<br>77<br>77<br>82                                              |                                                                  |                                                                                     | 35-114<br>43-116<br>33-124<br>10~100<br>21-100<br>10-123                                                                |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

RS Date Extracted: 19-MAR-96 RSD Date Extracted: 19-MAR-96

### "OC Report"

[0) Page 8 Date 10-Apr-96

| Title:           | Soil Reagent                                                                                                                           |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Batch:           | ALS021                                                                                                                                 |
| Analysis Method: | 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.<br>3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. |

RS Date Analyzed: 03-APR-96 RSD Date Analyzed: 03-APR-96

| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZENE<br>N-NITRO-DI-N-PROPYLAMINE<br>1,2,4 TRICHLOROBENZENE<br>4-CHLORO-3-METHYLPHENOL<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | Spike<br>Added<br>3333<br>1667<br>1667<br>1667<br>3333<br>1667<br>3333<br>1667<br>3333<br>1667 | Sample<br>Conc<br><330<br><330<br><330<br><330<br><330<br><330<br><1700<br><330<br><1700<br><330 | RS<br>Conc<br>2200<br>1200<br>1200<br>1200<br>2400<br>1333<br>2300<br>1167<br>2700<br>1067 | RS<br>%Rec<br>66<br>72<br>66<br>72<br>80<br>69<br>70<br>89<br>70<br>81 | RSD<br>2500<br>2533<br>1400<br>1200<br>1367<br>2633<br>1367<br>2400<br>1233<br>2800<br>1133 | RSD<br>%Rec<br>75<br>84<br>72<br>82<br>79<br>82<br>79<br>82<br>74<br>82<br>74<br>82<br>74<br>82 | RPD<br>13<br>14<br>15<br>9<br>13<br>9<br>2<br>4<br>6<br>4<br>6 | RPD<br>Lmts<br>27<br>32<br>25<br>24<br>26<br>19<br>50<br>21<br>20<br>23 | Rec<br>Lmts<br>5-112<br>38-123<br>50-111<br>39-121<br>49-115<br>37-128<br>53-115<br>32-126<br>56-118<br>31-146<br>52-115 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--|
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>4,6-TRIBROMOPHENOL                                                                                                              |                                                                                                |                                                                                                  |                                                                                            | 75<br>84<br>92<br>76<br>77<br>79                                       | 1100                                                                                        | 84<br>89<br>94<br>86<br>86<br>81                                                                | 2                                                              | 2.5                                                                     | 23-120<br>30-115<br>18-137<br>24-113<br>25-121<br>19-122                                                                 |  |

Comments:

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

## "QC Report"

[0) Page 9 Date 10-Apr-96

| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method:                                                                                                                                                              | Water Matr:<br>ALW023<br>8270 / SW-8<br>3520 / SW-8 | 346, 3rd 1                                                                           | Edition, S<br>Edition, S                                                             | September                                                                               | 1986<br>1986                                                           | and Rev.<br>and Rev. | 1, Ju<br>1, Ju                                                                | ly 1<br>ly,                                       | 992.<br>1992.                                                                 |                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Dry Weight %: N/A<br>Sample Spiked: 6033                                                                                                                                                                                |                                                     |                                                                                      | Analyzed:<br>e Analyzed                                                              |                                                                                         |                                                                        |                      | e Extra<br>ite Extr                                                           |                                                   |                                                                               | 8 - MAR - 96<br>8 - MAR - 96                                                                                            |
| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZENI<br>N-NITRO-DI-N-PROPY<br>1,2,4 TRICHLOROBENS<br>4-CHLORO-3-METHYLP<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | LAMINE<br>ZENE<br>HENOL                             | Spike<br>Added<br>400<br>200<br>200<br>200<br>400<br>200<br>400<br>200<br>400<br>200 | Sample<br>Conc<br><10<br><10<br><10<br><10<br><10<br><10<br><50<br><10<br><50<br><10 | MS<br>Conc<br>212<br>244<br>152<br>152<br>152<br>256<br>172<br>292<br>164<br>160<br>144 | MS<br>%Rec<br>53<br>61<br>76<br>76<br>64<br>86<br>73<br>82<br>40<br>72 | 228                  | MSD<br>%Rec<br>57<br>65<br>80<br>78<br>80<br>65<br>90<br>78<br>88<br>51<br>76 | RPD<br>7<br>6<br>5<br>2<br>5<br>7<br>7<br>24<br>5 | RPD<br>Lmts<br>38<br>25<br>27<br>30<br>30<br>23<br>21<br>36<br>22<br>36<br>21 | Rec<br>Lmts<br>5-112<br>38-120<br>39-112<br>32-125<br>44-118<br>42-131<br>47-131<br>1-116<br>39-138<br>14-164<br>52-115 |
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>24,6-TRIBROMOPHENG                                                                                                | ЭГ                                                  |                                                                                      |                                                                                      |                                                                                         | 90<br>93<br>98<br>65<br>63<br>67                                       |                      | 87<br>91<br>99<br>62<br>58<br>62                                              |                                                   |                                                                               | 35 - 114<br>43 - 116<br>33 - 124<br>10 - 100<br>21 - 100<br>10 - 123                                                    |

Comments:

Notes:

s: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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|                                                                                                                                                                                                                       |                                                   |                                                                                                    | "QC Repo                                                                                                 | ort"                                                                   |                                                                      |                                                                              |                                                                         |                                                                     | age 10<br>10-Ap:                                                              |                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method:                                                                                                                                                            | Soil Matri:<br>ALS021<br>8270 / SW-<br>3550 / SW- | 846, 3rd                                                                                           | Edition, S<br>Edition, S                                                                                 | September<br>September                                                 | 1986<br>1986                                                         | and Rev<br>and Rev                                                           | 7. 1, Ju<br>7. 1, Ju                                                    | ly 1<br>ly 1                                                        | 992.<br>992.                                                                  |                                                                                                                          |
| Dry Weight %: 74<br>Sample Spiked: 603                                                                                                                                                                                | 254-11                                            |                                                                                                    | Analyzed<br>e Analyzed                                                                                   |                                                                        |                                                                      |                                                                              | ite Extra<br>Date Extr                                                  |                                                                     | -                                                                             | 9 - MAR - 96<br>9 - MAR - 96                                                                                             |
| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZEN<br>N-NITRO-DI-N-PROPY<br>1,2,4 TRICHLOROBEN<br>4-CHLORO-3-METHYLP<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | LAMINE<br>ZENE<br>HENOL                           | Spike<br>Added<br>44<br>22<br>22<br>22<br>44<br>22<br>44<br>22<br>44<br>22<br>44<br>22<br>44<br>22 | Sample<br>Conc<br><330<br><330<br><330<br><330<br><330<br><330<br><330<br><1700<br><330<br><1700<br><330 | MS<br>Conc<br>29<br>31<br>16<br>12<br>26<br>16<br>20<br>15<br>27<br>15 | MS<br>65<br>69<br>72<br>54<br>70<br>58<br>72<br>45<br>66<br>60<br>70 | MSD<br>Conc<br>25<br>28<br>16<br>9<br>15<br>20<br>14<br>14<br>13<br>23<br>13 | MSD<br>%Rec<br>56<br>62<br>70<br>42<br>66<br>44<br>32<br>56<br>52<br>58 | RPD<br>15<br>11<br>3<br>25<br>6<br>27<br>12<br>34<br>16<br>14<br>19 | RPD<br>Lmts<br>22<br>27<br>27<br>27<br>21<br>28<br>20<br>42<br>23<br>33<br>31 | Rec<br>Lmts<br>40-103<br>39-104<br>43-109<br>29-117<br>49-126<br>32-117<br>47-126<br>1-124<br>43-110<br>14-144<br>52-115 |
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>4,6-TRIBROMOPHEN                                                                                                | OL                                                |                                                                                                    |                                                                                                          |                                                                        | 62<br>64<br>70<br>57<br>60<br>53                                     |                                                                              | 70<br>74<br>79<br>67<br>71<br>64                                        |                                                                     |                                                                               | 23-120<br>30-115<br>18-137<br>24-113<br>25-121<br>19-122                                                                 |

Comments:

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0] Page 11 Date 10-Apr-96

#### Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUTUG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. JESTIMA DEFINITION DEFINITY CONTROL LIMITS
 J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD. ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS. DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS. CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLMO1.8, AUGUST 1991.

| LP =  | LEVERNE PETERSON   | RW = | RITA WINGO      |
|-------|--------------------|------|-----------------|
| DWB = | DAVID BOWERS       | LD = | LARRY DILMORE   |
| DB =  | DENNIS BESON       | DC = | DAVID CELESTIAL |
| LL =  | LANCE LARSON       | RB = | RAFAEL BARRAZA  |
| JA =  | JENNIFER ALEXANDER | PL = | PAUL LESCHENSKY |

Quality Control Report

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Analysis: BN EXTRACTABLES (8270)

Accession: 604535 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: VAUGHN LANDFILL Project Location: CSXT9415585 Department: ORGANIC/MS

[0) Page 1 Date 10-May-96

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|                                          |                 | "QC Report     | 14            |             | Date IU-May-96                        |
|------------------------------------------|-----------------|----------------|---------------|-------------|---------------------------------------|
| Title:                                   | Soil Blank      | 20             |               |             |                                       |
| Batch:                                   | ALS028          |                |               |             |                                       |
| Analysis Method:                         | 8270 / SW-846,  | 3rd Edition    | , September 1 | 1986 and Re | ev. 1, July 1992.                     |
| Extraction Method:                       | 3550 / SW-846,  | 3rd Edition    | , September 1 | 1986 and Re | ev. 1, July 1992.                     |
|                                          |                 |                |               |             | · · · · · · · · · · · · · · · · · · · |
| Blank Id: A Dat                          | e Analyzed: 03- | MAY-96 Da      | te Extracted: | 01-MAY-96   | -                                     |
|                                          | 1               |                |               |             |                                       |
| Parameters:                              |                 | Units:         | Results:      | Reportir    | ng Limits:                            |
|                                          |                 |                |               | _           |                                       |
| P-CHLORO-M-CRESOL<br>2-CHLOROPHENOL      |                 | UG/KG          | ND            | 10          |                                       |
| 0-CRESOL                                 |                 | UG/KG<br>UG/KG | ND<br>ND      | 10<br>10    |                                       |
| M, P CRESOL                              |                 | UG/KG          | ND            | 10          |                                       |
| 2,4-DICHLOROPHENOL                       |                 | UG/KG          | ND            | 10          |                                       |
| 2,6-DICHLOROPHENOL                       |                 | UG/KG          | ND            | 10          |                                       |
| 2,4-DIMETHYLPHENOL                       |                 | UG/KG          | ND            | 10          |                                       |
| 4,6-DINITRO-O-CRES                       | OL              | UG/KG          | ND            | 50          |                                       |
| 2,4-DINITROPHENOL                        |                 | UG/KG          | ND            | 10          |                                       |
| 2-NITROPHENOL                            |                 | UG/KG          | ND            | 10          |                                       |
| 4-NITROPHENOL<br>PENTACHLOROPHENOL       |                 | UG/KG          | ND            | 50          |                                       |
| PHENOL                                   |                 | UG/KG<br>UG/KG | ND            | 50          |                                       |
| 2,3,4,6-TETRACHLOR                       | OPHENOL         | UG/KG          | ND<br>ND      | 10<br>10    |                                       |
| 2,4,5-TRICHLOROPHE                       |                 | UG/KG          | ND            | 50          |                                       |
| 2,4,6-TRICHLOROPHE                       |                 | UG/KG          | ND            | 10          |                                       |
| ACENAPHTHENE                             |                 | UG/KG          | ND            | 10 .        |                                       |
| ACENAPHTHYLENE                           |                 | UG/KG          | ND            | 10          |                                       |
| ACETOPHENONE                             | DATE:           | UG/KG          | ND            | 10          |                                       |
| 2-ACETYLAMINOFLUOR<br>4-AMINOBIPHENYL    | ENE             | UG/KG          | ND            | 10          |                                       |
| ANILINE                                  |                 | UG/KG<br>UG/KG | ND<br>ND      | 10<br>10    |                                       |
| ANTHRACENE                               |                 | UG/KG          | ND            | 10          |                                       |
| ARAMITE                                  |                 | UG/KG          | ND            | 10          |                                       |
| BENZO (A) ANTHRACE                       | NE              | UG/KG          | ND            | 10          |                                       |
| BENZO (A) PYRENE                         |                 | UG/KG          | ND            | 10          |                                       |
| BENZO (B) FLUORANTI                      |                 | UG/KG          | ND            | 10          |                                       |
| BENZO (G,H,I) PERY<br>BENZO (K) FLUORANT |                 | UG/KG          | ND            | 10          |                                       |
| BENZYL ALCOHOL                           | LENE            | UG/KG<br>UG/KG | ND<br>ND      | 10          |                                       |
| BIS (2-CHLORO-1-MET                      | HYLETHYL) ETHER | UG/KG          | ND            | 10<br>10    |                                       |
| BIS (2-CHLOROETHOXY                      |                 | UG/KG          | ND            | 10          |                                       |
| BIS (2-CHLOROETHYL)                      |                 | UG/KG          | ND            | 10          |                                       |
| BIS (2-ETHYLHEXYL) P                     |                 | UG/KG          | ND            | 10          |                                       |
| 4-BROMOPHENYL PHEN                       |                 | UG/KG          | ND            | 10          |                                       |
| BUTYLBENZYL PHTHAL                       | ATE             | UG/KG          | ND            | 10          |                                       |
| P-CHLOROANILINE                          |                 | UG/KG          | ND            | 10          |                                       |
| CHLOROBENZILATE<br>2-CHLORONAPHTHALEN    | F               | UG/KG<br>UG/KG | ND            | 10          |                                       |
| 4 - CHLOROPHENYL PHE                     |                 | UG/KG<br>UG/KG | ND<br>ND      | 10<br>10    |                                       |
| CHRYSENE                                 |                 | UG/KG          | ND            | 10          |                                       |
| DIALLATE                                 |                 | UG/KG          | ND            | 10          |                                       |
| DIBENZO (A, H) ANTH                      | RACENE          | UG/KG          | ND            | 10          |                                       |
| DIBENZOFURAN                             | <b>D</b>        | UG/KG          | ND            | 10          |                                       |
| 1,2-DICHLOROBENZEN                       |                 | UG/KG          | ND            | 10          |                                       |
| 1,3-DICHLOROBENZEN                       | Li              | UG/KG          | ND            | 10          |                                       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Soil Blank<br>ALS028                                                                   | "QC Report"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                 |                                                                     | Dat            | e 10-N       | lay-96         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------|--------------|----------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8270 / SW-846.                                                                         | 3rd Edition,<br>3rd Edition,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | September<br>September                                                          | 1986 and Rev<br>1986 and Rev                                        | 7. 1,<br>7. 1, | July<br>July | 1992.<br>1992. |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                        | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Results:                                                                        | Reporting                                                           | ; Lim          | its:         |                |
| Parameters:<br>1,4-DICHLOROBENZENE<br>3,3'-DICHLOROBENZID:<br>DIETHYLPHTHALATE<br>DIMETHOATE<br>P-DIMETHYLAMINOAZOBI<br>7,12-DIMETHYLBENZID:<br>A,A-DIMETHYLPENETHY<br>DIMETHYLPHTHALATE<br>DI-N-BUTYLPHTHALATE<br>M-DINITROBENZENE<br>2,4-DINITROTOLUENE<br>2,6-DINITROTOLUENE<br>2,6-DINITROTOLUENE<br>DI-N-OCTYLPHTHALATE<br>DIPHENYLAMINE<br>ETHYL METHANESULFON:<br>FAMPHUR<br>FLUORANTHENE<br>FLUORENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBENZENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROBUTADIENE<br>HEXACHLOROPENE<br>HEXACHLOROPENE<br>HEXACHLOROPENE<br>HEXACHLOROPENE<br>HEXACHLOROPENE<br>HEXACHLOROPENE<br>INDENO (1,2,3-CD) PY<br>ISODRIN<br>ISOPHORONE<br>ISOSAFROLE<br>KEPONE<br>METHAPYRILENE<br>3-METHYLCHOLANTHRENI<br>METHYL METHANESULFON<br>1-METHYLNAPHTHALENE<br>1,4-NAPHTHOQUINONE<br>1-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLAMINE<br>2-NAPHTHYLMINE<br>3-NITROANILINE | INE<br>ENZENE<br>) ANTHRACENE<br>INE<br>YLAMINE<br>ATE<br>ADIENE<br>YRENE<br>E<br>NATE | Units:<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | 10<br>50<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>1 | ; Lim          | its:         |                |
| NITROBENZENE<br>5-NITRO-O-TOLUIDINE<br>4-NITROQUINOLINE-1-(<br>N-NITROSODIETHYLAMIN<br>N-NITROSODIMETHYLAMI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | NE                                                                                     | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ND<br>ND<br>ND<br>ND<br>ND<br>ND                                                | 50<br>10<br>10<br>10<br>10<br>10                                    |                |              |                |

[0) Page 2

| Title: Soil Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | "QC Report"                                                                                                                                                                                                                                                                                                                                        |                                                                                 | Date 10-May-96                                                        |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------|--|
| Batch: ALS028<br>Analysis Method: 8270 / SW-846<br>Extraction Method: 3550 / SW-846                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | , 3rd Edition,<br>, 3rd Edition,                                                                                                                                                                                                                                                                                                                   | September<br>September                                                          | 1986 and Rev. 1, July 1992.<br>1986 and Rev. 1, July 1992.            |  |
| Parameters:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Units:                                                                                                                                                                                                                                                                                                                                             | Results:                                                                        | Reporting Limits:                                                     |  |
| N-NITROSODI-N-BUTYLAMINE<br>N-NITROSODIPHENYLAMINE<br>N-NITROSOMETHYLETHYLAMINE<br>N-NITROSOPIPERIDINE<br>N-NITROSOPIPERIDINE<br>N-NITROSOPYRROLIDINE<br>PARATHION<br>PENTACHLOROBENZENE<br>PENTACHLOROBENZENE<br>PENTACHLOROBITROBENZENE<br>PHENACETIN<br>PHENANTHRENE<br>2-PICOLINE<br>P-PHENYLENEDIAMINE<br>PRONAMIDE<br>PYRENE<br>PYRENE<br>SAFROLE<br>SULFOTEPP<br>1,2,4,5-TETRACHLOROBENZENE<br>THIONAZIN<br>O-TOLUIDINE<br>1,2,4 TRICHLOROBENZENE<br>SYM-TRINITROBENZENE<br>O,O,O-TRIETHYL PHOSPHOROTHIATE<br>BENZIDINE<br>BIS (2-CHLOROISOPROPYL) ETHER<br>2-(SEC BUTYL)4,6-DINITRO-<br>PHENOL (DINOSEB)<br>N-NITROSO-DI-N-PROPYLAMINE<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>NITROBENZENE-D5<br>2-FLUOROPHENOL<br>PHENOL-D6 | UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG<br>UG/KG | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>N | $ \begin{array}{c} 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\$ |  |
| 2,4,6-TRIBROMOPHENOL<br>ANALYST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <pre>%REC/SURR INITIALS</pre>                                                                                                                                                                                                                                                                                                                      | 71<br>RW                                                                        | 19-122                                                                |  |

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Comments:

(0) Page 3
Date 10-May-96

RS Date Extracted: 01-May-96

RSD Date Extracted: 01-May-96

#### [0) Page 4 Date 10-May-96

|                                        | "QC Report"                                                                                                    | Ducc IV                        |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------|
| Title:<br>Batch:                       | Soil Reagent<br>ALS028                                                                                         |                                |
| Analysis Method:<br>Extraction Method: | 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1<br>3550 / SW-846, 3rd Edition, September 1986 and Rev. 1 | ., July 1992.<br>., July 1992. |

RS Date Analyzed: 07-May-96 RSD Date Analyzed: 07-May-96

| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZENE<br>N-NITRO-DI-N-PROPYLAMINE<br>1,2,4 TRICHLOROBENZENE<br>4-CHLORO-3-METHYLPHENOL<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | Spike<br>Added<br>3333<br>1667<br>1667<br>1667<br>3333<br>1667<br>3333<br>1667<br>3333<br>1667 | Sample<br>Conc<br><330<br><330<br><330<br><330<br><330<br><330<br><1700<br><330<br><1700<br><330<br><1700<br><330 | RS<br>Conc<br>2567<br>2600<br>1333<br>1267<br>1300<br>2500<br>1367<br>2933<br>1467<br>2300<br>1200 | RS<br>%Rec<br>77<br>78<br>80<br>76<br>78<br>75<br>82<br>88<br>88<br>69<br>72 | RSD<br>Conc<br>2200<br>2167<br>1100<br>1133<br>1133<br>2367<br>1233<br>3233<br>1500<br>2367<br>1267 | RSD<br>%Rec<br>665<br>68<br>68<br>71<br>74<br>97<br>90<br>71<br>76 | RPD<br>15<br>18<br>19<br>11<br>14<br>5<br>10<br>10<br>2<br>3<br>5 | RPD<br>Lmts<br>27<br>25<br>25<br>24<br>26<br>19<br>50<br>21<br>20<br>23 | Rec<br>Lmts<br>5-112<br>38-123<br>50-111<br>39-121<br>49-115<br>37-128<br>53-115<br>32-126<br>56-118<br>31-146<br>52-115 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>2 4,6-TRIBROMOPHENOL                                                                                                            |                                                                                                |                                                                                                                   |                                                                                                    | 91<br>100<br>113<br>76<br>77<br>79                                           |                                                                                                     | 79<br>87<br>108<br>60<br>59<br>74                                  |                                                                   |                                                                         | 23-120<br>30-115<br>18-137<br>24-113<br>25-121<br>19-122                                                                 |

Comments: DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

[0) Page 5 Date 10-May-96

## Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD. ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.

DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLMO1.8, AUGUST 1991.

| LP =  | LEVERNE PETERSON   | RW = RITA WINGO      |
|-------|--------------------|----------------------|
| DWB = | DAVID BOWERS       | LD = LARRY DILMORE   |
| DB =  | DENNIS BESON       | DC = DAVID CELESTIAL |
| LL =  | LANCE LARSEN       | RB = RAFAEL BARRAZA  |
| JA =  | JENNIFER ALEXANDER | PL = PAUL LESCHENSKY |

Quality Control Report

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Analysis: SW 846 8260 TABLE SIX

Accession: 604535 Client: CSX TRANSPORTATION Project Number: 4365B Project Name: VAUGHN LANDFILL Project Location: CSXT9415585 Department: ORGANIC/MS

[0) Page 1 Date 02-May-96

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"QC Report"

Title: Low Soil Blank Batch: MAS052 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

Blank Id: A Date Analyzed: 30-APR-96 Date Extracted: N/A

| Parameters:                          | Units:         | Results: | Reporting Limits:                                                                           |
|--------------------------------------|----------------|----------|---------------------------------------------------------------------------------------------|
| ACROLEIN                             | UG/KG          | ND       | 100                                                                                         |
| ACETONE                              | UG/KG          | ND       | 10                                                                                          |
| ACETONITRILE                         | UG/KG          | ND       | 100                                                                                         |
| ACRYLONITRILE                        | UG/KG          | ND       | 100                                                                                         |
| ALLYL CHLORIDE                       | UG/KG          | ND       | 100                                                                                         |
| BENZENE                              | UG/KG          | ND       |                                                                                             |
| BROMOCHLOROMETHANE                   | UG/KG          | ND       | 5<br>5                                                                                      |
|                                      | UG/KG          |          |                                                                                             |
| BROMOBENZENE<br>BROMODICHLOROMETHANE | UG/KG          | ND<br>ND | 5<br>r                                                                                      |
|                                      | UG/KG<br>UG/KG |          | 5                                                                                           |
| BROMOFORM                            |                | ND       | 5                                                                                           |
| BROMOMETHANE                         | UG/KG          | ND       | 5<br>5<br>5<br>5<br>5<br>5                                                                  |
| 2 - BUTANONE                         | UG/KG          | ND       | 5                                                                                           |
| CARBON DISULFIDE                     | UG/KG          | ND       | 5                                                                                           |
| CHLOROPRENE                          | UG/KG          | ND       | 5                                                                                           |
| CARBON TETRACHLORIDE                 | UG/KG          | ND       | 5                                                                                           |
| CHLOROBENZENE                        | UG/KG          | ND       | 5                                                                                           |
| CHLOROETHANE                         | UG/KG          | ND       | 5                                                                                           |
| CHLOROFORM                           | UG/KG          | ND       | 5                                                                                           |
| CHLOROMETHANE                        | UG/KG          | ND       | 5                                                                                           |
| 2-CHLOROTOLUENE                      | UG/KG          | ND       | 5                                                                                           |
| 4 - CHLOROTOLUENE                    | UG/KG          | ND       | 5                                                                                           |
| CIS 1,2 DICHLOROETHYLENE             | UG/KG          | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| CHLORODIBROMOMETHANE                 | UG/KG          | ND       | 5                                                                                           |
| 1,2 DIBROMOETHANE                    | UG/KG          | ND       | 5                                                                                           |
| 1, 2-DIBROMO-3-CHLOROPROPANE         | UG/KG          | ND       | 5                                                                                           |
| 1,4-DICHLORO-2-BUTENE                | UG/KG          | ND       | 5                                                                                           |
| DIBROMOMETHANE                       | UG/KG          | ND       | 5                                                                                           |
| 1,4-DICHLOROBENZENE                  | UG/KG          | ND       | 5                                                                                           |
| 1,3-DICHLOROBENZENE                  | UG/KG          | ND       | 5                                                                                           |
| 1,2-DICHLOROBENŻENE                  | UG/KG          | ND       | 5                                                                                           |
| DICHLORODIFLUOROMETHANE              | UG/KG          | ND       | 5                                                                                           |
| 1,1-DICHLOROETHANE                   | UG/KG          | ND       | 5                                                                                           |
| 1,2-DICHLOROETHANE                   | UG/KG          | ND       | 5                                                                                           |
| 1,1-DICHLOROETHENE                   | UG/KG          | ND       | 5                                                                                           |
| 1,3 DICHLOROPROPANE                  | UG/KG          | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 2,2-DICHLOROPROPANE                  | UG/KG          | ND       | 5                                                                                           |
| 1,2-DICHLOROPROPANE                  | UG/KG          | ND       | 5                                                                                           |
| CIS-1,3-DICHLOROPROPENE              | UG/KG          | ND       | 5                                                                                           |
| TRANS-1, 3-DICHLOROPROPENE           | UG/KG          | ND       | Ϋ́ς                                                                                         |
| 1,1 DICHLOROPROPENE                  | UG/KG          | ND       | 5                                                                                           |
| ETHYL BENZENE                        | UG/KG          | ND       | 5                                                                                           |
| METHYL METHACRYLATE                  | UG/KG          | ND       | 5                                                                                           |
| METHACRYLONITRILE                    | UG/KG          | ND       | 5                                                                                           |
| 4 - METHYL - 2 - PENTANONE           | UG/KG          | ND       | 5                                                                                           |
| HEXACHLOROBUTADIENE                  | UG/KG          | ND       | 5<br>5<br>5<br>5<br>5                                                                       |
| 2 - HEXANONE                         | UG/KG          | ND       | 5                                                                                           |
|                                      |                |          |                                                                                             |

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(0) Page 2 Date 02-May-96

"OC Report"

|                    | QC REPORT                                                         |
|--------------------|-------------------------------------------------------------------|
| Title:             | Low Soil Blank                                                    |
| Batch:             | MAS052                                                            |
|                    |                                                                   |
| Analysis Method:   | 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. |
| Extraction Method: | N/A                                                               |

| Parameters:                                                              | Units:    | Results: | Reporting Limits:                                                                           |
|--------------------------------------------------------------------------|-----------|----------|---------------------------------------------------------------------------------------------|
| ISOPROPYL BENZENE                                                        | UG/KG     | ND       | 5                                                                                           |
| ISOBUTYL ALCOHOL                                                         | UG/KG     | ND       | 10                                                                                          |
| IODOMETHANE                                                              | UG/KG     | ND       | 5                                                                                           |
| P-ISOPROPYLTOLUENE                                                       | UG/KG     | ND       | 5                                                                                           |
| METHYLENE CHLORIDE                                                       | UG/KG     | ND       | 5                                                                                           |
| NAPHTHALENE                                                              | UG/KG     | ND       | 5                                                                                           |
| N-BUTYL BENZENE                                                          | UG/KG     | ND       | 5                                                                                           |
| N-PROPYL BENZENE                                                         | UG/KG     | ND       | 5                                                                                           |
| PROPIONITRILE                                                            | UG/KG     | ND       | 5                                                                                           |
| SEC-BUTYL BENZENE                                                        | UG/KG     | ND       | 5                                                                                           |
| STYRENE                                                                  | UG/KG     | ND       | 5                                                                                           |
| TERT-BUTYL BENZENE                                                       | UG/KG     | ND       | 5                                                                                           |
| 1,1,1,2-TETRACHLOROETHANE                                                | UG/KG     | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 1, 1, 2, 2-TETRACHLOROETHANE                                             | UG/KG     | ND       | 5                                                                                           |
| TETRACHLOROETHENE                                                        | UG/KG     | ND       | 5                                                                                           |
| TOLUENE                                                                  | UG/KG     | ND       | 5                                                                                           |
| TOLUENE DIISOCYANATE                                                     | UG/KG     | ND       | 10                                                                                          |
| TOLUENE DIAMINE                                                          | UG/KG     | ND       | 10                                                                                          |
| TRANS 1,2 DICHLOROETHYLENE                                               | UG/KG     | ND       | 5                                                                                           |
| 1,1,1-TRICHLOROETHANE                                                    | UG/KG     | ND       | 5                                                                                           |
| 1,1,1-TRICHLOROETHANE<br>1,1,2-TRICHLOROETHANE<br>1,2,3 TRICHLOROBENZENE | UG/KG     | ND       | 5                                                                                           |
|                                                                          | UG/KG     | ND       | 5                                                                                           |
| 1,2,4 TRICHLOROBENZENE                                                   | UG/KG     | ND       | 5                                                                                           |
| TRICHLOROETHENE                                                          | UG/KG     | ND       | 5                                                                                           |
| TRICHLOROFLUOROMETHANE                                                   | UG/KG     | ND       | 5                                                                                           |
| 1,2,3 TRICHLOROPROPANE                                                   | UG/KG     | ND       | 5                                                                                           |
| 1,2,4-TRIMETHYLBENZENE                                                   | UG/KG     | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 1,3,5-TRIMETHYLBENZENE                                                   | UG/KG     | ND       | 5                                                                                           |
| VINYL ACETATE                                                            | UG/KG     | ND       | 5                                                                                           |
| VINYL CHLORIDE                                                           | UG/KG     | ND       | 5                                                                                           |
| M, P-XYLENE                                                              | UG/KG     | ND       | 5                                                                                           |
| O-XYLENE                                                                 | UG/KG     | ND       | 5                                                                                           |
| DIBROMOFLUOROMETHANE                                                     | %REC/SURR | 99       | 80-120                                                                                      |
| TOLUENE-D8                                                               | %REC/SURR | 104      | 81-117                                                                                      |
| BROMOFLUOROBENZENE                                                       | %REC/SURR | 99       | 74-121                                                                                      |
| ANALYST                                                                  | INITIALS  | LL       |                                                                                             |
|                                                                          |           |          |                                                                                             |

Comments:

"QC Report"

[0) Page 3 Date 02-May-96

RS Date Extracted: N/A RSD Date Extracted: N/A

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Title: Low Soil Reagent Batch: MAS052 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

> RS Date Analyzed: 30-APR-96 RSD Date Analyzed: 30-APR-96

| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>53<br>48<br>50<br>50<br>50 | RS<br>%Rec<br>96<br>100<br>100<br>100 | RSD<br>Conc<br>55<br>49<br>52<br>50<br>50 | RSD<br>%Rec<br>110<br>98<br>104<br>100<br>100 | RPD<br>4<br>2<br>4<br>0<br>0 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|------------------------------------------|---------------------------------------|-------------------------------------------|-----------------------------------------------|------------------------------|-------------------------------------------------|--------------------------------------------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                              |                                          | 107<br>105<br>106                     |                                           | 105<br>102<br>104                             |                              |                                                 | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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|                                                                                             |       |                                                    | "QC Repo                                           | ort"                                     |                                            |                                           |                     |       | age 4<br>02-May                           | γ-96                                                         |
|---------------------------------------------------------------------------------------------|-------|----------------------------------------------------|----------------------------------------------------|------------------------------------------|--------------------------------------------|-------------------------------------------|---------------------|-------|-------------------------------------------|--------------------------------------------------------------|
| Title:<br>Batch:<br>Analysis Method:<br>Extraction Method:                                  |       |                                                    | Edition, S                                         | September                                | : 1986 a                                   | and Rev.                                  | 1, Jul              | ly 19 | 992.                                      |                                                              |
| Dry Weight %: N/A<br>Sample Spiked: 604                                                     | 500-1 |                                                    | Analyzed<br>e Analyzed                             |                                          |                                            |                                           | e Extra<br>ite Extr |       |                                           | /A<br>/A                                                     |
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE |       | Spike<br>Added<br>50<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | MS<br>Conc<br>50<br>47<br>50<br>47<br>48 | MS<br>%Rec<br>100<br>94<br>100<br>94<br>96 | MSD<br>Conc<br>53<br>48<br>52<br>49<br>50 | 106                 |       | RPD<br>Lmts<br>42<br>20<br>20<br>44<br>20 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |

| CHLOROBENZENE                                                           | 50 | < 2 | 48 | 96                | 50 | 100               | 4 | 20 | 37-160                     |
|-------------------------------------------------------------------------|----|-----|----|-------------------|----|-------------------|---|----|----------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE |    |     |    | 101<br>104<br>102 |    | 103<br>104<br>103 |   |    | 80-120<br>81-117<br>74-121 |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 5 Date 02-May-96

#### Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLED = DILUTED OUT UG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS. PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT.  $\star$  = VALUES OUTSIDE OF QUALITY CONTROL LIMITS J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.

DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLM01.8, AUGUST 1991.

| LP = LEVERNE PETERSON   | RW = RITA WINGO      |
|-------------------------|----------------------|
| DWB = DAVID BOWERS      | LD = LARRY DILMORE   |
| DB = DENNIS BESON       | DC = DAVID CELESTIAL |
| LL = LANCE LARSEN       | RB = RAFAEL BARRAZA  |
| JA = JENNIFER ALEXANDER | PL = PAUL LESCHENSKY |

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Quality Control Report

Analysis: RCRA METALS

Accession:603312Client:CSX TRANSPORTATIONProject Number:4365BProject Name:GREENVILLE, SCProject Location:GREENVILLE, SCDepartment:METALS

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[0) Page 1 Date 22-Mar-96

|                |           | "Motole C | unlity Cont | rol Report" |           | Date 22-Mar-9 |
|----------------|-----------|-----------|-------------|-------------|-----------|---------------|
| Parameter:     | SILVER    | ARSENIC   | BARIUM      | CADMIUM     | CHROMIUM  | MERCURY       |
| Batch Id:      | A6S032    | R65032    | B6S032      | C6S032      | H6S032    | M4S019        |
| Blank Result:  | <1        | <5        | <1          | <0.5        | <1        | <0.1          |
| Anal. Method:  | 6010      | 6010      | 6010        | 6010        | 6010      | 7471          |
| Prep. Method:  | 3050      | 3050      | 3050        | 3050        | 3050      | 7471          |
| Analysis Date: | 21-MAR-96 | 21-MAR-96 | 21-MAR-96   | 21-MAR-96   | 21-MAR-96 | 21-MAR-96     |
| Prep. Date:    | 20-MAR-96 | 20-MAR-96 | 20-MAR-96   | 20-MAR-96   | 20-MAR-96 | 21-MAR-96     |
| Sample Dup     | lication  |           |             |             |           |               |
| Sample Dup:    | 603301-1  | 603301-1  | 603301-1    | 603301-1    | 603301-1  | 603301-1      |
| Rept Limit:    | <1        | <5        | <1          | <0.5        | <1        | <0.1          |
| Sample Result: | 190       | 180       | 400         | 180         | 190       | 2.5           |
| Dup Result:    | 190       | 180       | 390         | 180         | 190       | 2.6           |
| Sample RPD:    | 0         | 0         | 3           | 0           | 0         | 4             |
| Max RPD:       | 20        | 20        | 20          | 20          | 20        | 20            |
| Dry Weight%    | N/A       | N/A       | N/A         | N/A         | N/A       | N/A           |
| Matrix Spi     | .ke       |           | <b></b>     | <u> </u>    |           |               |
| Sample Spiked: | 603301-1  | 603301-1  | 603301-1    | 603301-1    | 603301-1  | 603301-1      |
| Rept Limit:    | <1        | <5        | <1          | <0.5        | <1        | <0.1          |
| Sample Result: | <1        | <5        | 210         | <0.5        | 7         | <0.1          |
| Spiked Result: | 190       | 180       | 400         | 180         | 190       | 2.5           |
| Spike Added:   | 200       | 200       | 200         | 200         | 200       | 2.5           |
| % Recovery:    | 95        | 90        | 95          | 90          | 92        | 100           |
| % Rec Limits:  | 75-125    | 75-125    | 75-125      | 75-125      | 75-125    | 75-125        |
| Dry Weight%    | N/A       | N/A       | N/A         | N/A         | N/A       | N/A           |
| ICV            |           |           |             |             |           |               |
| ICV Result:    | 5.1       | 5.1       | 5.0         | 5.1         | 5.1       | 0.0042        |
| True Result:   | 5.0       | 5.0       | 5.0         | 5.0         | 5.0       | 0.0040        |
| % Recovery:    | 102       | 102       | 100         | 102         | 102       | 105           |
| % Rec Limits:  | 90-110    | 90-110    | 90-110      | 90-110      | 90-110    | 80-120        |
| LCS            |           |           |             |             |           |               |
| LCS Result:    | 130       | 67        | 200         | 130         | 80        | 2.25          |
| True Result:   | 117       | 62.6      | 197         | 123         | 77.7      | 2.29          |
| % Recovery:    | 111       | 107       | 102         | 106         | 103       | 98            |
| % Rec Limits:  | 50-146    | 49-149    | 53-131      | 56-144      | 54-142    | 53-156        |

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[0) Page 2 Date 22-Mar-96

| Parameter:<br>Batch Id:<br>Blank Result:<br>Anal. Method:<br>Prep. Method:<br>Analysis Date:<br>Prep. Date: | LEAD<br>P6S032<br><5<br>6010<br>3050<br>21-MAR-96<br>20-MAR-96 | "Metals (<br>SELENIUM<br>S6S032<br><10<br>6010<br>3050<br>21-MAR-96<br>20-MAR-96 | Quality | Control | Report" |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------|---------|---------|---------|
| Sample Dup                                                                                                  | lication                                                       |                                                                                  |         |         |         |
| Sample Dup:<br>Rept Limit:                                                                                  | 603301-1<br><5                                                 | 603301-1<br><10                                                                  | _       |         |         |
| Sample Result:<br>Dup Result:<br>Sample RPD:<br>Max RPD:<br>Dry Weight%                                     | 190<br>190<br>0<br>20<br>N/A                                   | 200<br>200<br>0<br>20<br>N/A                                                     |         |         |         |
| Matrix Spi                                                                                                  | ke                                                             |                                                                                  | _       |         |         |
| Sample Spiked:<br>Rept Limit:                                                                               | 603301-1<br><5                                                 | 603301-1<br><10                                                                  | _       |         |         |
| Sample Result:<br>Spiked Result:<br>Spike Added:<br>% Recovery:<br>% Rec Limits:<br>Dry Weight%             | 6<br>190<br>200<br>92<br>75-125<br>N/A                         | <10<br>200<br>200<br>100<br>75-125<br>N/A                                        |         |         |         |
| ICV                                                                                                         |                                                                | . =                                                                              | -       |         |         |
| ICV Result:<br>True Result:<br>% Recovery:<br>% Rec Limits:                                                 | 5.3<br>5.0<br>106<br>90-110                                    | 5.2<br>5.0<br>104<br>90-110                                                      |         |         |         |
| LCS                                                                                                         |                                                                |                                                                                  | -       |         |         |
| LCS Result:<br>True Result:<br>% Recovery:<br>% Rec Limits:                                                 | 180<br>188<br>96<br>53-142                                     | 93<br>86.0<br>108<br>52- <b>149</b>                                              |         |         |         |





[0) Page 3 Date 22-Mar-96

# "Quality Control Comments"

| Batch Id: Co | omments: |
|--------------|----------|
|--------------|----------|

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| A6S032<br>A6S032<br>A6S032<br>R6S032 | ANALYST: JLH<br>The results reported under "Sample Duplication"<br>QC DATA IS REPORTED ON AN AS IS BASIS.<br>ANALYST: JLH | are | the | MS/MSD. |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----|-----|---------|
| R6S032<br>R6S032<br>B6S032           | The results reported under "Sample Duplication"<br>QC DATA IS REPORTED ON AN AS IS BASIS.<br>ANALYST: JLH                 | are | the | MS/MSD. |
| B6S032<br>B6S032<br>C6S032           | The results reported under "Sample Duplication" QC DATA IS REPORTED ON AN AS IS BASIS. ANALYST: JLH                       |     |     |         |
| C6S032<br>C6S032<br>H6S032           | The results reported under "Sample Duplication"<br>QC DATA IS REPORTED ON AN AS IS BASIS.<br>ANALYST: JLH                 |     |     |         |
| H6S032<br>H6S032<br>M4S019           | The results reported under "Sample Duplication"<br>QC DATA IS REPORTED ON AN AS IS BASIS.<br>ANALYST: GJ                  |     |     |         |
| M4S019<br>P6S032                     | The results reported under "Sample Duplication" ANALYST: JLH                                                              |     |     |         |
| P6S032<br>P6S032<br>S6S032           | The results reported under "Sample Duplication"<br>QC DATA IS REPORTED ON AN AS IS BASIS.<br>ANALYST: JLH                 |     |     |         |
| S6S032<br>S6S032                     | The results reported under "Sample Duplication" QC DATA IS REPORTED ON AN AS IS BASIS.                                    | are | the | MS/MSD. |

[0) Page 4 Date 22-Mar-96

----- Common Footnotes Metals -----

N/A = NOT APPLICABLE.

- N/S = NOT SUBMITTED.
- N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
- N/D = NOT DETECTED.
- DISS. OR D = DISSOLVED
- T & D = TOTAL AND DISSOLVED
- R = REACTIVE
- T = TOTAL
- G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL". Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE.
- # = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
- ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
   ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR
- TO ANALYSIS) @ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO
- DIGESTION)
- P = ANALYTICAL (POST DIGESTION) SPIKE.
- I = DUPLICATE INJECTION.
- & = AUTOMATED
- F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
- N/C+ = NOT CALCULABLE
- N/C\* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
- H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL". Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER,

- THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS. NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". SAMPLE IS NON-HOMOGENEOUS.
- J = (FLORIDA DEP 'J' FLAG) MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM. U = (FLORIDA DEP 'U' FLAG) - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED.
- S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE.

FROM ANALYSIS REPORT: RL= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES. Q= QUALIFIER (FOOTNOTE)

FROM QUALITY CONTROL REPORT: RPD= RELATIVE PERCENT DEVIATION. RPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

NOTE: THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS RUN BASIS.

SW-846, 3rd Edition, September 1986 and Revision 1, July 1992. EPA 600/4-79-020, Revised March 1983. NIOSH Manual of Analytical Methods, 3rd Edition.

GJ = GARY JACOBS JR = JOHN REEDJLH = JAMES L. HERED LV = LASSANDRA VON APPEN CD = CHRISTY DRAPER

Quality Control Report

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Analysis: SW 846 8260 TABLE SIX

Accession: 603312 Accession:603312Client:CSX TRANSPORTATIONProject Number:4365BProject Name:GREENVILLE, SCProject Location:GREENVILLE, SCDepartment:ORGANIC/MS

[0) Page 1 Date 02-Apr-96

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"QC Report" Title: Low Soil Blank Batch: MAS027 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

## Blank Id: A Date Analyzed: 25-MAR-96 Date Extracted: N/A n

| Parameters:                                                                                                                                             | Units:  | Results: | Reporting Limits:               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|---------------------------------|
| ACROLEIN<br>ACETONE<br>ACETONITRILE<br>ACRYLONITRILE<br>ALLYL CHLORIDE<br>BENZENE<br>BROMOCHLOROMETHANE<br>BROMODICHLOROMETHANE<br>BROMODICHLOROMETHANE | UG/KG   | ND       | 100                             |
| ACETONE                                                                                                                                                 | UG/KG   | ND       | 10                              |
| ACETONITRILE                                                                                                                                            | UG/KG   | ND       | 100                             |
| ACRYLONITRILE                                                                                                                                           | UG/KG   | ND       | 100                             |
| ALLYL CHLORIDE                                                                                                                                          | UG/KG   | ND       | 100                             |
| BENZENE                                                                                                                                                 | UG/KG   | ND       | 5                               |
| BROMOCHLOROMETHANE                                                                                                                                      | UG/KG   | ND       |                                 |
| BROMOBENZENE                                                                                                                                            | UG/KG   | ND       | 5                               |
| BROMODICHLOROMETHANE                                                                                                                                    | UG/KG   | ND       | 5<br>5<br>5<br>5<br>5<br>5      |
| DROPORO                                                                                                                                                 | UG/KG   | ND       | 5                               |
| BROMOMETHANE                                                                                                                                            | UG/KG   | ND       | 5                               |
| 2 - BUTANONE                                                                                                                                            | UG/KG   | ND       | 5                               |
| CARBON DISULFIDE                                                                                                                                        | UG/KG   | ND       |                                 |
| CHLOROPRENE                                                                                                                                             | UG/KG   | ND       | 5<br>5                          |
| CARBON TETRACHLORIDE                                                                                                                                    | UG/KG   | ND       | 5                               |
| CHLOROBENZENE                                                                                                                                           | UG / KG | ND       | 5                               |
| CHLOROETHANE                                                                                                                                            | UG / KG | ND       | 5                               |
| CHLOROFORM                                                                                                                                              | UG/KG   | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5 |
| CHLOROMETHANE                                                                                                                                           | UG/KG   | ND       | Š                               |
| 2 - CHLOROTOLUENE                                                                                                                                       | UG/KG   | ND       | 5                               |
| 4 - CHLOROTOLUENE                                                                                                                                       | UG/KG   | ND       | 5                               |
| CIS 1,2 DICHLOROETHYLENE                                                                                                                                | UG/KG   | ND       | 5                               |
| CHLORODIBROMOMETHANE                                                                                                                                    | UG/KG   | ND       | 5                               |
| 1,2 DIBROMOETHANE                                                                                                                                       | UG/KG   | ND       | 5                               |
| 1,2-DIBROMO-3-CHLOROPROPANE                                                                                                                             | UG/KG   | ND       | 5                               |
| 1,2-DIBROMO-3-CHLOROPROPANE<br>1,4-DICHLORO-2-BUTENE<br>DIBROMOMETHANE                                                                                  | UG/KG   | ND       | 5                               |
|                                                                                                                                                         | UG/KG   | ND       | 5                               |
| 1,4-DICHLOROBENZENE                                                                                                                                     | UG/KG   | ND       | 5<br>5<br>5                     |
| 1,3-DICHLOROBENZENE                                                                                                                                     | UG/KG   | ND       | 5                               |
| 1,2-DICHLOROBENZENE                                                                                                                                     | UG/KG   | ND       | 5                               |
| DICHLORODIFLUOROMETHANE                                                                                                                                 | UG/KG   | ND       | 5                               |
| 1, 1-DICHLOROETHANE                                                                                                                                     | UG/KG   | ND       | 5                               |
| 1,2-DICHLOROETHANE                                                                                                                                      | UG/KG   | ND       | 5                               |
| 1,1-DICHLOROETHENE                                                                                                                                      | UG/KG   | ND       | 5<br>5<br>5<br>5<br>5<br>5<br>5 |
| 1,3 DICHLOROPROPANE                                                                                                                                     | UG/KG   | ND       | 5                               |
| 2,2-DICHLOROPROPANE<br>1,2-DICHLOROPROPANE<br>CIS-1,3-DICHLOROPROPENE<br>TRANS-1,3-DICHLOROPROPENE<br>1,1 DICHLOROPROPENE<br>FTHYL BENZENE              | UG/KG   | ND       | 5                               |
| 1, 2-DICHLOROPROPANE                                                                                                                                    | UG/KG   | ND       | 5                               |
| UIS-1, 3-DICHLOROPROPENE                                                                                                                                | UG/KG   | ND       | 5                               |
| IRANS-1, 3-DICHLOROPROPENE                                                                                                                              | UG/KG   | ND       | 5                               |
| I, I DICHLOROPROPENE                                                                                                                                    | UG/KG   | ND       | 5<br>5                          |
| BINID DENODNE                                                                                                                                           | UG/KG   | ND       | 5                               |
| METHYL METHACRYLATE                                                                                                                                     | UG/KG   | ND       | 5                               |
| METHACRYLONITRILE<br>4 -METHYL-2-PENTANONE                                                                                                              | UG/KG   | ND       | 5                               |
| HEXACHLOROBUTADIENE                                                                                                                                     | UG/KG   | ND       | 5                               |
| 2-HEXACHLOROBUTADIENE<br>2-HEXANONE                                                                                                                     | UG/KG   | ND       | 5                               |
| 2 - HEARIONE                                                                                                                                            | UG/KG   | ND       | 5                               |

[0) Page 2

Date 02-Apr-96 "QC Report" Title: Low Soil Blank Batch: MAS027 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A Parameters: Units: Results: Reporting Limits: ISOPROPYL BENZENE UG/KG ND 5 ISOBUTYL ALCOHOL UG/KG ND 10 **IODOMETHANE** UG/KG ND **P-ISOPROPYLTOLUENE** UG/KG ND METHYLENE CHLORIDE UG/KG ND NAPHTHALENE UG/KG ND N-BUTYL BENZENE UG/KG ND N-PROPYL BENZENE UG/KG UG/KG ND PROPIONITRILE ND SEC-BUTYL BENZENE UG/KG ND STYRENE UG/KG ND TERT-BUTYL BENZENE UG/KG ND 1, 1, 1, 2-TETRACHLOROETHANE UG/KG ND 1, 1, 2, 2-TETRACHLOROETHANE UG/KG ND TETRACHLOROETHENE UG/KG ND TOLUENE UG/KG 5 ND TOLUENE DIISOCYANATE UG/KG ND 10 TOLUENE DIAMINE UG/KG UG/KG ND 10 TRANS 1,2 DICHLOROETHYLENE ND 555 1,1,1-TRICHLOROETHANE UG/KG ND 1, 1, 2-TRICHLOROETHANE UG/KG ND 1,2,3 TRICHLOROBENZENE 5 5 5 UG/KG ND 1,2,4 TRICHLOROBENZENE UG/KG ND TRICHLOROETHENE UG/KG 5 5 ND TRICHLOROFLUOROMETHANE UG/KG ND 1,2,3 TRICHLOROPROPANE UG/KG ND 5 1,2,4-TRIMETHYLBENZENE 1,3,5-TRIMETHYLBENZENE UG/KG ŝ ND UG/KG ND 5 VINYL ACETATE UG/KG ND 5 VINYL CHLORIDE M, P-XYLENE UG/KG ND 5 UG/KG ND 5 **O-XYLENE** UG/KG ND 5 DIBROMOFLUOROMETHANE %REC/SURR 98 80-120 TOLUENE-D8 %REC/SURR 81-117 103 BROMOFLUOROBENZENE %REC/SURR 99 74-121 ANALYST INITIALS

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Comments:

(0) Page 3 Date 02-Apr-96

"QC Report"

Batch: MAW027 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A Water Blank \_

| Blank Id: A Date Analyzed   | 25-MAR-96    | Date | Extracted: | N/A                                                                                         |
|-----------------------------|--------------|------|------------|---------------------------------------------------------------------------------------------|
| Parameters:                 | Units:       |      | Results:   | Reporting Limits:                                                                           |
| ACROLEIN                    | UG/L         |      | ND         | 100                                                                                         |
| ACETONE                     | UG/L         |      | ND         | 10                                                                                          |
| ACETONITRILE                | UG/L         |      | ND         | 100                                                                                         |
| ACRYLONITRILE               | UG/L         |      | ND         | 100                                                                                         |
| ALLYL CHLORIDE              | UG/L         |      | ND         | 100                                                                                         |
| BENZENE                     | UG/L         |      | ND         | 5                                                                                           |
| BROMOCHLOROMETHANE          | UG/L         |      | ND         | 5                                                                                           |
| BROMOBENZENE                | UG/L         |      | ND         | 5                                                                                           |
| BROMODICHLOROMETHANE        | UG/L         |      | ND         | 5                                                                                           |
| BROMOFORM                   | UG/L         |      | ND         | 5                                                                                           |
| BROMOMETHANE                | UG/L         |      | ND         | 5                                                                                           |
| 2-BUTANONE                  | UG/L         |      | ND         | 5                                                                                           |
| CARBON DISULFIDE            | UG/L         |      | ND         | 5                                                                                           |
| CHLOROPRENE                 | UG/L         |      | ND         | 5                                                                                           |
| CARBON TETRACHLORIDE        | UG/L         |      | ND         | 5                                                                                           |
| CHLOROBENZENÉ               | UG/L         |      | ND         | ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ<br>ទ |
| CHLOROETHANE<br>CHLOROFORM  | UG/L         |      | ND         | 5                                                                                           |
| CHLOROMETHANE               | UG/L<br>UG/L |      | ND<br>ND   | 5                                                                                           |
| 2 - CHLOROTOLUENE           | UG/L         |      | ND         |                                                                                             |
| 4 - CHLOROTOLUENE           | UG/L         |      | ND         | 5                                                                                           |
| CIS 1,2 DICHLOROETHYLENE    | UG/L         |      | ND         | 5                                                                                           |
| CHLORODIBROMOMETHANE        | UG/L         |      | ND         | 5                                                                                           |
| 1,2 DIBROMOETHANE           | UG/L         |      | ND         | 5                                                                                           |
| 1,2-DIBROMO-3-CHLOROPROPANE | UG/L         |      | ND         | 5                                                                                           |
| 1,4-DICHLORO-2-BUTENE       | ŬĠ/Ĺ         |      | ND         | 5                                                                                           |
| DIBROMOMETHANE              | UG/L         |      | ND         | 5                                                                                           |
| 1,4-DICHLOROBENZENE         | UG/L         |      | ND         | 5                                                                                           |
| 1,3-DICHLOROBENZENE         | ŬG/L         |      | ND         | 5                                                                                           |
| 1,2-DICHLOROBENZENE         | UG/L         |      | ND         | 5                                                                                           |
| DICHLORODIFLUOROMETHANE     | UG/L         |      | ND         | 5                                                                                           |
| 1,1-DICHLOROETHANE          | UG/L         |      | NÐ         | 5                                                                                           |
| 1,2-DICHLOROETHANE          | UG/L         |      | ND         | 5                                                                                           |
| 1,1-DICHLOROETHENE          | UG/L         |      | ND         | 5                                                                                           |
| 1,3 DICHLOROPROPANE         | UG/L         |      | ND         | 5                                                                                           |
| 2,2-DICHLOROPROPANE         | UG/L         |      | ND         | 5                                                                                           |
| 1,2-DICHLOROPROPANE         | UG/L         |      | NÐ         | 5                                                                                           |
| CIS-1,3-DICHLOROPROPENE     | UG/L         |      | ND         | 5                                                                                           |
| TRANS-1, 3-DICHLOROPROPENE  | UG/L         |      | ND         | 5                                                                                           |
| 1,1 DICHLOROPROPENE         | UG/L         |      | ND         | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |
| ETHYL BENZENE               | UG/L         |      | NÐ         | 5                                                                                           |
| METHYL METHACRYLATE         | UG/L         |      | ND         | 5                                                                                           |
| METHACRYLONITRILE           | UG/L         |      | ND         | 5                                                                                           |
| 4 -METHYL-2 - PENTANONE     | UG/L         |      | ND         | 5                                                                                           |
| HEXACHLOROBUTADIENE         | UG/L         |      | ND         | 5                                                                                           |
| 2-HEXANONE                  | UG/L         |      | ND         | 5                                                                                           |





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[0) Page 4 Date 02-Apr-96

"OC Report"

|                    |             | "QC Report"  |           |                                                                                             |     |
|--------------------|-------------|--------------|-----------|---------------------------------------------------------------------------------------------|-----|
| Title:             | Water Blank |              |           |                                                                                             |     |
| Batch:             | MAW027      |              |           |                                                                                             |     |
| Analysis Method:   |             | 3rd Edition, | September | 1986 and Rev. 1, July 19                                                                    | 92. |
| Extraction Method: | N/A         |              |           |                                                                                             |     |
|                    |             |              |           |                                                                                             |     |
|                    |             |              |           | m it ministra                                                                               |     |
| Parameters:        |             | Units:       | Results:  | Reporting Limits:                                                                           |     |
| ISOPROPYL BENZENE  |             | UG/L         | ND        | 5                                                                                           |     |
| ISOBUTYL ALCOHOL   |             | UG/L         | ND        | 10                                                                                          |     |
| IODOMETHANE        |             | UG/L         | ND        | 5                                                                                           |     |
|                    |             | UG/L         | ND        | 5                                                                                           |     |
| P-ISOPROPYLTOLUENE |             |              |           | 5                                                                                           |     |
| METHYLENE CHLORIDE |             | UG/L         | ND        | 5                                                                                           |     |
| NAPHTHALENE        |             | UG/L         | ND        | 5                                                                                           |     |
| N-BUTYL BENZENE    |             | UG/L         | ND        | 5                                                                                           |     |
| N-PROPYL BENZENE   |             | UG/L         | ND        | 5                                                                                           |     |
| PROPIONITRILE      |             | UG/L         | ND        | 5                                                                                           |     |
| SEC-BUTYL BENZENE  |             | UG/L         | ND        | 5                                                                                           |     |
| STYRENE            |             | UG/L         | ND        | 5                                                                                           |     |
| TERT-BUTYL BENZENE |             | UG/L         | ND        | 5                                                                                           |     |
| 1,1,1,2-TETRACHLOR |             | UG/L         | ND        | 5                                                                                           |     |
| 1,1,2,2-TETRACHLOR |             | UG/L         | ND        | 5                                                                                           |     |
| TETRACHLOROETHENE  |             | ŪĠ/Ĺ         | ND        | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |     |
| TOLUENE            |             | ŬG/L         | ND        | 5                                                                                           |     |
| TOLUENE DIISOCYANA | TE          | ŬG/L         | ND        | 10                                                                                          |     |
| TOLUENE DIAMINE    |             | ŬG/L         | ND        | 10                                                                                          |     |
| TRANS 1,2 DICHLOR  | OFTHYLENF   | UG/L         | ND        |                                                                                             |     |
| 1,1,1-TRICHLOROETH |             | UG/L         | ND        | 5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 |     |
| 1,1,2-TRICHLOROETH |             | UG/L         | ND        | 5                                                                                           |     |
| 1,2,3 TRICHLOROBEN |             | UG/L         | ND        | 5                                                                                           |     |
|                    |             | UG/L         | ND        | 5                                                                                           |     |
| 1,2,4 TRICHLOROBEN | ZENE        | UG/L         | ND        |                                                                                             |     |
| TRICHLOROETHENE    | TTA NIC     | UG/L<br>UG/L |           | Э<br>Г                                                                                      |     |
| TRICHLOROFLUOROMET |             |              | ND        | 2<br>F                                                                                      |     |
| 1,2,3 TRICHLOROPRO |             | UG/L         | ND        | 5                                                                                           |     |
| 1,2,4-TRIMETHYLBEN |             | UG/L         | ND        | 5                                                                                           |     |
| 1,3,5-TRIMETHYLBEN | ZENE        | UG/L         | ND        | 5                                                                                           |     |
| VINYL ACETATE      |             | UG/L         | ND        | 5 .                                                                                         |     |
| VINYL CHLORIDE     |             | UG/L         | ND        | 5                                                                                           |     |
| M, P-XYLENE        |             | UG/L         | ND        | 5                                                                                           |     |
| O-XYLENE           |             | UG/L         | ND        | 5                                                                                           |     |
| DIBROMOFLUOROMETHA | NE          | %REC/SURR    | 98        | 89-116                                                                                      |     |
| TOLUENE-D8         |             | %REC/SURR    | 103       | 88-110                                                                                      |     |
| BROMOFLUOROBENZENE |             | %REC/SURR    | 99        | 86-115                                                                                      |     |
| ANALYST            |             | INITIALS     | LL        |                                                                                             |     |
|                    |             | _            |           |                                                                                             |     |

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Comments:

[0) Page 5 Date 02-Apr-96

"QC Report" Title: Low Soil Reagent MAS027 Batch: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Analysis Method: Extraction Method: N/A

RS Date Analyzed: 25-MAR-96 RSD Date Analyzed: 25-MAR-96

.

| RS Date Analyzed:<br>RSD Date Analyzed:                                                     | 25 - MAR - 96<br>25 - MAR - 96               |                                                    |                                          | RS D<br>RSD                                    | ate Extra<br>Date Extr                    | acted:<br>acted                                  | N/<br>: N/              | A<br>A                                          |                                                              |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|------------------------------------------|------------------------------------------------|-------------------------------------------|--------------------------------------------------|-------------------------|-------------------------------------------------|--------------------------------------------------------------|
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>45<br>46<br>49<br>46<br>46 | RS<br>%Rec<br>90<br>92<br>98<br>92<br>92<br>92 | RSD<br>Conc<br>45<br>46<br>50<br>46<br>47 | RSD<br>%Rec<br>90<br>92<br>100<br>92<br>92<br>94 | RPD<br>0<br>2<br>0<br>2 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                                    |                                          | 99<br>107<br>100                               |                                           | 98<br>106<br>101                                 |                         |                                                 | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0) Page 6 Date 02-Apr-96

"QC Report" Title: Water Reagent Batch: MAW027 Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

RS Date Analyzed: 25-MAR-96 RSD Date Analyzed: 25-MAR-96

RS Date Extracted: N/A RSD Date Extracted: N/A

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| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5 | RS<br>Conc<br>45<br>46<br>49<br>46<br>46 | RS<br>%Rec<br>90<br>92<br>98<br>92<br>92<br>92 | RSD<br>Conc<br>45<br>46<br>50<br>46<br>47 | RSD<br>%Rec<br>90<br>92<br>100<br>92<br>94 | RPD<br>0<br>2<br>0<br>2 | RPD<br>Lmts<br>30<br>30<br>30<br>30<br>30<br>30 | Rec<br>Lmts<br>72-122<br>81-114<br>87-120<br>83-120<br>87-113 |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|------------------------------------------|------------------------------------------------|-------------------------------------------|--------------------------------------------|-------------------------|-------------------------------------------------|---------------------------------------------------------------|
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                              |                                          | 99<br>107<br>100                               |                                           | 98<br>106<br>101                           |                         |                                                 | 89-116<br>88-110<br>86-115                                    |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

| Title: Low Soil N<br>Batch: MAS027<br>Analysis Method: 8260 / SW-<br>Extraction Method: N/A | Matrix<br>-846, 3rd                                | "QC Rep<br>Edition,                                            |                                          | r 1986                               | and Rev.                                  | Da                    | te                               | age 7<br>02-Ap<br>992.                    | r-96                                                         |
|---------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------|------------------------------------------|--------------------------------------|-------------------------------------------|-----------------------|----------------------------------|-------------------------------------------|--------------------------------------------------------------|
| Dry Weight %: 70<br>Sample Spiked: 603312-2                                                 |                                                    | Analyzed<br>e Analyze                                          |                                          |                                      |                                           | e Extra<br>ite Extr   |                                  |                                           | /A<br>/A                                                     |
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>71<br>71<br>71<br>71<br>71<br>71 | Sample<br>Conc<br><7.1<br><7.1<br><7.1<br><7.1<br><7.1<br><7.1 | MS<br>Conc<br>70<br>70<br>79<br>70<br>71 | MS<br>%Rec<br>99<br>111<br>99<br>100 | MSD<br>Conc<br>66<br>64<br>71<br>63<br>64 | 93<br>90<br>100<br>89 | RPD<br>6<br>10<br>10<br>11<br>11 | RPD<br>Lmts<br>42<br>20<br>20<br>44<br>20 | Rec<br>Lmts<br>1-234<br>71-157<br>37-151<br>47-150<br>37-160 |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                                    |                                                                |                                          | 99<br>106<br>101                     |                                           | 102<br>105<br>109     |                                  |                                           | 80-120<br>81-117<br>74-121                                   |

Comments:

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.



"QC Report"

[0) Page 8 Date 02-Apr-96

Title: Water Matrix MAW027 Batch: Analysis Method: 8260 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: N/A

| Dry Weight %: N/A<br>Sample Spiked: 603315-5                                                |                                              | Analyzed<br>Analyzed                               |                                          |                                           | MS Date<br>MSD Dat                        |                                            |                               |                                           | /A<br>/A                                                      |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|--------------------------------------------|-------------------------------|-------------------------------------------|---------------------------------------------------------------|
| Parameters:<br>1,1-DICHLOROETHENE<br>TRICHLOROETHENE<br>BENZENE<br>TOLUENE<br>CHLOROBENZENE | Spike<br>Added<br>50<br>50<br>50<br>50<br>50 | Sample<br>Conc<br><5<br><5<br><5<br><5<br><5<br><5 | MS<br>Conc<br>42<br>46<br>52<br>47<br>46 | MS<br>%Rec<br>84<br>92<br>104<br>94<br>92 | MSD<br>Conc<br>44<br>47<br>52<br>48<br>47 | MSD<br>%Rec<br>88<br>94<br>104<br>96<br>94 | R PD<br>5<br>2<br>0<br>2<br>2 | RPD<br>Lmts<br>14<br>24<br>16<br>15<br>15 | Rec<br>Lmts<br>74-124<br>79-116<br>65-142<br>89-114<br>85-116 |
| Surrogates:<br>DIBROMOFLUOROMETHANE<br>TOLUENE-D8<br>BROMOFLUOROBENZENE                     |                                              |                                                    |                                          | 98<br>106<br>104                          |                                           | 98<br>107<br>107                           |                               |                                           | 89-116<br>88-110<br>86-115                                    |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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[0) Page 9 Date 02-Apr-96

### Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLÍGRAMS PER CUBIC METER. NG = NANOGRAMS. UG = MICROGRAMS PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT.
\* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS</pre> J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD. ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.

DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLMO1.8, AUGUST 1991.

| LP =  | LEVERNE PETERSON   | RW = | RITA WINGO      |
|-------|--------------------|------|-----------------|
| DWB = | DAVID BOWERS       | LD = | LARRY DILMORE   |
| DB =  | DENNIS BESON       | DC = | DAVID CELESTIAL |
| LL =  | LANCE LARSON       | RB = | RAFAEL BARRAZA  |
| JA =  | JENNIFER ALEXANDER | PL ≃ | PAUL LESCHENSKY |

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Quality Control Report

Analysis: BN EXTRACTABLES (8270)

603312 Accession: CSX TRANSPORTATION Client: Project Number: 4365B Project Name: GREENVILLE, SC Project Location: GREENVILLE, SC Department: ORGANIC/MS

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[0) Page 1 Date 12-Apr-96

|                       |                  | "OC            | Report" |             |            |      | 5000 |      | ibr 20 |
|-----------------------|------------------|----------------|---------|-------------|------------|------|------|------|--------|
| Title:                | Soil Blank       | *~             |         |             | •          |      |      |      |        |
| Batch                 | ALS021           |                |         |             |            |      |      |      |        |
| Analysis Method:      | 8270 / SW-846    | , 3rd E        | dition, | September   | 1986 and   | Rev. | 1,   | July | 1992.  |
| Extraction Method:    | 3550 / SW-846    | , 3rd E        | dition, | September   | 1986 and   | Rev. | 1,   | July | 1992.  |
|                       |                  |                |         |             |            |      |      |      | •      |
|                       |                  | <b>NDD 0</b> C | Det     | e Extracted | 4. 10 MAD  | 96   |      |      |        |
| Blank Id: A Date      | e Analyzed: 03   | -APR-96        | Dat     | e Exclacted | 1: 19-MAR  | - 90 |      |      |        |
| Parameters:           |                  | Uni            | ts:     | Results:    | Report     | ina  | Lim  | its: |        |
| rarameters.           |                  | 01             |         |             |            | 5    |      |      |        |
| P-CHLORO-M-CRESOL     |                  | UG/            | 'KG     | ND          | 10         |      |      |      |        |
| 2 - CHLOROPHENOL      |                  | UG/            |         | ND          | 10         |      |      |      |        |
| O-CRESOL              |                  | UG/            |         | ND          | 10         |      |      |      |        |
| M, P CRESOL           |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 2,4-DICHLOROPHENOL    |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 2,6-DICHLOROPHENOL    |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 2,4-DIMETHYLPHENOL    |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 4,6-DINITRO-O-CRES    | OL               | UG/            |         | ND          | 50         |      |      |      |        |
| 2,4-DINITROPHENOL     |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 2-NITROPHENOL         |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 4-NITROPHENOL         |                  | UG/            |         | ND          | 50         |      |      |      |        |
| PENTACHLOROPHENOL     |                  | UG/            |         | ND          | 50         |      |      |      |        |
| PHENOL                |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 2,3,4,6-TETRACHLOR    |                  | UG/            |         | ND          | 10         |      |      |      |        |
| 2,4,5-TRICHLOROPHE    |                  | UG/            |         | ND          | 50         |      |      |      |        |
| 2,4,6-TRICHLOROPHE    | NOL              | UG/            |         | ND          | 10         |      |      |      |        |
| ACENAPHTHENE          |                  | UG/            |         | ND          | 10         |      |      |      |        |
| ACENAPHTHYLENE        |                  | UG/            |         | ND          | 10         |      |      |      |        |
| ACETOPHENONE          | <b>D</b> ATE:    | UG/            |         | ND          | 10         |      |      |      |        |
| 2 - ACETYLAMINOFLUOR  | ENE              | UG/<br>UG/     |         | ND          | 10<br>10 · |      |      |      |        |
| 4-AMINOBIPHENYL       |                  | UG/<br>UG/     |         | ND<br>ND    | 10         |      |      |      |        |
| ANILINE<br>ANTHRACENE |                  | UG/            |         | ND          | 10         |      |      |      |        |
| ARAMITE               |                  | UG/            |         | ND          | 10         |      |      |      |        |
| BENZO (A) ANTHRACE    | NE               | UG/            |         | ND          | ĩõ         |      |      |      |        |
| BENZO (A) PYRENE      |                  | UG/            |         | ND          | 10         |      |      |      |        |
| BENZO (B) FLUORANT    | HENE             | ŬĜ/            |         | ND          | 10         |      |      |      |        |
| BENZO (G, H, I) PERY  |                  | ŪĠ             |         | ND          | 10         |      |      |      |        |
| BENZO (K) FLUORANT    |                  | ŬĠ,            |         | ND          | 10         |      |      |      |        |
| BENZYL ALCOHOL        |                  | ŪĠ             |         | ND          | 10         |      |      |      |        |
| BIS (2-CHLORO-1-MET   | 'HYLETHYL) ETHER |                |         | ND          | 10         |      |      |      |        |
| BIS (2 - CHLOROETHOXY |                  | UG,            | /KG     | ND          | 10         |      |      |      |        |
| BIS(2-CHLOROETHYL)    | ETHER            | ŪG,            | /KG     | ND          | 10         |      |      |      |        |
| BIS (2-ETHYLHEXYL) P  | PHTHALATE        | UG,            |         | ND          | 10         |      |      |      |        |
| 4-BROMOPHENYL PHEN    | IYL ETHER        | UG,            |         | ND          | 10         |      |      |      |        |
| BUTYLBENZYL PHTHAL    | ATE              |                | KG      | ND          | 10         |      |      |      |        |
| P-CHLOROANILINE       |                  |                | /KG     | ND          | 10         |      |      |      |        |
| CHLOROBENZILATE       |                  |                | /KG     | ND          | 10         |      |      |      |        |
| 2-CHLORONAPHTHALEN    |                  | UG,            |         | ND          | 10         |      |      |      |        |
| 4 - CHLOROPHENYL PHE  | INYL ETHER       |                | /KG     | ND          | 10         |      |      |      |        |
| CHRYSENE              |                  |                | /KG     | ND          | 10         |      |      |      |        |
| DIALLATE              | 010010           |                | /KG     | ND          | 10         |      |      |      |        |
| DIBENZO (A, H) ANTH   | IRACENE          |                | /KG     | ND          | 10         |      |      |      |        |
| DIBENZOFURAN          |                  |                | /KG     | ND          | 10         |      |      |      |        |
| 1,2-DICHLOROBENZEN    |                  |                | /KG     | ND          | 10         |      |      |      |        |
| 1,3-DICHLOROBENZEN    | 1E               | UG,            | /KG     | ND          | 10         |      |      |      |        |
|                       |                  |                |         |             |            |      |      |      |        |

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[0) Page 2 Date 12-Apr-96

|                                        |               |              |           |             | Date 12-Apr-96   |
|----------------------------------------|---------------|--------------|-----------|-------------|------------------|
|                                        |               | "QC Report"  |           |             |                  |
| Title:                                 | Soil Blank    |              |           |             |                  |
| Batch:                                 | ALS021        |              |           |             |                  |
| Analysis Method:                       | 8270 / SW-846 | 3rd Edition. | September | 1986 and Re | v. 1. Julv 1992. |
| Analysis Method:<br>Extraction Method: | 3550 / SW-846 | 3rd Edition  | Sentember | 1986 and Re | v 1 July 1992    |
|                                        | 3330 / 3 010  | Jid Baielon, | bepeenber | 1900 and Ke | •: 1, Suly 1952. |
|                                        |               |              |           |             |                  |
| Demomotory.                            |               | Units:       | Results:  | Doportin    | a limita         |
| Parameters:                            |               | UNILS:       | Resurcs:  | Reportin    | g Limits:        |
|                                        | -             |              | NTS       | 1.0         |                  |
| 1,4-DICHLOROBENZEN                     |               | UG/KG        | ND        | 10          |                  |
| 3,3'-DICHLOROBENZI                     | DINE          | UG/KG        | ND        | 50          |                  |
| DIETHYLPHTHALATE                       |               | UG/KG        | ND        | 10          |                  |
| DIMETHOATE                             |               | UG/KG        | ND        | 10          |                  |
| P-DIMETHYLAMINOAZO                     | BENZENE       | UG/KG        | ND        | 10          |                  |
| 7,12-DIMETHYLBENZ()                    | A) ANTHRACENE | UG/KG        | ND        | 10          |                  |
| 3,3'-DIMETHYLBENZI                     | DINE          | UG/KG        | ND        | 10          |                  |
| A, A-DIMETHYLPHENET                    | HYLAMINE      | UG/KG        | ND        | 10          |                  |
| DIMETHYLPHTHALATE                      |               | UG/KG        | ND        | 10          |                  |
| DI-N-BUTYLPHTHALAT                     | E             | UG/KG        | ND        | 10          |                  |
| M-DINITROBENZENE                       | 2             | UG/KG        | ND        | 10 .        |                  |
| 2,4-DINITROTOLUENE                     |               | UG/KG        | ND        | 10          |                  |
|                                        |               | UG/KG        | ND        | 10          |                  |
| 2,6-DINITROTOLUENE                     |               | · .          |           |             |                  |
| DI-N-OCTYLPHTHALAT                     | E             | UG/KG        | ND        | 10          |                  |
| DIPHENYLAMINE                          |               | UG/KG        | ND        | 10          |                  |
| ETHYL METHANESULFO                     | NATE          | UG/KG        | ND        | 10          |                  |
| FAMPHUR                                |               | UG/KG        | ND        | 10          |                  |
| FLUORANTHENE                           |               | UG/KG        | ND        | 10          |                  |
| FLUORENE                               |               | UG/KG        | ND        | 10          |                  |
| HEXACHLOROBENZENE                      |               | UG/KG        | ND        | 10          |                  |
| HEXACHLOROBUTADIEN                     | E             | UG/KG        | ND        | 10          |                  |
| HEXACHLOROCYCLOPEN'                    | TADIENE       | UG/KG        | ND        | 10          |                  |
| HEXACHLOROETHANE                       |               | UG/KG        | ND        | 10          |                  |
| HEXACHLOROPHENE                        |               | UG/KG        | ND        | 10          |                  |
| HEXACHLOROPROPENE                      |               | UG/KG        | ND        | 10          |                  |
| INDENO (1,2,3-CD)                      | PYRENE        | UG/KG        | ND        | 10          |                  |
| ISODRIN                                | T TREND       | UG/KG        | ND        | 10          |                  |
| ISOPHORONE                             |               | UG/KG        | ND        | 10          |                  |
| ISOSAFROLE                             |               |              | ND        | 10          |                  |
|                                        |               | UG/KG        |           |             |                  |
| KEPONE                                 |               | UG/KG        | ND        | 10          |                  |
| METHAPYRILENE                          |               | UG/KG        | ND        | 10          |                  |
| 3-METHYLCHOLANTHRE                     |               | UG/KG        | ND        | 10          |                  |
| METHYL METHANESULF                     |               | UG/KG        | ND        | 10          |                  |
| 1-METHYLNAPHTHALEN                     |               | UG/KG        | ND        | 10          |                  |
| 2-METHYLNAPHTHALEN                     | E             | UG/KG        | ND        | 10          |                  |
| NAPHTHALENE                            |               | UG/KG        | ND        | 10          |                  |
| 1,4-NAPHTHOQUINONE                     |               | UG/KG        | ND        | 10          |                  |
| 1-NAPHTHYLAMINE                        |               | UG / KG      | ND        | 10          |                  |
| 2-NAPHTHYLAMINE                        |               | UG/KG        | ND        | 10          |                  |
| 2-NITROANILINE                         |               | UG/KG        | ND        | 50          |                  |
| 3-NITROANILINE                         |               | UG/KG        | ND        | 50 .        |                  |
| 4-NITROANILINE                         |               | UG/KG        | ND        | 50          |                  |
| NITROBENZENE                           |               | UG/KG        | ND        | 10          |                  |
|                                        | E.            |              |           |             |                  |
| 5-NITRO-O-TOLUIDIN                     |               | UG/KG        | ND        | 10          |                  |
| 4-NITROQUINOLINE-1                     |               | UG/KG        | ND        | 10          |                  |
| N-NITROSODIETHYLAM                     |               | UG/KG        | ND        | 10          |                  |
| N-NITROSODIMETHYLA                     | MINE          | UG/KG        | ND        | 10          |                  |
|                                        |               |              |           |             |                  |

[0) Page 3 Date 12-Apr-96 "OC Report" Soil Blank Title: ALS021 Batch: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Results: Reporting Limits: Units: Parameters: ND 10 N-NITROSODI-N-BUTYLAMINE UG/KG UG/KG UG/KG ND 10 N-NITROSODIPHENYLAMINE 10 ND N-NITROSOMETHYLETHYLAMINE UG/KG ND 10 N-NITROSOMORPHOLINE ND 10 UG/KG N-NITROSOPIPERIDINE UG/KG ND 10 N-NITROSOPYRROLIDINE UG/KG ND 10 PARATHION UG/KG ND 10 PENTACHLOROBENZENE PENTACHLOROETHANE UG/KG ND 10 UG/KG ND PENTACHLORONITROBENZENE 10 UG/KG ND 10 PHENACETIN UG/KG ND 10 PHENANTHRENE UG/KG ND 10 2-PICOLINE UG/KG ND 10 **P-PHENYLENEDIAMINE** UG/KG ND 10 PRONAMIDE UG/KG ND 10 PYRENE UG/KG ND 10 PYRIDINE UG/KG ND 10 SAFROLE UG/KG UG/KG ND 10 SULFOTEPP ND 1,2,4,5-TETRACHLOROBENZENE 10 UG/KG ND 10 THIONAZIN UG/KG UG/KG ND 10 O-TOLUIDINE 1,2,4 TRICHLOROBENZENE ND 10 SYM-TRINITROBENZENE UG/KG ND 10 O,O,O-TRIETHYL PHOSPHOROTHIATE 10 UG/KG ND UG/KG ND 10 BENZIDINE BIS (2 - CHLOROISOPROPYL) ETHER UG/KG 10 ND 2-(SEC BUTYL)4,6-DINITRO-PHENOL (DINOSEB) 10 UG/KG ND UG/KG N-NITROSO-DI-N-PROPYLAMINE 10 ND 2-FLUOROBIPHENYL %REC/SURR 76 30-115 \*REC/SURR \*REC/SURR \*REC/SURR \*REC/SURR 90 TERPHENYL-D14 18-137 NITROBENZENE-D5 66 23-120 71 25-121 2-FLUOROPHENOL PHENOL-D6 68 24-113 2,4,6-TRIBROMOPHENOL ANALYST %REC/SURR 70 19-122 INITIALS  $\mathbf{PL}$ 

Comments:

[0) Page 4 Date 12-Apr-96

"QC Report" Soil Reagent Title: ALS021 Batch: Analysis Method: 8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992. Extraction Method: 3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.

RS Date Analyzed: 03-APR-96 RSD Date Analyzed: 03-APR-96 RS Date Extracted: 19-MAR-96 RSD Date Extracted: 19-MAR-96 RSD Sample RS RS RSD RPD Rec Spike %Rec RPD Lmts Lmts %Rec Conc Conc Conc Added Parameters: 3333 <330 2200 66 2500 75 13 27 5-112 PHENOL 2200 2533 76 14 32 38-123 2 - CHLOROPHENOL 3333 <330 66 84 25 50-111 72 1400 15 1,4-DICHLOROBENZENE 1667 <330 1200 N-NITRO-DI-N-PROPYLAMINE 25 1667 <330 1100 66 1200 72 9 39-121 82 13 24 49-115 1200 72 1367 <330 1,2,4 TRICHLOROBENZENE 1667 37-128 4 - CHLORO - 3 - METHYLPHENOL 3333 <330 2400 72 2633 79 9 26 82 2 19 53-115 <330 1333 80 1367 ACENAPHTHENE 1667 50 32-126 3333 <1700 2300 69 2400 72 4 4 - NITROPHENOL 1167 70 1233 74 6 21 56-118 1667 <330 2,4-DINITROTOLUENE 31-146 84 2.0 PENTACHLOROPHENOL 3333 <1700 2700 81 2800 4 <330 1067 64 1133 68 6 23 52-115 1667 PYRENE Surrogates: 75 23-120 84 NITROBENZENE-D5 30-115 84 89 2-FLUOROBIPHENYL 92 94 18-137 TERPHENYL-D14 76 86 24-113 PHENOL-D6 2 - FLUOROPHENOL 77 86 25 - 1214,6-TRIBROMOPHENOL 79 81 19-122

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.



[0) Page 5 Date 12-Apr-96

#### "QC Report"

Soil Matrix Title: ALS021Batch:Analysis Method:8270 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.Extraction Method:3550 / SW-846, 3rd Edition, September 1986 and Rev. 1, July 1992.

| Dry Weight %: 74<br>Sample Spiked: 603254-11                                                                                                                                                                                          | MS Date<br>MSD Date                                                                          | Analyzed:<br>Analyzed                                                                                             | 10-APR-<br>: 10-APR-                                                         | 96<br>96                                                               | MS Date<br>MSD Dat                                                           | Extr<br>e Ext                                                                 | acteo                                                               |                                                                               | 9 - MAR - 96<br>9 - MAR - 96                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Parameters:<br>PHENOL<br>2-CHLOROPHENOL<br>1,4-DICHLOROBENZENE<br>N-NITRO-DI-N-PROPYLAMINE<br>1,2,4 TRICHLOROBENZENE<br>4-CHLORO-3-METHYLPHENOL<br>ACENAPHTHENE<br>4-NITROPHENOL<br>2,4-DINITROTOLUENE<br>PENTACHLOROPHENOL<br>PYRENE | Spike<br>Added<br>44<br>22<br>22<br>22<br>22<br>44<br>22<br>44<br>22<br>44<br>22<br>44<br>22 | Sample<br>Conc<br><330<br><330<br><330<br><330<br><330<br><330<br><1700<br><330<br><1700<br><330<br><1700<br><330 | MS<br>Conc<br>29<br>31<br>16<br>12<br>15<br>26<br>16<br>20<br>15<br>27<br>15 | MS<br>%Rec<br>65<br>72<br>54<br>70<br>58<br>72<br>45<br>66<br>60<br>70 | MSD<br>Conc<br>25<br>28<br>16<br>9<br>15<br>20<br>14<br>14<br>13<br>23<br>13 | MSD<br>%Rec<br>56<br>62<br>70<br>42<br>66<br>44<br>64<br>32<br>52<br>58<br>58 | RPD<br>15<br>11<br>3<br>25<br>6<br>27<br>12<br>34<br>16<br>14<br>19 | RPD<br>Lmts<br>22<br>27<br>27<br>27<br>21<br>28<br>20<br>42<br>23<br>33<br>31 | Rec<br>Lmts<br>40-103<br>39-104<br>43-109<br>29-117<br>49-126<br>32-117<br>47-126<br>1-124<br>43-110<br>14-144<br>52-115 |
| Surrogates:<br>NITROBENZENE-D5<br>2-FLUOROBIPHENYL<br>TERPHENYL-D14<br>PHENOL-D6<br>2-FLUOROPHENOL<br>6-TRIBROMOPHENOL                                                                                                                |                                                                                              |                                                                                                                   |                                                                              | 62<br>64<br>70<br>57<br>60<br>53                                       |                                                                              | 70<br>74<br>79<br>67<br>71<br>64                                              |                                                                     |                                                                               | 23-120<br>30-115<br>18-137<br>24-113<br>25-121<br>19-122                                                                 |

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT UG/KG = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

[0] Page 6 Date 12-Apr-96

#### Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLED = DILUTED OUTUG/L = PARTS PER BILLION. UG/KG = PARTS PER BILLION. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. MG/M3 = MILLIGRAMS PER CUBIC METER. NG = NANOGRAMS UG = MICROGRAMS. PPBV = PARTS PER BILLION/VOLUME. < = LESS THAN DETECTION LIMIT. \* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS J = THE REPORTED VALUE IS EITHER LESS THAN THE REPORTING LIMIT BUT GREATER THAN ZERO, OR QUANTITATED AS A TIC; THEREFORE, IT IS ESTIMATED. JJ = REPORTED VALUE IS ESTIMATED DUE TO MATRIX INTERFERENCE. ND = NOT DETECTED ABOVE REPORT LIMIT. RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD. ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS. DUE TO THE NATURE OF THE SAMPLE MATRIX, MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS CANNOT BE PERFORMED FOR AIR ANALYSIS.

CLP SOW 1991, USEPA CONTRACT LABORATORY PROGRAM, STATEMENT OF WORK FOR ORGANICS ANALYSIS, DOCUMENT NUMBER OLMO1.8, AUGUST 1991.

| LP = LEVERNE PETERSON   | RW = RITA WINGO      |
|-------------------------|----------------------|
| DWB = DAVID BOWERS      | LD = LARRY DILMORE   |
| DB = DENNIS BESON       | DC = DAVID CELESTIAL |
| LL = LANCE LARSON       | RB = RAFAEL BARRAZA  |
| JA = JENNIFER ALEXANDER | PL = PAUL LESCHENSKY |

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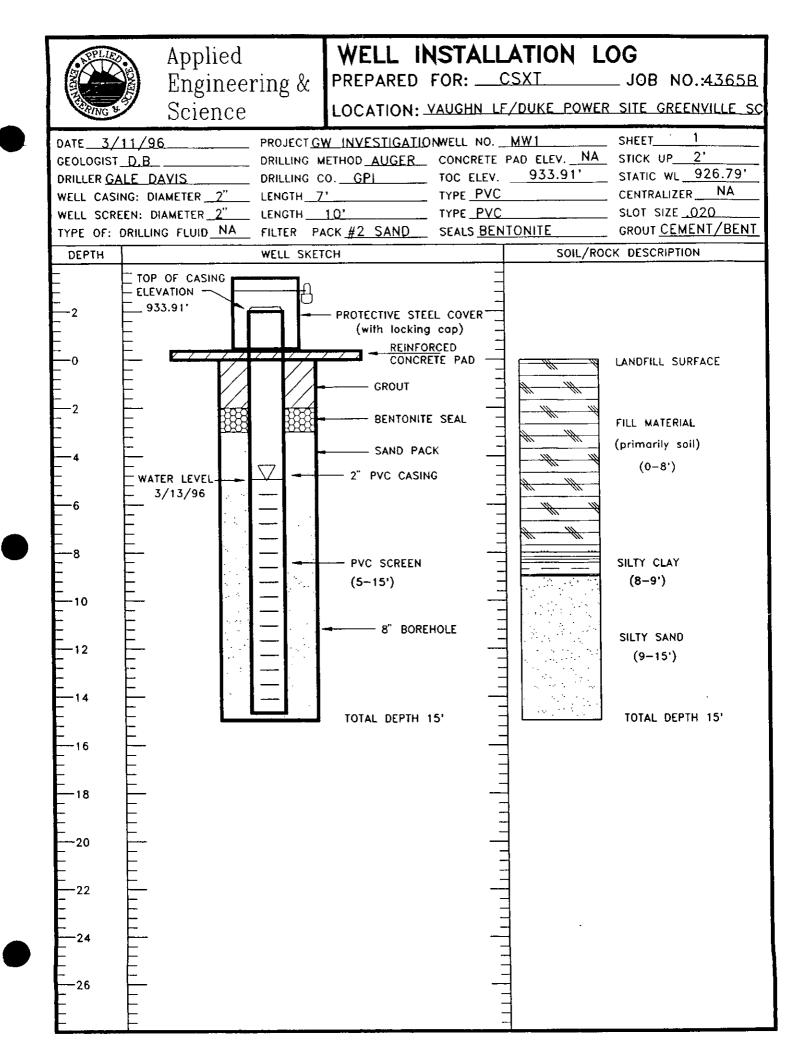
H

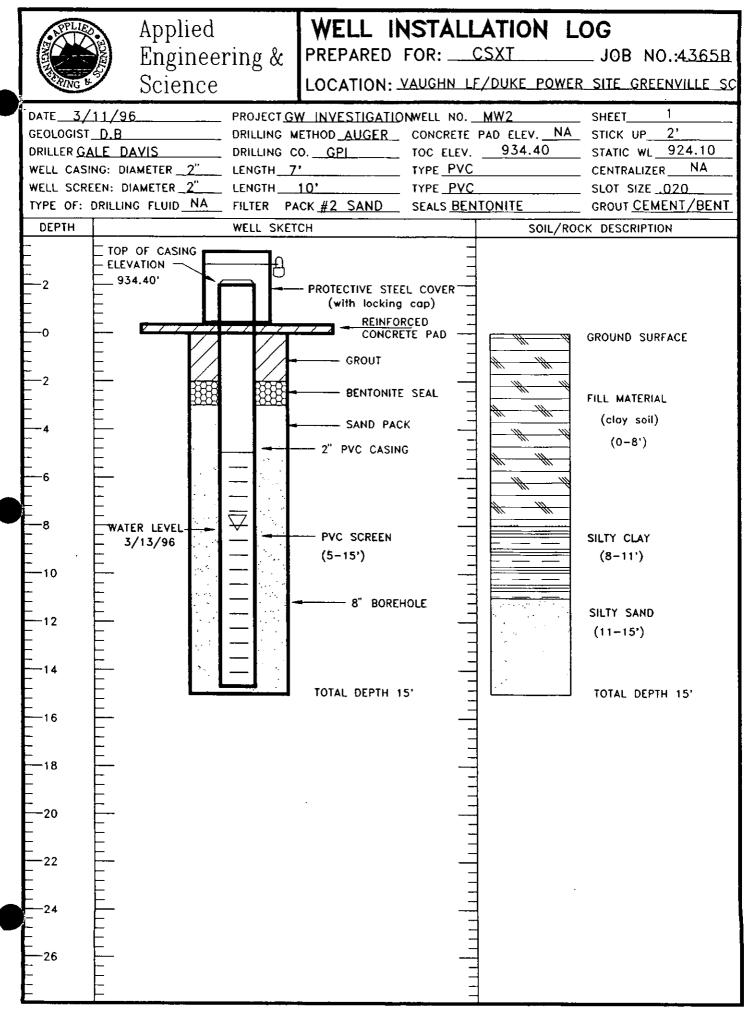
Notes \_\_\_\_\_ \_\_\_\_\_ . . .....

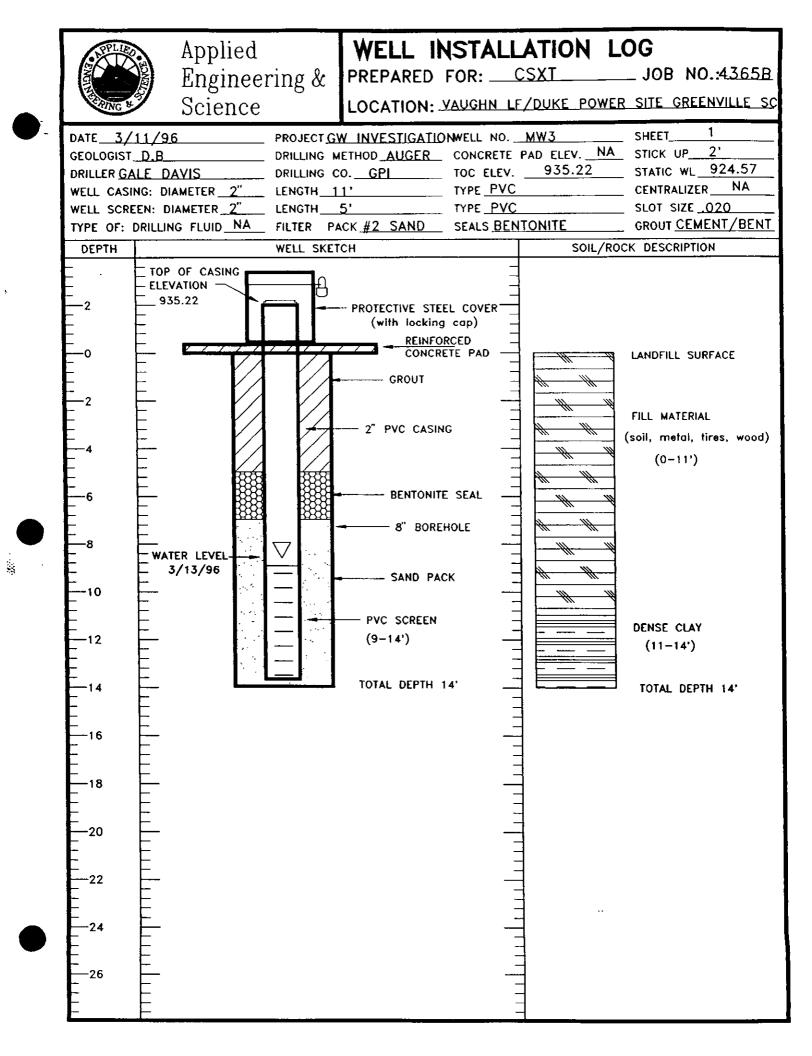
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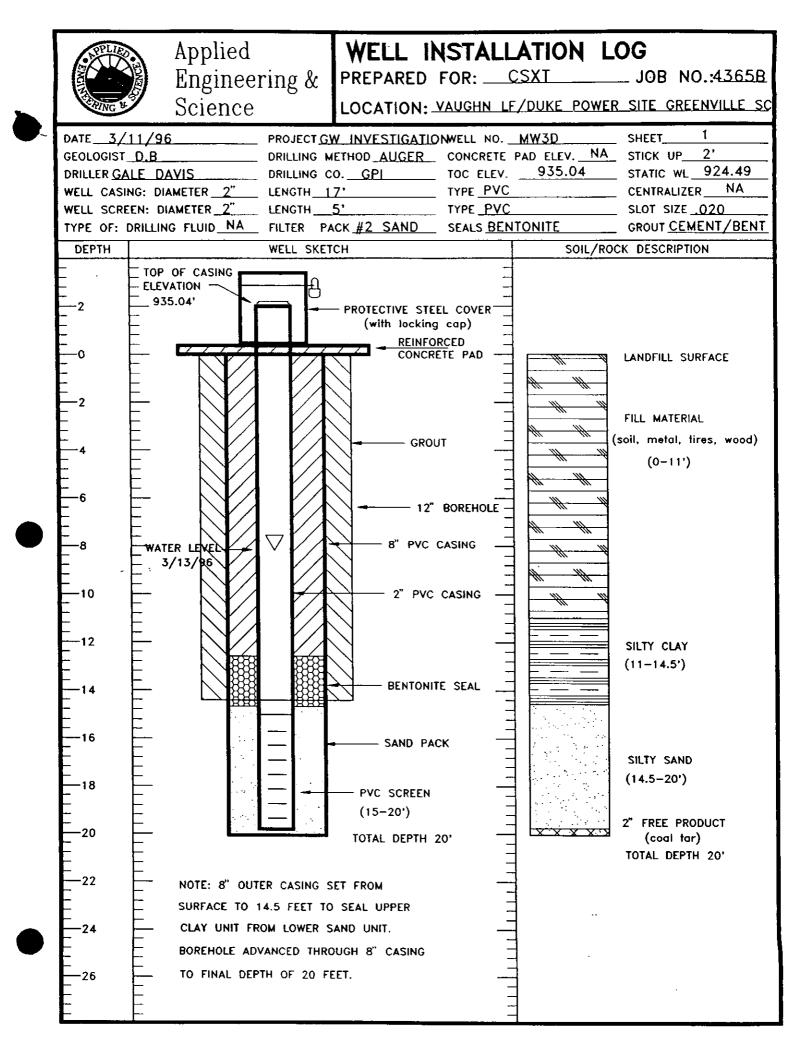
## **APPENDIX H**

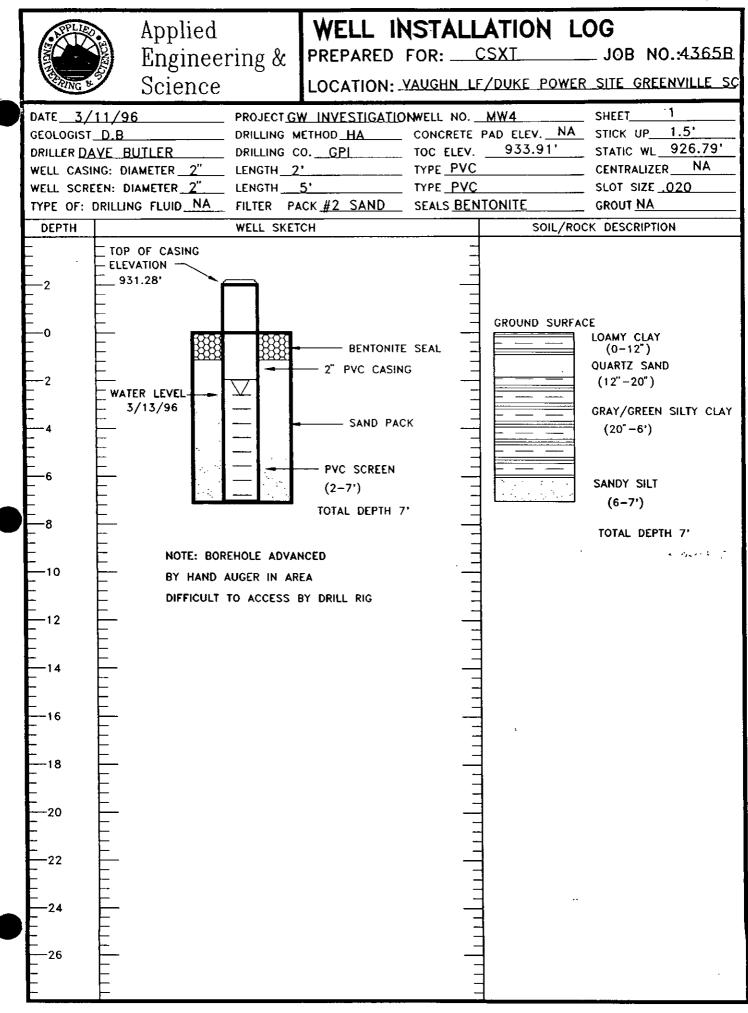
## WELL CONSTRUCTION DIAGRAMS

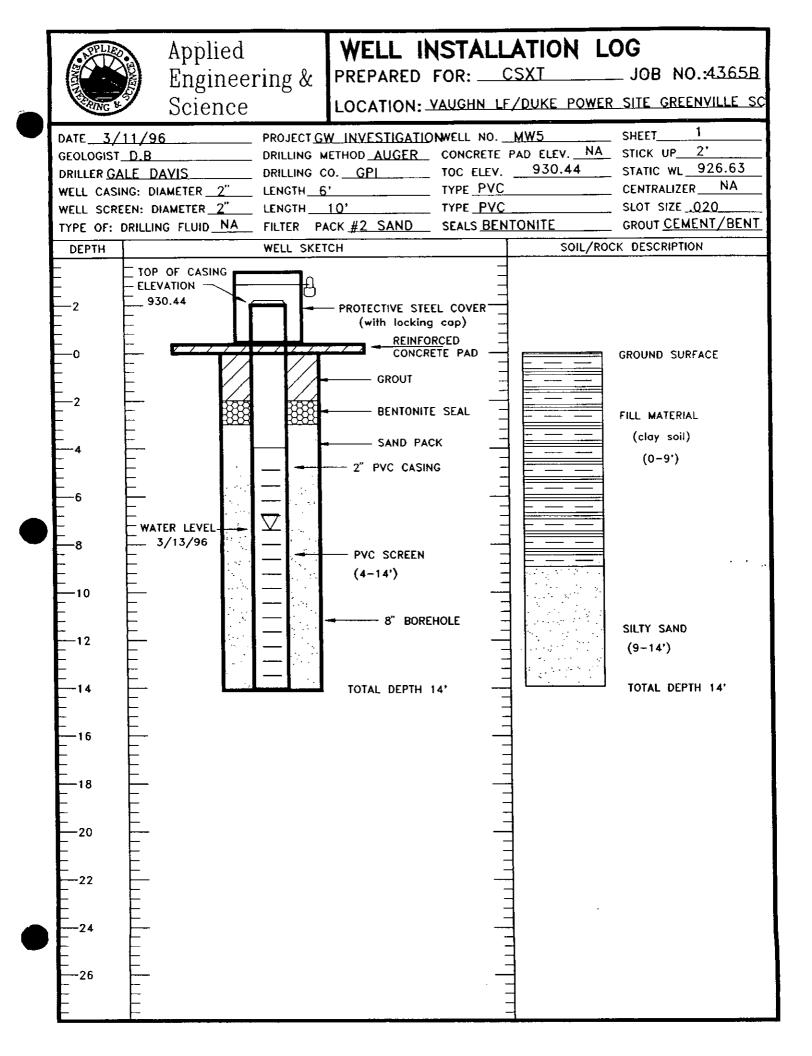


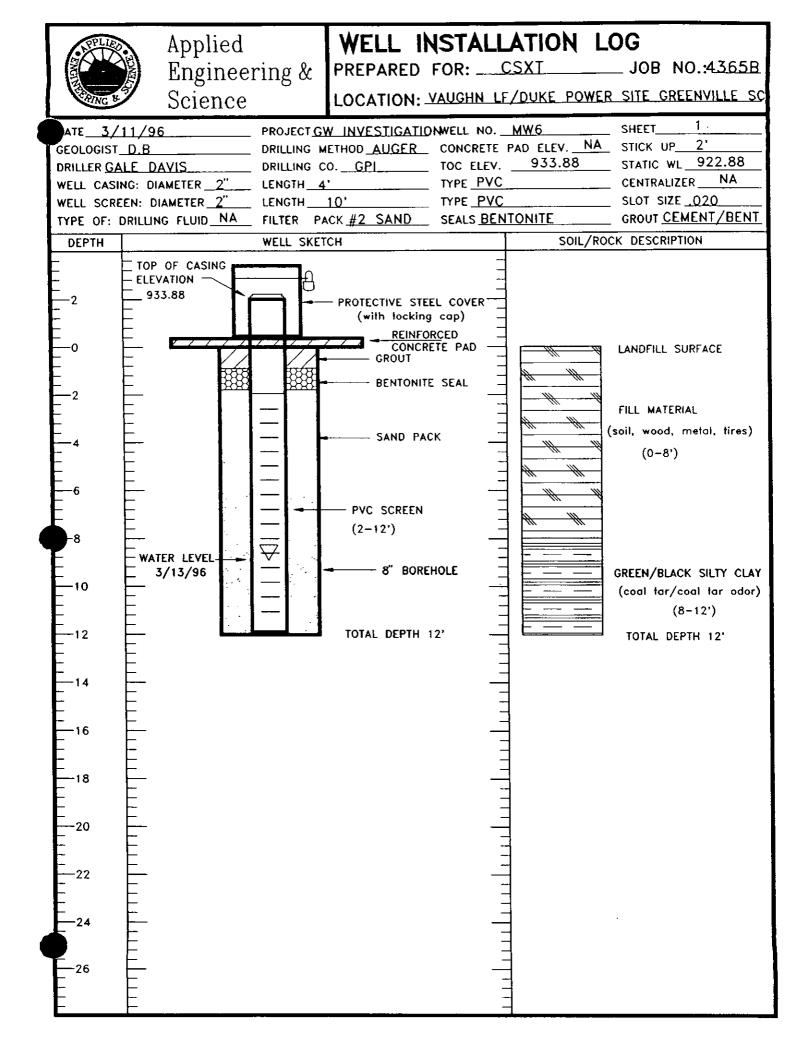


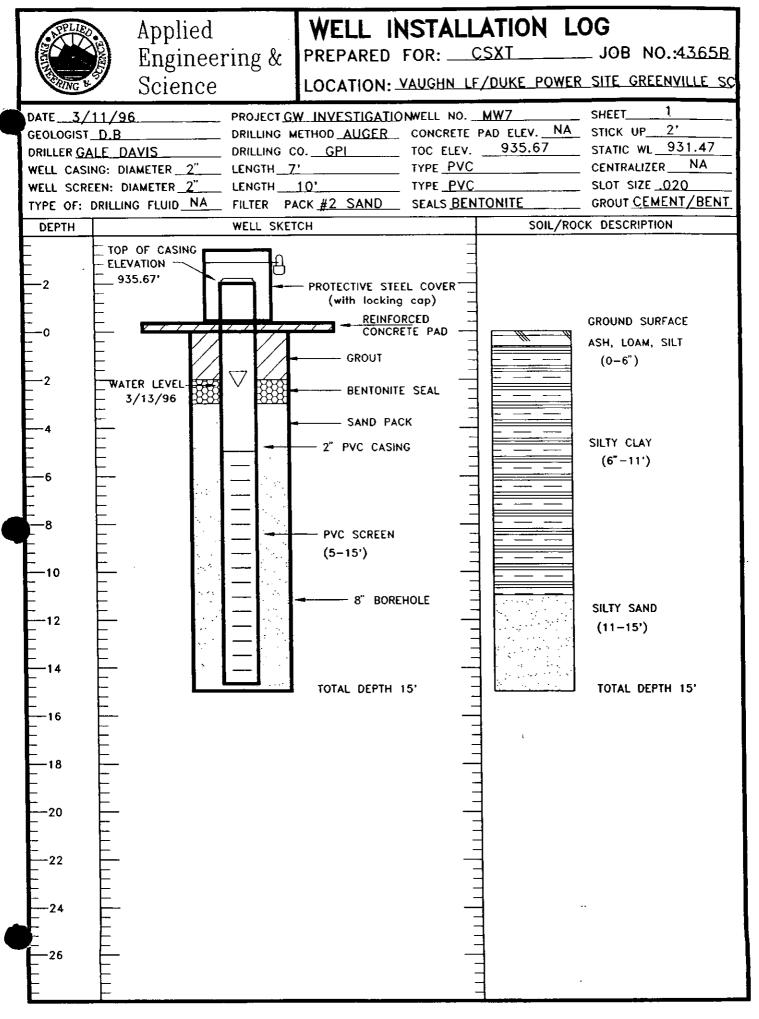






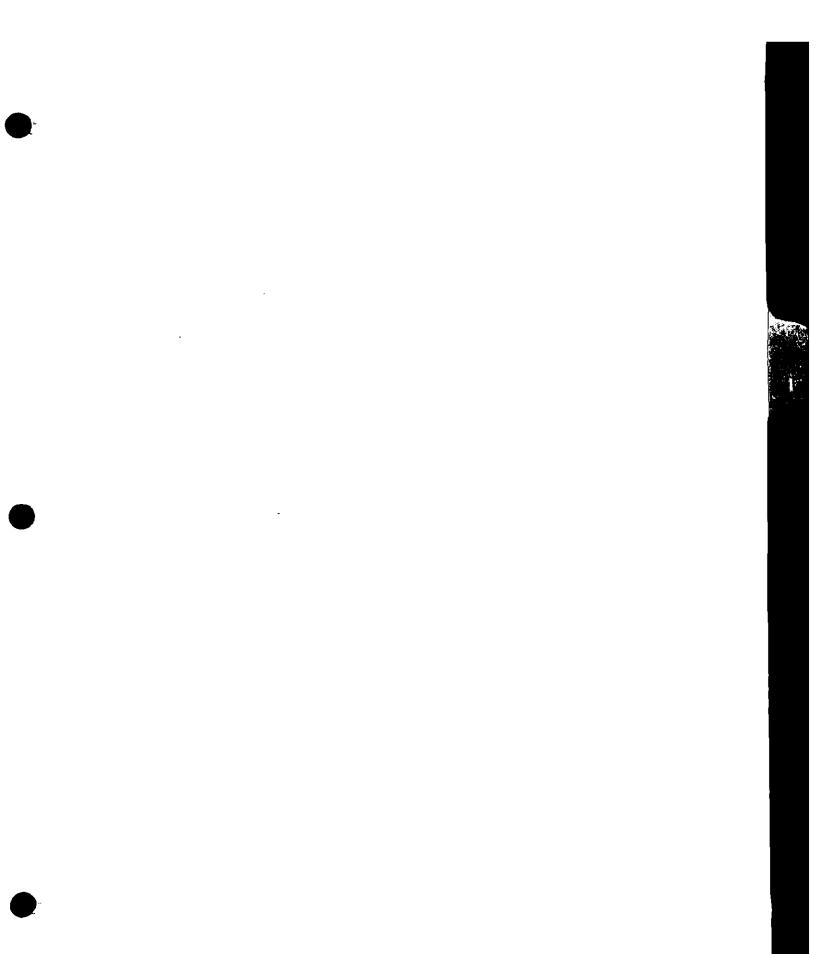






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# VAUGHN LANDFILL DUKE POWER SITE GREENVILLE, SC 4365 B

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FIELD / TRANSIT BOOK

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## INDEX

PHASE I SITE INVESTIGATION

MARCH/APRIL 1996

Property of <u>Applied Engineering</u> <u>and Science</u> Address <u>2261 Perimeter Park</u> Or. A+lanta, GA 30341 Telephone (070) 454-1810

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to dear part to loopede along dramage dutch trom Dute lower site Dute Jower site 1,00K louder north of Brambette needs to week site to quedues heavy equip. 1400 Rex Russell (Jak) on east. Evill recheck (Jac) on ist et the roder of at is hroping survey shows landted conserved property boundling. Freliminen Juneying), delineating cout Met surveyors (Carolina 1210 HEZ or 2146 its Ares off site for lunch avaulable soit. in buck of idnatill watered اامل Kichard w/ loader IC Russell (Jac) on site 1200 Butter on sete 00 - 100 13 / +/ 2 Clear 00.

3496 Began clearing bruch trees from back of former plant to allow Ceoprobe access Coal tar visible in shallow soil, cod tax odor apparent. Debris from plant including pipes, brick, concrete. Tanker truck rusting on site. Soils bare of vegetation along north central section of property. Appears to drawn surface water to back of 1600 Officite to buy locks for both gates to Duke Power site Stoppedat CSX office to tell employees of site work. 1700 Off site NOT USER

3/5/96 0730 Butler on site TEG onsite Danny Patterson Jason Butler tookphotographo of former a coal gasification plant TEG set up on DP1 to collect continuous soil samples and water sample. Location chosen at suspected rear of former plant Soil column 0-3' (recovery 24") O-6" dark ask, Toamy soil 6"-10" brown clay 10" - 18" brown gray sandy clay. 18"-24" gray silty clay moist 3-6" (recovery 10") gray silty clay strong coal tar odor throughout column Collect DP1 (0840) from gray silty day 3-6! Analyses VOC 8260 5000 8270

3/5/96 0915 Location DP2 52'S of DP1 50'N of fence 0-3 (recovery 18") 0-12" black ash, loam 12 - 3' gray silty sandy clay Famit odor in black material no odor in clay DP3 (0940) 50'E OF DPL 50'N of fence 0-3' (recovery 18") gray brown silty sand, some black coal specks, no odor Richard (JBS) on site. Begins clearing brush trees from DP site to allow Geoprobe access

3/5/96 DP4 (0950) 50'Nof DP3 50'E of DP1 0-3' (14" recovery) = silty sandy loam silty sandy clay; strong coal tar ödor 3-6' (32" recovery) silty sandy clay gray dark shiny coal tar in silty clay 2 5" [PHOTO] yellowish silty clay x 6' 6-9' (36" recovery) moist gray silty clay strong coal tar odor ; sheen 9-12' (6" recovery) Water @ 2 12' saprolite; muscouitemica weathered feldspare strong odor

3/5/96 DP5 25' Elast of DP4 (1100) 100 N of fence 0-4 loose concrete near surface (recovery 22') tan silty clay w/ black specks coal ture, strong coal tor odor DP6 (1125) 25 'East of DP5 100' Noffence 0-31 (recovery 16") dark silty clay w/ black coal fraquents ; moderate coal tar odor; greenish brown silty clay 2-3' slight odor 1140 AES and TEG off site tor lunch 1245 Back on site. Laure Morrisson (AES) on site 0P7 (1330) 25 'Eust of DP6 100' Not fence

3/5/96 DP7 0-3' (recovery 30") 0-18" dark ash loam, coal tar odor slight 18"- 3' brown silty clay, no odor DP8 (1340) 25'Sof 0P6 75 N of ferce 0-3 (16" recovery) coal tar dripping from shoe gray black silfy loan strong coalitar odor DP1/1415/ collected 2 40ml VOA using 0P9 1425 25's of 0P8 SO'E of OP3 0-3' (28" recovery) 0-6" dark silty loam 6"-10" red brick 10"-18" black silt (coal tar odor) 18-54 tan material (possible fire brick) 24- reddich brown silty clay nodor

3/51/96 3/5/96 DPIZ 50' WOF DP1 DP10 (1445) 30' N of OP6 50' N of DP 11 0-3' (20" recovery) at edge of concrete fundation ried brick Zfill. black why loam Smaterial 0-3' (26" recovery) gray brown silty clay moderate odor brown black rilty clay strong odor 3-6 (4" recovery) brick, Yellow silty clay black ash, loam fant odar 3-6 (36" recovery) 36-42"gray Tblack Silty Clay Strong odor 42"-72" green/gray silty clay moderate coal tur odor 6-9' black ash brick fragmate gray silty clay moderate coal tur odor, water @ 7' DP 11 (1530) 50'W OF DPL 50'N OF force DP13 50' NOF DP1 0-3' (22" recovery) 0-3 (BO"recovery) black loam, nov to black ash, slag no odor 3-6' (30" recovery) black ash, loam no odor gray brown clay no odor gray sitty clay i coal tar in interstices x 5-6 strong coal tar odor; water -----1730 AES, TEG offsile 

0930 Walked DPsik gate or ponde in southwest central area, No other outflow observed. Pondant due to ( Photor, drawing) No other inflow observed. Surfice the from prease, taking 0900 Butler and morrison on at southeast corner flows site flows west north west and ponds in north center of rite Over a fect days in center sites will attempt to trace 0700 Called TEC to cancel operation for today. Veather expected to be a for next two days will reacheave for next two buildup of debis along west west and exits at south possible contaminant pathways wednesday 3/6/96 heavy rain in flow from East gate outo of landfill south to Willard St where it turns 90° to west flows under rail lines and into Reedy 1030 Autler and morrision searched South of landfill for dutick visible in historic aerial photographs. Ditch is man made structure extending from southwest corner to the north, and possible discharge of GW. No thou pathway observed for dutik water to be carried for dutik water to be carried for north of Brankette Rive. Man dramage pathway Diffet west of OP site appears to be fed from durect precipitation, surface flow from the fill material of UPsite No out flow of water observed from site except How from surface run off from unors to south of Brankette. presentation fulling in that 1000 Walked along tence west 2.6 3/6 192 7 7 1

3/6/94 for floodplain surrounding landfill. Water level in dutch following heavy rains this morning msite is at @ 3'. No other outflow for floodplain observed. 1145 AES offsite 1630 Return to Aslanta to DP1 Nor . :...:

3/11/96 Clear 28° 0730 Butler on site 0810 GW Protection (GWP) Gale Davis Johnathan Do Revuend work plan, health and safety plan and CSX. RR safety procedures. Set up deconarea on land fill. Filled water teak from hose behind CSX office 0900 Set up on mw-7 at former DP site adjacent Collect, split spoon sample at 5-7 Sample OPLA collected from splitspoon at 0950 VOC + SVOC 1015 JBR on site, loader and dump truck, Will resume spreading available fill at LF. 1030 Curt Bennet (GWP) m site Licensed in SC

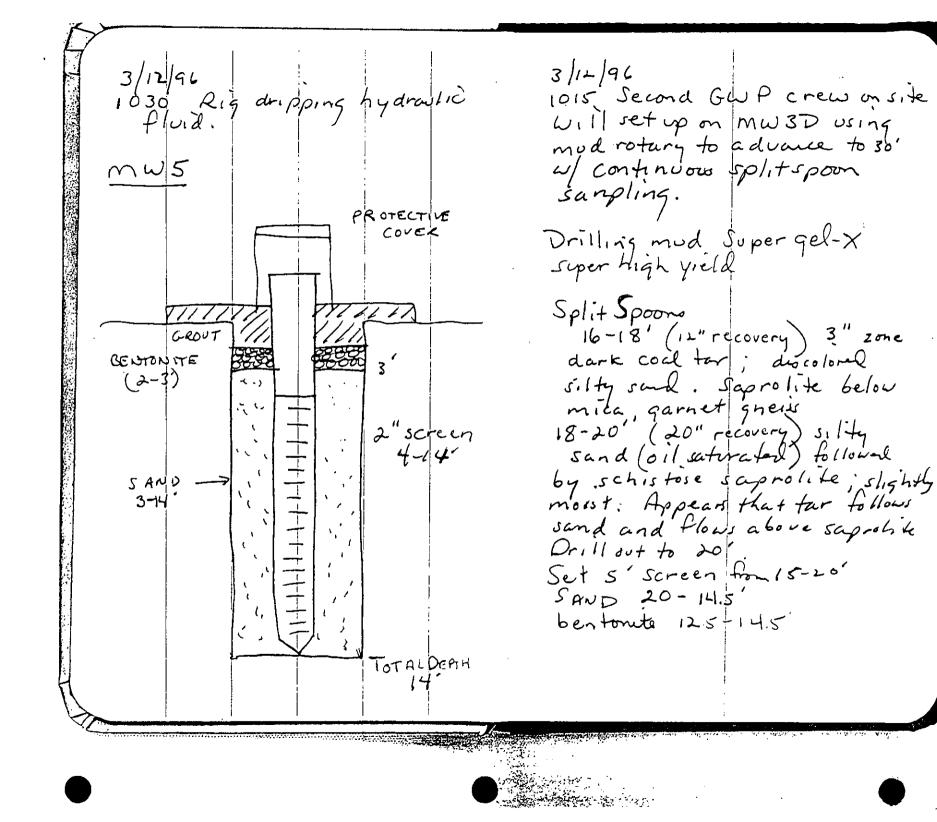
3/11/96 3/11/96 mw-7 PROTECTIVE 1100 Set yoon MW-1 at NE corner of LF. Auger through fill to native, soil GROUT 8' begin splitspoon sampling 8-10' silty clay 8-8.5' bentonite 10-12 + recovery silty sand micaceous sand, strong coal (2-3 screen 10' (5-15') tar odor. sand (3-15') Drill to 15' set well borchoile PROTECTIVE mw-1 GRAT (0-2 TOTAL Deprit 15' bentonite (2 - 3)sand (3-15') 2" Screen 10 (5-15' TOTAL DEPTA 15

10 Set up as Set up as Set up as angers. The wrapped around bit. Dirt and debris Clogging anger. Clean out and resume angering. to 10' Seal broken on rig coal tar odor. D + 1380 Break for lunch 1430 Back on site advance ment. 1, the spoor samples 4: greenist gray w/ to - 0 dor on *p*o odor and usible , L'F25. Aurer with augerslows. No remet. Withdraw 14" recovery) MW3D adjacut leale in dark ) native 43 т) \_\_\_\_\_ <u>6</u> 0 / tars bentoute 12.5-14.5' 5'screen 15-20' ME 30 1700 JBR offsite. Will return tomotrow and bring 20 loads clean fill to cover remainder of fill. GROUT 14/96 JBR dump truck broke fiel Sand 14.5-20 TOTAL DEITH 20' a casing PROTECTIVE 6" borchole 12 "borehol "9.71

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3/12/96 Clear 45° 0730 AES + GWP on site 1930 GWP deconning augens Dave Bytter / AES and other equipment. 1815 AES + GWP off site Curt Senson Gale Davis Johnathan Smith Shane GWP completing decon of augers Begin development of MW-7 Butler not fied CSX office of intentions to dril min 5 along tracks 0845 JBR on site Expecting clean soil full for armive after 9:00 back of land fill RR tracks SW of LF mw-5Auger to 5' split spoon to determine stratigraphy 5-7' (12" recovery) fill / loamy clay 7-9' (20" recovery) loamy clay \_\_\_\_\_ 9-11 (5"recovery) guartzmica sand, no oder, wet



32-4 35. mw-5 14 15m 40 gallon 3 2 4 4 36-MW-3D 1 hour 55 Ja llos 321 Wetr 312960by whale by whale pump 1 whale punce DEVELOPMENT There pump 50 gallon purpe al 2022 geneen s 3/12/72 Drive Jet up on MW3 Drive to 14' clay below hill ret 5' screen from 14-9 bentouto Sand 7-1 MC 3 GROUT I OTAL DEPTH 14 PROTECTIVE 6 borehole

3/12/96 3/14/96 1200 Breakfor linch PROTECTIVE COVER MW-2 1315 Backonsite Gup finishing mw 3 to 14 set 5'screen 9-14 NITTI GWP constructing pads on mw-1, mw-7 and mw-5 GROUT BENTONITE (よ-3') 1330 GWP set yoon MW2 6" borchole Auger to 5 Split spomo 5-7' (no recovery) 7-9' (24" recovery) red SCREEN. (5 - 15')silty clay, no odor SAND (3-15')9-11' gray green silty clay no jod 11-13' (20" recovery) silty TOTAL DEPTH 15' clay to 11. Clean silty same ' wet no odor, no visible tors.

3/12/96 3/12/96 MW-4 # 1515 Advanced mw-6 1600 Auger thous mu-4 to 7 feet by hand auger in the floodplain. material 8' Spilit spoons: 8-10' fill / green black clay coal tars, I trong odor 0-12" loamy clay no odor 12" 20" guarte sand no odor 10-12 1 green black clay coal tur, odor 20" 6' gray green s. 14g ckuy 6-7' gray sandy si, 17 no oder water in hole with 6"of Auger to 12' - Protective Cover surface. Set 5 2" puc es screen from 277 sand pack to GROUT BENTONITE 6". Bentonite seal at surface T+s'nser PVC SCREEN Bentonie-00 SAND -4 borehole 2" pvc Screen (by hand auger 2-7. 1 1 1 TOTAL DEPTH 12

1900 1730 Cup deconning equipment; Anishing pad at mul and developing Mulo Well labels put on all protective noo AES, GWP off site ₹.... \\_\_\_\_\_\_ -<u>n</u>Jwell. Sp. Cond = 0.67 ml/m 10.8 °C/m Analysis 0800, mw-7 [0815] collect water sample; no free product surface or tats in bottom of tevel in site i che Van Van Site Van Vanterson 3/13/96 01/57 VOC, SVOC <u>()</u>ear check water 30° <u>a 7</u>4. 

3/13/96 WATER LEVELS 7.12 mw1 (isio) S TOC MW2 [100] 10.3' 10.65 MW3 1425 10.55' MW3D114507 MW4 (1550) 4.65' MW5 (1720) 9.48' MW6 (1615) 11.0' mw7 [0730] 4.20'6toc -----

3/13/96 TEG Set up on DP 14 SEconar 50'W of fence 75'N of fence 0-3' (26" recovery) coarse gravel at surface folloved by coal tragments, red clay; greenick brown clay to 3' slight odor. Collect sample for lab analysis DP14 [09007 VOC SUOC OP15 [09207 100'N of OP14 50' W of Lince 0-3' (36" recovery) greenist brown clay, red mottling, no odor OP16 (0935) 50'N of QP15 25' W of Fence This area of property clear of regetation, coal tar vuible in surface soils; strong oder 0-3' (36" recovery) redduck brown mottled clay slight odor

3/13/96 3-6' (24" recovery) JBR breaks hydraulic line black coal fragments greenish brown silty clay (native) on loader; leaks into soil; will drum soll. Will have to take from ~ 4-6' no odor loader for repairs. DP 17 0955] DP19 50, Nof DP 13 0-3' (14" recovery) 50'NOF DP16 25' W of fince black coal ash, coal tor, greenish clay, strong 0-3 (30" recovery) odor 0-6"red brown clay 1115 TEG off site for lunch 6"-20" black loam, ach, tars 1130 Gordon Brown, former 20"- 30" gray brown clay moderale coal gas fication plant manager on site. Pointed out details of coal tur o'dor throughout column. former operations. Area at DP 18 NW corner [1020] 175'S of fence 50'E of fence north central portion of site w/ extreme coal tor contamination had overhead rail line where 0-3 (26" recovery) 0-6" reddich sandys. It fill coke was loaded for shipment. Said UST existed which held 6"-26" black gritty coal fragments no odor, no visible tar fueloul to heat plant near south side of property. 1150 Charles Briston onsite DHEC DP18 for lab analysis discussed progress. VOC, SUOC from soil 4-6

and the second 
3/13/96 3/13/94 1415 JBR backonsite with isist TEG back muite. loader. Will clear north end 1240 Bristow off site of land fill and cover debris 1300 Set upon NB1 NB = North of Bramlette  $\omega/soll$ but off Duke Power site. [1540] NB3 W of Sw corner NB1 [1305] 8'w of fine ~ 60'N of dutch of Duke Power site 6'w of time 10's of ditch NB3 Push through fill to 6' 0-3' (12"recovery) dark 6-9' (12" recovery) red clay fill, black loamy silty clay, slight coaf tar odor Goal fragments; no odor 9-12 (36" recovery) NB4 25'S of NB3 Coaltar 1600 TEG offsite gray silty sandy clay, slight coal far odor Sample NBI VOC, SUOC JBR clearing access to sampling locations at Duke Power site. havra morrison collecting water NB2 [1410] West of NB1 ~ 10'N from edge of dutch 0-B' (6" recovery) red samples from monitoring wells ' MW-3 [1425] 1.5' free product in well clay fill / concrete. Cond = 1.86 m 5/cmT = 17.3°c3-6' no recovery 6-9' no recovery pH = 6.5 9-12' no recovery 12-14' (12" recovery) quarts sands wet no odor in soulor water sample VOC, SUOC, sulfate

3/13/96 3/13/96 mw-6 [1615] ac 11.0' MW-3D [1450] WL 10.55' BTOL COND = 0.84 ms/cm Cond = 0.55 ms/cmPH = 6.5 PH = 6.5 product in well destinct coal tar o dor but no Analysis; VOC; SVOC, sulfate free product. Analysis VOC, SUOK, Sulfate MW-2 [007] WL - 10.3' CONO = 0.41 ms/cm mw 1 [1520] WL 7.12' BTOL T 2 13.3 C COND = 0.41 ms/cm 1 = 185°C PH = 6.0pH 2 6.0 mws [120] we 10.31 Analysis; voc, suoc, sulfate COND = 0. 47 mS/cmw-4 [1550] WC 4.65' P4 2 (.0 Cond : 0.19 T = 15.4°C pH = 65 bailod dry for development; 8 bailes . 1735 Pack samples for shopment 1830 AES offisite 1915 Drop samples at FEDEX office on Pelhan Rd Analysis'; VOC, SUOC NOT VIED Airbill # 5822882564 DT

3/14/96 DP22 25's offence 3/14/96 Clear 55° 0800 AES mis 1/k, (Butler, Morrism) TEC on site (Patterson, Windham) 57 E of RP13 0-3.5 (16" recovery) morrisson to collect surples from silty clay fill, slight odor ditch west of DP rite 3.5-7" (26" récovery). TEC set upon DP 20 in NN silty clay (mich nich) fill (slightodo) gray green silty clay at 6 corner of site. al coal tar , strong odor DP20 0-3' (32" recovery) D-1' red brown clay Gyll 7-10' (10" recovery ; wet) gray green silty clay w/ tar 1-2' black coal ash, trayment 2-32" brown silty clay; coal tar strong odor, assume ground water contaminated. odar OP23 14'S offere DP21 50'S of fince 57'W of OP 22 So'w of DP 20 39' N of DP 21 165' E of westfence 39'S of DP 23 0-3 (22" recovery). 0-3' (16" recovery) brown silty clay fill brown silty clay fill black coke, coal fragments black coke, coal frigments slight odor slight odor 3-6' (28" recovery) 3-6' (28" recovery) Black coRe coel fragments 6-9' (no recovery wet) gray stity day; some coal 9-14' (12" recovery wet) sandy silt; sand slight odar tar in intersitice, shaht odor no visible tar

and a second 
3/14/96 DP24 68' S of DP21 0-3' (18" recovery) clay fill black coke, coal fragments coal tar, strong odor DP25 in NE corner of property 7 w of femce 0-3' ( 30" recovery) brown - black loam brown silty clay no oder gray silty clay no oder Tanker Soay in D.P.s.te I den tification faint MA.P.C. No. 88(3) much of tanker coated a far. Open port : invide has brick other debris ; no liquid visible 1200 AES off site for lunch TEG offisite 1330 AES on vite Spoke u/ Dixle Metal on

W. Washington St. about taking. steel girders from I and fill. Will acceptsteel if we can move it there. Salvage yard cannot take ton bortuke Sample DP16 field characterized Using ENJSYS PAH Kit Results & Ippm will send to lab for verification Analysiv VOC, STUDC REEDY 1 (1440) surface waster sample collected from the Reedy River north of the Brankette Roud bridge [PHOTO] to be used as background sample. succ REEDY 2 [1500] surface waster sample collected from the Reedy River north of the Willard Struct bridge and downstream of the outlet which carries surface flow from the flood plain / land fill under the RR tractos and into the river. [PHOTO] Analysis VOC, SUDC

3/14/96

(Viastan Asht ) Analysis Voc, Svoc WD = Willard Ditch r Q 3 flood to l entering Poin that dutit Willard St. this day Villard Dita Anak 3/14/ 1515 [1530] FD = Floodplan Butch che suttice water stanp to the plan dutic before it soint with 10451)7 2002 + Janole 2 101 ters dutics rac Juan de tex E los op lan Houd colliected surface Q I -77 Street and 2 Sanon terns le en alun. ちょう Sheen रे स Sort Place. 2 floods which 1620 JOR Richard ms. te. ron loader fill 5.00 to land fill surfice 600 lequel fince on site repo time. 1615 Off site 3/14/96 abelad all driv mr. ц О the second s REEDY RIVER . . . . É Q H . : . . <u>()</u> clear

3/14/96 3/15/96 Pack samples 0815 AESON sille Butter Morrisin Ship FEDEX Arrbill # 5822882531 0830 JBR on site Will excavate 1 FOLY to assess 1700 AES offsite fill materials for metals contamment LFOL4 Fill: bricky, soil; at 28 four Piping drum (crushed) and intact fuel tank (small < 10 gall) removed from fill; collected soil 550 sample from clays below fill material LF\$\$24-2 [0930] Analyses, RCRA metals, voc. svoc. morrisson collecting floodplain samples to delineate coulton extent west of landfill. 0950 JBR flat bad truck on site to assist in moving drums, soil, steel girdens. 1030 Collected water sample from q as tank fand at LF \$ \$24 GTANK1 analysis VOC

3/15/91 3/15/96 from back (southend) of landfill 1130 Removed steel gurdens from and staged next to tanker east floodplan. Transportel to Dixie Iron + Metal Co. on truck. Fuel oil tout is punctured; W. Washington St. material at puncture smells 1115 WW (D: sedement sample from floodplain what of the like hel oil reviduals. land fill analysis VOC, SVOC JBR continues to clear north end of landfill WW12: (1145) sediment varple 1400 Ran begins lightning. 1430 JBR offsite in floodplain west Analyses VOC, SUDC AES off site WWII [1200] sedimer sample in 1230 Retern to Atlanta floodplan west Analyser VOC, SUOC 1210 JBR has completed moving USED all drummed development water Not and drill: cuttings to staying point on land fill 1215 Break for lunch 1330 Back on site 1345. JBR moves Deloil tank

Mistes Ats alt of 1 5 horas 4 Gra E hard - 6012 WWIL (aut) Flay 2 (duta) 114 pupping , ' quind building 1100 Controvers survey; wells! Floodplow s weer 1 + 30 Back on site 1312- Break for imed appears to they are top at rock Coal ter visible on probe in NW3D 1010 Begin surrey 1000 Kin Kilpatrick/ AES on ,02'h 0160 Ppp Lmm 5560 9 mm , 70'11 · E1/E fo ,09.8 orbo smu solly then hydrouled leak h mw removed pleater and stand ,01.01 STO STO STO ,59.01,58.57-71,58 ,94.01 MY 2055 1715 20 5050 01750 5 MW 100 jutrons 0560 CMW elequitions, and sampling some MMI 0932 0 Mell +1me brocmet , モノ・ト survised width locations and water of i stire on site , to · mater/product levels 3/26/91 21/200 200 76/927 8.

3/27/96 Overcat 50° 3/27/96 10'45 DP19 collected surface 0900 AES on site to surple sample from grea of no. sould at DP site. regetation, strong coal tar odor, visible coal tarin 0945 DP26 25' woffence Handauger to 12"; no visible Soil at NE central sector NOC, SUOC 90'W of DP17 Sof 0P27 tar, no odor, wakrin hole at 10" المستعدية المستعد المستعد المستعد 1105 DP9; returned to DP9 -> VOC, SUOC site to collect have auger sample for verification 1000 DP27 50'W of DP26 -> SVOC, VOC hand auger to 12" water just belows wr face (1") soil Collect samples DP+3 loam, clay, same, faint o dor. 1210 DP 23 Hand auger to ... 6. in sandy chay, no odor 1015 DP28 50'W of DP27  $\rightarrow$  VOC, s'voc' 72's of ferce Land auger to 14", water Ditch in NE corner of at (1") loam, clayey sand, DP site starts at a Washington sand faint odor St. 43 South of fence corger -> VOC, SUOC Plows west into DP site to center, low area; no exit P HOTOS -----

and the second second and the second 
4/17/96 Clear: 65° 3/27 1230 3 Tanks Altor UST DP site 8' X 3.5'. Slightly crushed w/ holes; no ligutly visible, no odors (PHOTOS) 09:45 Butler on site. Met w] marvin Webster / ECA to discuss biological survey in wetland. Examined propried sample locastions. Use existing sample data where possible. One additional location needs Tanker Hruck; name sample collected. Will return visible on side. to collect rample within 2 weeks. "ASSOCIATED PETRICLEUM CARRIERS, SPARTANBURG SC 1 DUKE POWERSHE 1300 AES off site NOT SSER X NBS  $\leq$ F Branlette Rel ) discharge 1 80 CSXT PRORERTY LF

|  |  |  |  | No 13 from edge of fill | present in clay soil | undaries and | NW13 collected at | Plot<br>S | 1 at brong       | 2 |  |
|--|--|--|--|-------------------------|----------------------|--------------|-------------------|-----------|------------------|---|--|
|  |  |  |  | Gromedge of first       |                      |              | sanoly            |           | sanple<br>sanple |   |  |

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