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State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

August 7, 1997

Mr. Phil Vorsatz
NC Site Management Section Chief
EPA Region IV Waste Division
100 Alabama Street, 11th Floor
Atlanta, Georgia 30303

RE: Preliminary Assessment/Site Inspection Report
Triple Plating Inc., NCD 982 115 370
Thomasville, Davidson County, North Carolina

Dear Mr. Vorsatz:

Enclosed herewith is the Preliminary Assessment/Site Inspection (PA/SI) Report by the North Carolina Superfund Section for Triple Plating Inc., NCD 982 115 370, Thomasville, Davidson County, North Carolina. The NC Superfund Section has already requested a removal action for the site to address the direct contact hazard, particularly to the children and other residents at 3 Fischer Ferry Street. However, for purposes of site remedial prioritization, **and contingent on successful completion of a removal action**, the NC Superfund Section recommends that this site receive no further federal remedial action.

The immediate vicinity of the site is residential. The facility was used for plating metal products of hardware used in the furniture industry such as hinges, knobs, table stands, etc. The Triple Plating facility had been in operation for approximately fifteen years before the company declared bankruptcy on July 17, 1991. Triple Plating began its operations in 1974 by owner and president Robert E. Gaddy. He leased the property from Ms. Perry from 1974 until 1991. The owner of the property, Ms. Bertha Perry, leased the residence (3 Fisher Ferry Street) to Ms. Lee Kenney of Thomasville. Ms. Kenney has lived next to the Triple Plating operation for several years. Ms. Kenney has installed a swing set on site for her eight grandchildren, who she takes care of five days a week, 8-9 hours a day. The children play and have complete access to the Triple Plating property that is now abandoned. The NC Superfund Section was most concerned about this obvious direct contact threat, particularly to the on-site residents and neighboring children.

On April 30, 1997, the Superfund Section collected samples at the Triple Plating facility. Seventeen environmental samples were collected from the site during the Preliminary Assessment

and Site Investigation. Surface water, sediment, and soil samples were collected and analyzed for volatiles, semi-volatiles, PCBs, metals, and cyanide. Highly contaminated soil and pure product left on site in the sump areas may continue to release to the soil pathway and may pose a threat to human health and the environment. A swing set has been installed on site for children to play. Children play and have complete access to the Triple Plating property that is now abandoned and is under CERCLA jurisdiction. Samples collected from beneath the swing set area show that soil beneath the swing set contains lead at 570 mg/kg, levels greater than state and federal clean-up standards. The NC Superfund Section notified the Davidson County Health Department which has made arrangements for blood lead tests for the children in question. The NC Superfund Section has also requested a removal action from the U.S. EPA Emergency Response and Removal Branch for the Triple Plating property based on the soil exposure hazard.

Regarding remedial site prioritization, the presence of metals, PCBs, PAHs, and solvents in the sump areas indicate a probable route of migration to the groundwater and surface water pathways. The analytical results from the sediment samples collected by the NC Superfund Section indicate a release to surface water pathway #1 (wetland). Detected levels of site-related constituents are found within the sediments of the wetland. A release to the target wetland is only applicable to surface water sediments and not to the surface water itself. The analytical results indicate elevated levels of PCBs, PAHs, solvents, arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc in the soil pathway, as well as fluoranthene, pyrene, phenanthrene, and bis(2-ethylhexyl)phthalate, lead, and copper in the sediment within a wetland. No contaminants were detected in North Hamby Creek, surface water pathway #2. Groundwater was not sampled because of the apparent lack of wells in the vicinity of the site.

As stated previously, the NC Superfund Section recommends no further remedial action, **contingent upon a successful completion of a removal action**. If you have any questions, please contact me at (919) 733-2801.

Sincerely,

Bruce Nichols for

Stephanie L. Kozel
Hydrogeologist
Special Remediation Branch
NC Superfund Section

enclosure

STATE OF NORTH CAROLINA

Department of Environment, Health, and Natural Resources
Division of Waste Management
Superfund Section

PRELIMINARY ASSESSMENT / SITE INSPECTION

Triple Plating
NCD 982 115 370
Thomasville, Davidson County, North Carolina
Reference No. 06612

August 1997

Stephanie Kozel
Hydrogeologist
Division of Waste Management
Superfund Section

PRELIMINARY ASSESSMENT / SITE INSPECTION

Triple Plating
NCD 982 115 370
Thomasville, Davidson County, North Carolina

August 1997

Superfund Section
Division of Waste Management
North Carolina Department of Environment, Health and Natural Resources

Prepared by:
Stephanie Kozel
Stephanie Kozel
Hydrogeologist

Reviewed by:
Bruce Nicholson
Bruce Nicholson, Head
Special Remediation Branch

TABLE OF CONTENTS

EXECUTIVE SUMMARY

1.0 INTRODUCTION 1

2.0 SITE DESCRIPTION 1
- 2.1 Location 1
- 2.2 Site Description and Regulatory History 1
- 2.3 Operational History and Waste Characteristics 5

3.0 WASTE / SOURCE SAMPLING 6
- 3.1 Sample Locations 6
- 3.2 Analytical Results 6
- 3.3 Conclusions 6

4.0 GROUNDWATER PATHWAY 9
- 4.1 Hydrogeology 9
- 4.2 Groundwater Targets 9
- 4.3 Sampling Locations 10
- 4.4 Conclusions 10

5.0 SURFACE WATER PATHWAY 10
- 5.1 Hydrologic Setting 10
- 5.2 Surface Water Targets 10
- 5.3 Sample Locations 12
- 5.4 Analytical Results 12
- 5.5 Conclusions 12

6.0 SOIL EXPOSURE AND AIR PATHWAY 14
- 6.1 Physical Conditions 14
- 6.2 Soil and Air Targets 14
- 6.3 Soil Sample Locations 14
- 6.4 Soil Analytical Results 15
- 6.5 Soil Exposure Pathway Conclusions 15

7.0 SUMMARY AND CONCLUSIONS 15

PHOTOGRAPHS A

PHOTOGRAPHS B

APPENDIX-LAB DATA

REFERENCES

LIST OF TABLES

Table 1. Summary of the Soil Sampling data from April 29, 1997 8

Table 2. Population Using Groundwater as a Source of Potable Water Within 4 Miles of the Triple Plating Site 9

Table 3. Summary of the Surface Water and Sediment Sampling data from April 29, 1997 13

Table 4. Population Estimate within 4-Miles of the Site 15

LIST OF FIGURES

Figure 1 Four-Mile Radius Topographic and Sensitive Environments Map 2

Figure 2 Map of the Triple Plating Facility and Surrounding Area 3

Figure 3 Sampling Locations Map 6

Figure 4 Surface Water Pathway Map 7

EXECUTIVE SUMMARY

The Triple Plating facility (site), NCD 982 115 370, is located at 27 West Main Street, Thomasville, Davidson County, North Carolina. The immediate vicinity of the site is residential. The facility was used for plating metal products of hardware used in the furniture industry such as hinges, knobs, table stands, etc. The Triple Plating facility had been in operation for approximately fifteen years before the company declared bankruptcy on July 17, 1991.

Triple Plating began its operations in 1974 by owner and president Robert E. Gaddy. He leased the property from Ms. Perry from 1974 until 1991. The owner of the property, Ms. Bertha Perry, leased the residence (3 Fisher Ferry Street) to Ms. Lee Kenney of Thomasville. Ms. Kenney has lived next to the Triple Plating operation for several years. Ms. Kenney has installed a swing set onsite for her eight grandchildren, who she takes care of five days a week, 8-9 hours a day. The children play and have complete access to the Triple Plating property that is now abandoned. The NC Superfund Section was most concerned about this obvious direct contact threat, particularly to the onsite residents and neighboring children. The site is not fenced and children regularly play on the concrete foundation of the former facility. The people residing onsite, as well as visitors, drive through the site to park their vehicles.

On April 30, 1997, the Superfund Section collected samples at the Triple Plating facility. Seventeen environmental samples were collected from the site during the Preliminary Assessment and Site Investigation. Surface water, sediment, and soil samples were collected and analyzed for volatiles, semi-volatiles, PCBs, metals, and cyanide. Three onsite samples were collected from the three sump-like areas. These areas were possible waste source areas, as well as a direct conduits to soil, groundwater, and surface water contamination. The three samples were analyzed for volatiles, semi-volatiles, and metals, as well as for cyanide. High levels of solvents, PCBs, and PAHs were detected in the soil samples from the three sump areas (TP-002-SL, TP-003-SL, and TP-006-SL) and may indicate source material remaining onsite. Highly contaminated soil and pure product left onsite in the sump areas may continue to release to the soil pathway and may pose a threat to human health and the environment. A swing set has been installed on site for children to play. Children play and have complete access to the Triple Plating property that is now abandoned and is under CERCLA jurisdiction. Samples collected from beneath the swing set area (TP-005-SL) show that soil beneath the swing set contains lead at 570 mg/kg, levels greater than state and federal clean-up standards. The NC Superfund Section has requested a removal action for the Triple Plating property based on soil exposure. Furthermore, the presence of metals, PCBs, PAHs, and solvents in the sump areas (TP-002-SL, TP-003-SL, TP-006-SL) indicate a probable route of migration to the groundwater and surface water pathways.

Triple Plating's waste disposal practices included off-site shipping of waste, off-site landfill disposal, and storage on site in drums, tanks, and boxes, several of which were unsuitable for hazardous waste storage. One dumping event was supposedly reported to the Hazardous Waste Section within the last year by Ms. Kenney, the on-site resident. The site has two Probable Points of Entry (PPE) and surface water pathways. The first pathway is a wetland within the intermittent creek. This wetland is not contiguous to the perennial surface water pathway and thus, this pathway

begins and ends with this isolated wetland. The second pathway is the 15-mile surface water pathway, that begins at the perennial surface water body south of the site (PPE #2). The Probable Point of Entry #1 (PPE #1) begins where the culvert draining the site empties into the intermittent creek surrounded by wetlands. The culvert is a direct conduit for contaminants from the site to PPE #1 at the wetland, approximately 300 feet from the site. The analytical results from the sediment samples collected by the NC Superfund Section indicate a release to surface water pathway #1 (wetland). Detected levels of site-related constituents are found within the sediments of the wetland. A release to the target wetland is only applicable to surface water sediments and not to the surface water itself.

The analytical results indicate elevated levels of PCBs, PAHs, solvents, arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc in the soil pathway, as well as fluoranthene, pyrene, phenanthrene, and bis(2-ethylhexyl)phthalate, lead, and copper in the sediment within a wetland. No contaminants were detected in North Hamby Creek, surface water pathway #2. Groundwater was not sampled because of the apparent lack of wells in the vicinity of the site.

The NC Superfund Section has already requested a removal action from the U.S. EPA Emergency Response and Removal Branch for the site to address the direct contact hazard, particularly to the children and other residents at 3 Fischer Ferry Street. However, for purposes of site remedial prioritization, **and contingent on successful completion of a removal action,** the NC Superfund Section recommends that this site receive no further federal remedial action.

1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the Superfund Amendments and Reauthorization Act of 1986 (SARA), and a cooperative agreement with the United States Environmental Protection Agency (US EPA), Waste Management Division, Region IV, the North Carolina Superfund Section conducted a Preliminary Assessment/Site Inspection (PA/SI) at the Triple Plating facility site in Thomasville, Davidson County, North Carolina. The purpose of the PA/SI was to obtain the data necessary to assess the threat posed by the site to human health and the environment and to complete a Hazard Ranking System (HRS) score for the site to determine the need for further action under CERCLA/SARA or other authority. This investigation included reviewing existing files and sample data, conducting soil, surface water, and sediment sampling under EPA Contract Laboratory Program (CLP) protocol and collecting additional data needed to document HRS factors.

2.0 SITE DESCRIPTION

2.1 Location

The Triple Plating facility (site), NCD 982 115 370, is located at 27 West Main Street, Thomasville, Davidson County, North Carolina. The site is surrounded by West Main to the north, Colonial Street to the south, Mock Street to the east, and Fischer Ferry Street to the west. Railroad tracks north of the site, across W. Main Street, are still used by Thomasville industries and railroad tracks south of the site are abandoned (Figure 1, Reference 3). The site is located at 35°52'53" north latitude and 80°04'02" west longitude (Reference 4). The site is located presently at the corner of West Main Street and Fischer Ferry Street (Figure 2, Reference 3). The immediate vicinity of the site is residential.

2.2 Site Description and Regulatory History

From 1974 to 1995, the Triple Plating facility was located on the corner of West Main Street and Fisher Ferry Street. The building was demolished in August 1995, and all that remains on the lot is the concrete foundation (Reference 5). The property is located on a topographic high and drains south, via a culvert, into a ditch surrounded by wetlands. The drainage ditch continues until it flows into North Hamby Creek, the main perennial surface water body. The closest residence is on the Triple Plating property and is connected to the city municipal water supply. There are no surface water intakes along the 15-mile surface water pathway. The City of Thomasville's surface water intakes are on Tom-A-Lex Lake, upstream of the site, and on High Rock Lake, 30 miles downstream of the site (Reference 6).

From to August 1913 until July 1923, the property was occupied by a garage and auto repair store with an office and sales room facing Main Street (Reference 7). In September of 1930, the garage and auto repair store expanded, moving the office area to a separate building adjacent to the garage and converting the former office area to a tin shop. The garage and auto repair store was in business until it was sold to Stroupe Mirror Company in 1931. Stroupe Mirror Co. added onto the remaining buildings with an additional glass house, crating room, boiler house, sign painting building, and acid room. A home was built adjacent to Stroupe Mirror Company but on the same parcel of land (3 Fisher Ferry Street). The adjacent property east of the site was once occupied by the Mock Street Hotel until sometime after 1944 (Reference 7). Currently, The Sandwich Shop is adjacent to the property but is closed for renovations.

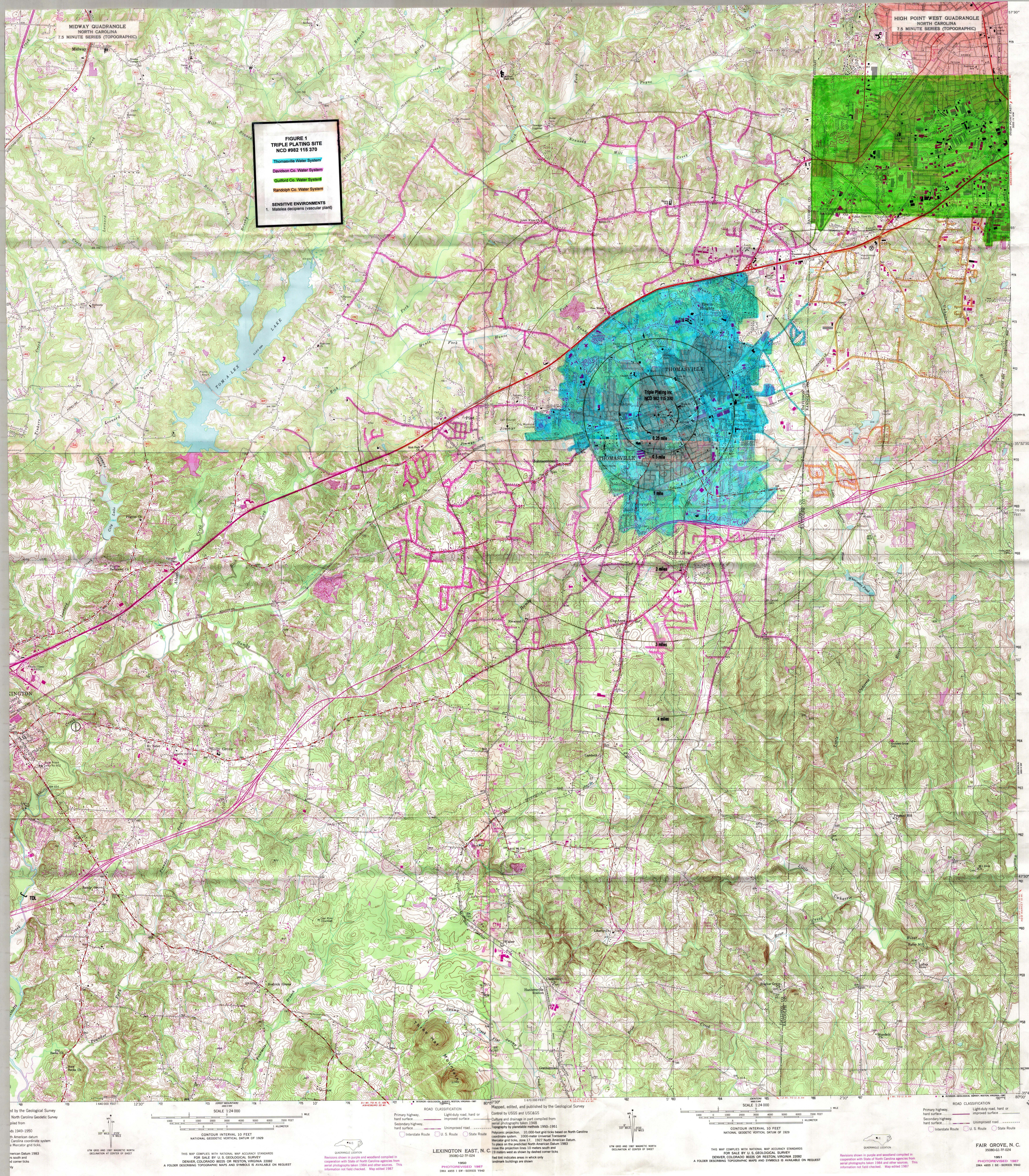
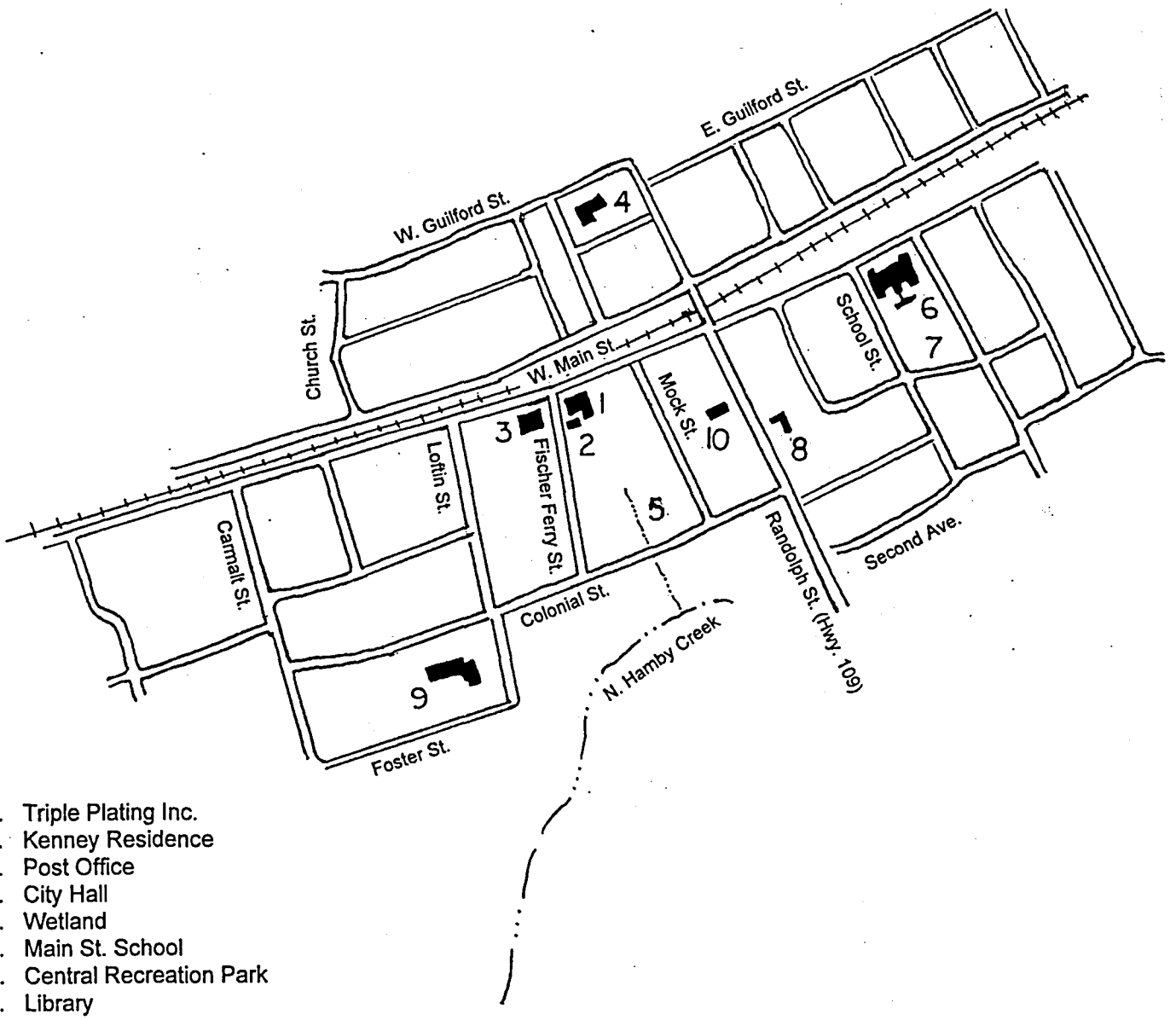


FIGURE 1
TRIPLE PLATING SITE
NCD #982 115 370
Thomasville Water System
Davidson Co. Water System
Guilford Co. Water System
Randolph Co. Water System
SENSITIVE ENVIRONMENTS
1. Matelea decipiens (vascular plant)
MIDWAY QUADRANGLE
NORTH CAROLINA
7.5 MINUTE SERIES (TOPOGRAPHIC)
HIGH POINT WEST QUADRANGLE
NORTH CAROLINA
7.5 MINUTE SERIES (TOPOGRAPHIC)
Triple Plating Inc.
NCD 982 115 370
0.25 mile
0.5 mile
1 mile
2 miles
3 miles
4 miles
THOMASVILLE
Fair Grove
TOM-A-LEX LAKE
Three Hat Mountain
SCALE 1:24 000
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225 OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
ROAD CLASSIFICATION
Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route
QUADRANGLE LOCATION
Revisions shown in purple and woodland compiled in cooperation with State of North Carolina agencies from aerial photographs taken 1984 and other sources. This information not field checked. Map edited 1987
LEXINGTON EAST, N. C.
35080-G2-TF-024
1950
PHOTOREVISED 1987
DMA 4955 I SW–SERIES V842
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Culture and drainage in part compiled from aerial photographs taken 1948
Topography by planetable methods 1950–1951
Polyconic projection. 10,000-foot grid ticks based on North Carolina coordinate system. 1000-meter Universal Transverse Mercator grid ticks, zone 17. 1927 North American Datum.
To place on the predicted North American Datum 1983 move the projection lines 10 meters south and 19 meters west as shown by dashed corner ticks
Red tint indicates areas in which only landmark buildings are shown
UTM GRID AND 1987 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
FAIR GROVE, N. C.
35080-G1-TF-024
1951
PHOTOREVISED 1987
DMA 4955 I SE–SERIES V842



1. Triple Plating Inc.
2. Kenney Residence
3. Post Office
4. City Hall
5. Wetland
6. Main St. School
7. Central Recreation Park
8. Library
9. Colonial School
10. Civic Center

Fig. No: 2	Title: Map of the Triple Plating Facility and Surrounding Thomasville Area		
North Carolina Division of Waste Management	Scale:Not to Scale	Date: July 23, 1997	Drawn By: S. Kozel
Superfund Section	Site Name: Triple Plating Inc.		NCD 982 115 370

Prior to Triple Plating, the site was occupied by Stroupe Mirror Company. Stroupe Mirror has manufactured mirrors for Thomasville's furniture industries since 1931 and is still an active mirror producer. Stroupe Mirror produces plated mirrors in a two steps process. First, the cleaned glass blanks are initially plated with silver by the precipitation of a silver nitrate solution. Once the silver is applied, the mirror backing is sprayed with black paint (Reference 8). Chemical used and waste generated are silver, silver nitrate, stannous chloride, and acid (Reference 8). Currently, Stroupe Mirror is a small quantity generator and produces wastes, such as n-butyl acetate (paint thinner), propyl acetate (glass cleaner), mirror cullet, and paint solids (Reference 8). The wastes are either reused, shipped off site to be recycled, or shipped to a lined landfill. In 1930, Mrs. Stroupe, mother of Robert Stroupe (current president), bought a portion of the property on 27 West Main Street from the car dealership/repair shop. The rest of the property was sold to Mr. Privo of Thomasville, NC. Upon the death of Mrs. Stroupe in 1971, the property was sold to Mr. Privo. He leased the property to Stroupe Mirror until the company relocated in 1971 (Reference 8). Mr. Privo then sold the property through a realtor to the current owner, Ms. Bertha Perry of High Point, NC, in 1972 or 1973 (Reference 9).

Ms. Perry leased the property to Mr. Robert E. Gaddy, president and owner of Triple Plating, from 1974 to 1991 (Reference 9). The facility was used for plating metal products of hardware used in the furniture industry such as hinges, knobs, table stands, etc. The Triple Plating facility had been in operation for approximately fifteen years before the company declared bankruptcy on July 17, 1991.

Triple Plating began its operations in 1974 by owner and president Robert E. Gaddy. He leased the property from Ms. Perry from 1974 until 1991. Triple Plating received an EPA RCRA ID number for being a small quantity generator until 1987 when a hazardous waste survey was conducted by the Winston-Salem Hazardous Waste Section on June 19, 1987 (Reference 10). From 1987 to 1990, annual surveys were conducted by the Winston-Salem Hazardous Waste Section at the Triple Plating facility. Then in January 1991, Triple Plating received an Imminent Hazardous Notice of Violation (NOV) for noncompliance and subsequently was ordered by the Hazardous Waste Section to comply with all North Carolina Hazardous Waste Management Rules (Reference 11). Since 1991, several sampling events have occurred on site. Drums, tanks, sumps, and debris were sampled when these materials were left on site in an enclosed, abandoned building. In early 1991, the Thomasville Fire Marshall, Mr. David Smoot, notified the Hazardous Waste Section concerning the storage of electroplating chemicals in tanks and improper containers (Reference 12). The facility had been inactive since November 1990. Ms. Perry assumed responsibility of the property and the buildings, and therefore funded some of the clean-up. With the coordination of the State of North Carolina and Ms. Perry, YWC Technologies Inc. were contracted to complete decontamination of the building, sample the solid and hazardous material, and remove all debris during the months of July and August, 1992 (Reference 13). YWC Technologies Inc. first characterized the abandoned site and stated that numerous tanks used in the operations had been left inside the abandoned building. Four tanks containing cyanide solutions were located in the original area of the plating line. Filters for the nickel plating operation remained in the area of the former nickel tanks. Waste treatment equipment consisting of tanks, a plate and frame filter press, associated pumps and plumbing were present. Debris, wood, dirt, containers, metal parts and various equipment were scattered throughout the site. A shed outside the building contained miscellaneous flammable and combustible products used in the painting operations. Drums and containers were also located outside of the building on the loading dock and on wooded pallets behind the building. During the removal and decontamination event, several wastes were identified as US EPA Hazardous Wastes D004 (Arsenic), D005 (Barium), D006 (Cadmium), D007 (Chromium), D008 (Lead), D009 (Mercury), D010 (Selenium), D011 (Silver), and P030 (Cyanide) (Reference 14). These wastes were to be

disposed of by Chemical Waste Management, Inc. and shipped to a hazardous waste landfill in Emelle, Alabama (Reference 15).

In October 1992, after the decontamination of the building, 8,000 gallons of wastewater containing elevated levels of electroplating waste (nickel, chromium, and cyanide) were unable to be discharged into the Thomasville Waste Treatment Facility. Due to the high cost of disposal, the Hazardous Waste Section of the Winston-Salem regional office of DEHNR authorized the reduction in volume of wastewater could safely and effectively be accomplished by heating the water with a steam coil (Reference 16). The concept was to reduce the volume of water by boiling or steaming away as much of the water as possible, leaving behind the contaminants. This process was carried out by Mr. Gaddy. The wastewater was reduced to 300 gallons, and was left on site until it was removed in December 1995. Due to the bankruptcy of Triple Plating and Mr. Gaddy, as well as the lack of additional funding from the owner of the property, Ms. Perry, an emergency removal by the Hazardous Waste Section occurred in 1995 to remove and dispose of several drums left on site (Reference 17). In August 1995, Ms. Perry had the building demolished because it had been condemned by the City of Thomasville (Reference 18).

Based on sampling results found during this investigation, the NC Superfund Section has requested a removal action (dated July 17, 1997) for on and off site soils which may pose a contact threat to nearby residents. A more detailed discussion for this removal can be found in Section 6.2 and 6.5 of this report.

2.3 Operational History and Waste Characteristics

The facility was used for plating metal products of hardware used in the furniture industry such as hinges, knobs, table stands, etc. Electroplating is a surface treatment, in which the substrate is made to look like a metallic surface. Operations of electroplating include the cleaning, rinsing, plating, and post-plating treatments. The first step of the process is the conditioning of the surface, before the electroplate can be deposited. Organic solvents, such as perchloroethylene, trichloroethylene, methylene chloride etc., are used to dissolve most oils and grease (Reference 19). Alkaline cleaning generally follows organic cleaning, and may include silicate, phosphate, carbonate, or hydroxide. After the part has been cleaned, it must be rinsed and then acid dipped. The acid dip removes tarnish or oxide films formed during the cleaning process and neutralizes the alkaline film, which rinsing could not remove (Reference 19). The acid used in the dip is usually 10-30 volume percent solution of hydrochloric or sulfuric acid. Once the part is dipped and cleaned in acid, some substrates, such as aluminum, magnesium, refractory metals, and nonconducting materials, may need special treatment before electroplating. Parts are then hung in the plating tank on wires or racks, or when many small parts are to be plated, they may be contained in wire baskets that rotate in the plating tank (Reference 19). Plating baths are used for different plating materials, such as cadmium, chromium, copper, nickel, silver, etc. Triple Plating used mostly nickel cyanide, copper cyanide, brass, and chromium in its operations, as seen from the pictures taken by the Hazardous Waste Section on May 13, 1992 (Photograph A).

Many of the cleaning, dipping, and plating steps evolve fumes, spray, and sludge. As noted from the Hazardous Waste Sections surveys, Triple Plating produced waste with concentrated levels of cyanide, nickel, chromium, brass, and copper. Waste was stored improperly in six of the plating tanks, cardboard boxes, and drums after the abandonment of the building. On January 16, 1991, electroplating holding tanks were sampled and contained 72,000 ppm nickel, 22,400 ppm copper, 16,800 ppm chromium, and 2.8% cyanide (Appendix A).

3.0 WASTE/SOURCE SAMPLING

3.1 Sample Locations

A previous investigation by the Hazardous Waste Section, Winston-Salem Office, was conducted on January 16, 1991 to assess waste material stored illegally on site in drums, tanks, and boxes (Reference 12). Twenty-eight electroplating processing tanks, ten 55-gallon drums and 5 drums of hazardous waste cake sludge were stored inside the facility, as well as filter cake sludge stored in cardboard boxes and sludge laying on top of a pallets covered with cardboard. The Hazardous Waste Section sampled the cardboard storage boxes and six of the electroplating tanks. The processing tanks contained liquid with elevated concentrations of chromium, acid, copper, and nickel as well as cyanide solutions. The waste was stored improperly and considered hazardous, therefore the Hazardous Waste Section issued a Notice of Violation (NOV) to the facility on January 24, 1991 (Reference 11). Appendix A contains all the laboratory data for sampling by the Hazardous Waste Section (1991).

On April 30, 1997, the Superfund Section collected samples at the Triple Plating facility. Three on-site samples were collected from the three sump-like areas (Reference 20). Figure 3 shows the location of the samples collected within each of the sumps. One of the sumps, sump #2 had several grates down beneath the surface. Three grates were encountered within 1-2 feet of the surface. Sump #3 contained a metal pipe, Superfund personnel were unable to find the location of the end of the pipe (Photograph B). These areas were possible waste source areas, as well as a direct conduits to soil, groundwater, and surface water contamination. The three samples were analyzed for volatiles, semi-volatiles, and metals, as well as for cyanide. All laboratory data from the April 30, 1997 sampling event can be found in Appendix A.

3.2 Analytical Results

Analytical results from the soil samples collected by the North Carolina Superfund Section indicate the presence of the following contaminants (with their maximum concentrations in parenthesis): acetone (10.05 ppm), phenanthrene (3.33 ppm), fluoranthene (12 ppm), pyrene (3.33 ppm), bis(2-ethylhexyl)phthalate (43.33 ppm), polychlorinated biphenols (PCBs) (40.40 ppm), arsenic (80 ppm), barium (650 ppm), cadmium (12 ppm), chromium (1,100 ppm), copper (1,700 ppm), lead (4,000 ppm), mercury (0.38 ppm), nickel (430 ppm), silver (810 ppm), and zinc (5,200 ppm) were present. Table 1 (NC Superfund sampling) show concentrations of each of the analytes present, and the location of each sample can be found on Figure 3.

3.3 Conclusions

High levels of solvents, PCBs, and PAHs were detected in the soil samples from the three sump areas (TP-002-SL, TP-003-SL, and TP-006-SL) and may indicate source material remaining on site. Highly contaminated soil and pure product left on site in the sump areas may continue to release to the soil pathway and may pose a threat to human health and the environment. A swing set has been installed on site for children to play. Children play and have complete access to the Triple Plating property that is now abandoned and is under CERCLA jurisdiction. Samples collected from beneath the swing set area (TP-005-SL) show that soil beneath the swing set contains lead at 570 mg/kg, levels greater than state and federal clean-up standards. The NC Superfund Section has requested a removal action for the Triple Plating property based on soil exposure. Furthermore, the presence of metals, PCBs, PAHs, and solvents in the sump areas (TP-002-SL, TP-003-SL, TP-006-SL) indicate a probable route of migration to the groundwater and surface water pathways.

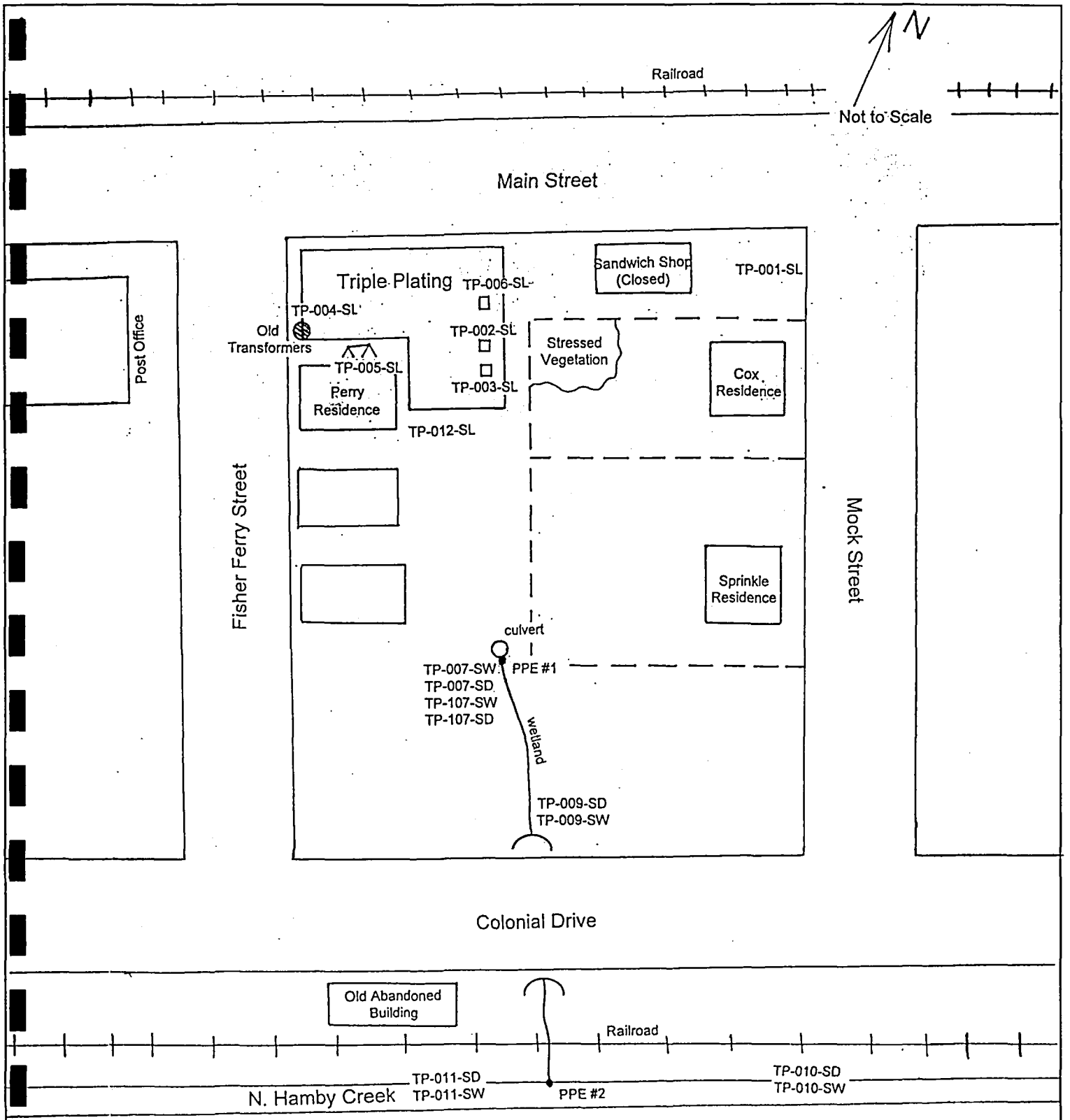


Fig. No: 3	Title: Site Map with Soil, Surface Water, and Sediment Sampling Locations		
North Carolina Division of Waste Management	Scale:Not to Scale	Date: July 23, 1997	Drawn By: S. Kozel
Superfund Section	Site Name: Triple Plating Inc.		NCD 982 115 370

Table 1. Summary of the Soil Sample Data from April 29, 1997							
Concentrations in mg/kg							
	TP-001-SL	TP-002-SL	TP-003-SL	TP-004-SL	TP-005-SL	TP-006-SL	TP-012-SL
Contaminant	Background	Sump #2	Sump #3	Transformer Area	Swingset Area	Sump #1	Spill Area
PCB			40.40				
Phenanthrene				0.67	0.33K	3.33	3.33
Fluoranthene				0.33		3.33	1.33
Pyrene			1.00	0.33		3.33	1.33
Bis(2-ethylhexyl)pthalate		20.00	2.33	0.33	0.67	43.33	1.00
Acetone			0.05				
Arsenic		80.00	7.80			3.90	
Barium	60.00	120.00	190.00	160.00	180.00	650.00	370.00
Cadmium		12.00					
Chromium		61.00	1,100.00			580.00	130.00
Copper	12.00	1,200.00	1,700.00	180.00	210.00	190.00	260.00
Lead	35.00	2,200.00	4,000.00	510.00	570.00	1,300.00	600.00
Mercury	0.07	0.38	0.41	0.34	0.29	0.12	
Nickel		290.00	430.00	29.00	20.00	250.00	180.00
Silver		360.00	810.00	100.00	55.00	24.00	63.00
Zinc	41.00	2,400.00	5,200.00	790.00	270.00	470.00	250.00

K - Actual value is known to be less than value given.
Blank Space - Material was analyzed for but not detected.

4.0 GROUNDWATER PATHWAY

4.1 Hydrogeology

Davidson County is located within the Piedmont Plateau, an uplift feature developed on the underlying granite intrusion (Reference 21). The granite weathers, to produce a gravely and sandy soil. Drainage within the county is mostly southward toward the Yadkin River. Groundwater within the county is the primary source of drinking water, except for within the cities of Lexington and Thomasville, which obtain water from municipal water supplies (Reference 6). Groundwater wells are shallow and develop water from the clayey residual material above bedrock (saprolite). In the Thomasville area, the average annual rainfall is 47 inches per year (Reference 22). The average annual lake evaporation in the area is 44 inches per year, which yields a net precipitation of 3 inches per year (Reference 23).

4.2 Groundwater Targets

There are no residential drinking wells, community wells, or private wells within 200 feet of the site. Drinking water is supplied by municipal surface water systems (Reference 24). The City of Thomasville and Davidson County Water District systems are supplied by surface water intakes located on Lake Tom-A-Lex, upstream of the confluence of Rich Fork Creek with Abbotts Creek, and High Rock Lake, 30-miles downstream of the site. (Reference 6). The extent of the municipal water supply systems near the site are shown in blue on Figure 1 (Reference 24). No one within the 4-mile target distance is served by community well systems (Reference 25).

The remainder of the houses shown on the USGS topographic map, not provided with municipal water, use private wells to supply drinking water. These houses were counted and multiplied by 2.58 persons-per-household (the population density for Davidson County in the 1990 US Census) (Reference 26). Table 2 shows the total population which received drinking water from private and community wells within a 4-mile radius of the site (Reference 28). No wellhead protection areas exist in North Carolina (Reference 29).

Table 2. Population Using Groundwater as a Source of Potable Water Within 4 Miles of the Triple Plating Facility

Distance Ring (miles)	Population served by Private Supply Wells	Cumulative Population using Groundwater
0.00 - 0.25	0	0
0.25 - 0.50	0	0
0.50 - 1.00	0	0
1.00 - 2.00	0	0
2.00 - 3.00	271	271
3.00 - 4.00	912	1,183

4.3 Sample Locations

The NC Superfund Section did not sample groundwater within the vicinity of the site because of the apparent lack of wells in the vicinity.

4.4 Conclusions

For purposes of site prioritization, the groundwater pathway is not of concern because the majority of the population within a four-mile radius do not use groundwater for drinking purposes.

5.0 SURFACE WATER PATHWAY

5.1 Hydrologic Setting

The site lies outside the 500-year flood plain of North Hamby Creek (Reference 29). The site appears to have an elevation of approximately 850 feet, estimated from the USGS topographic quadrangle (Figure 1, Reference 3). The surface water runoff empties into an intermittent creek via a culvert that drains the site (Reference 20). The intermittent creek, surrounded by a wetland, discharges into another culvert which discharges into the perennial surface water pathway, N. Hamby Creek, 1,000 feet from the site (Reference 20). N. Hamby Creek flows into Hamby Creek approximately 3.5-miles downstream. The confluence of Hamby Creek and Rich Fork Creek occurs 10.5-miles downstream. Rich Fork Creek enters Abbotts Creek 0.5-mile downstream of the confluence. The 15-mile surface water pathway ends along Abbotts Creek, 500 feet downstream of Raleigh Road in Lexington (Figure 4). The estimated flow rates for N. Hamby Creek, Hamby Creek, Rich Fork Creek, and Abbotts Creek are 1.1 cubic feet per second (cfs), 14.8 cfs, 70.8 cfs, and 153.9 cfs, respectively (Reference 31).

5.2 Surface Water Targets

Triple Plating's waste disposal practices included off site shipping of waste, off site landfill disposal, and storage on site in drums, tanks, and boxes, several of which were unsuitable for hazardous waste storage. One dumping event was supposedly reported to the Hazardous Waste Section within the last year by Ms. Kenney, the on-site resident (Reference 20). The site has two Probable Point of Entries (PPE) and surface water pathways. The first pathway is a wetland within the intermittent creek. This wetland is not contiguous to the perennial surface water pathway and thus, this pathway begins and ends with this isolated wetland. The Probable Point of Entry #1 (PPE #1) begins where the culvert draining the site empties into the intermittent creek surrounded by wetlands. The culvert is a direct conduit for contaminants from the site to PPE #1 at the wetland, approximately 300 feet from the site (Figure and Reference 20). This wetland is not continuous to the perennial surface water body of North Hamby Creek; therefore, the end of the wetland is the end of surface water pathway #1.

The second pathway is the 15-mile surface water pathway, that begins at North Hamby Creek (PPE #2), the perennial surface water body 1,000 feet south of the site. The pathway continues along North Hamby Creek for 3.5 miles until the creek flows into Hamby Creek. Hamby Creek flows for 7 miles into Rich Fork Creek. Rich Fork Creek empties into Abbotts Creek 0.5 miles downstream of its confluence and the surface water pathway ends 4 miles downstream along Abbotts Creek. Along the 10.5 miles of North Hamby Creek and Hamby Creek, there are 36.9 acres of wetlands. On the remaining 4.5 miles of the 15-mile surface water pathway, along Rich Fork Creek and Abbots Creek, 49.7 acres of wetlands are observed. A total

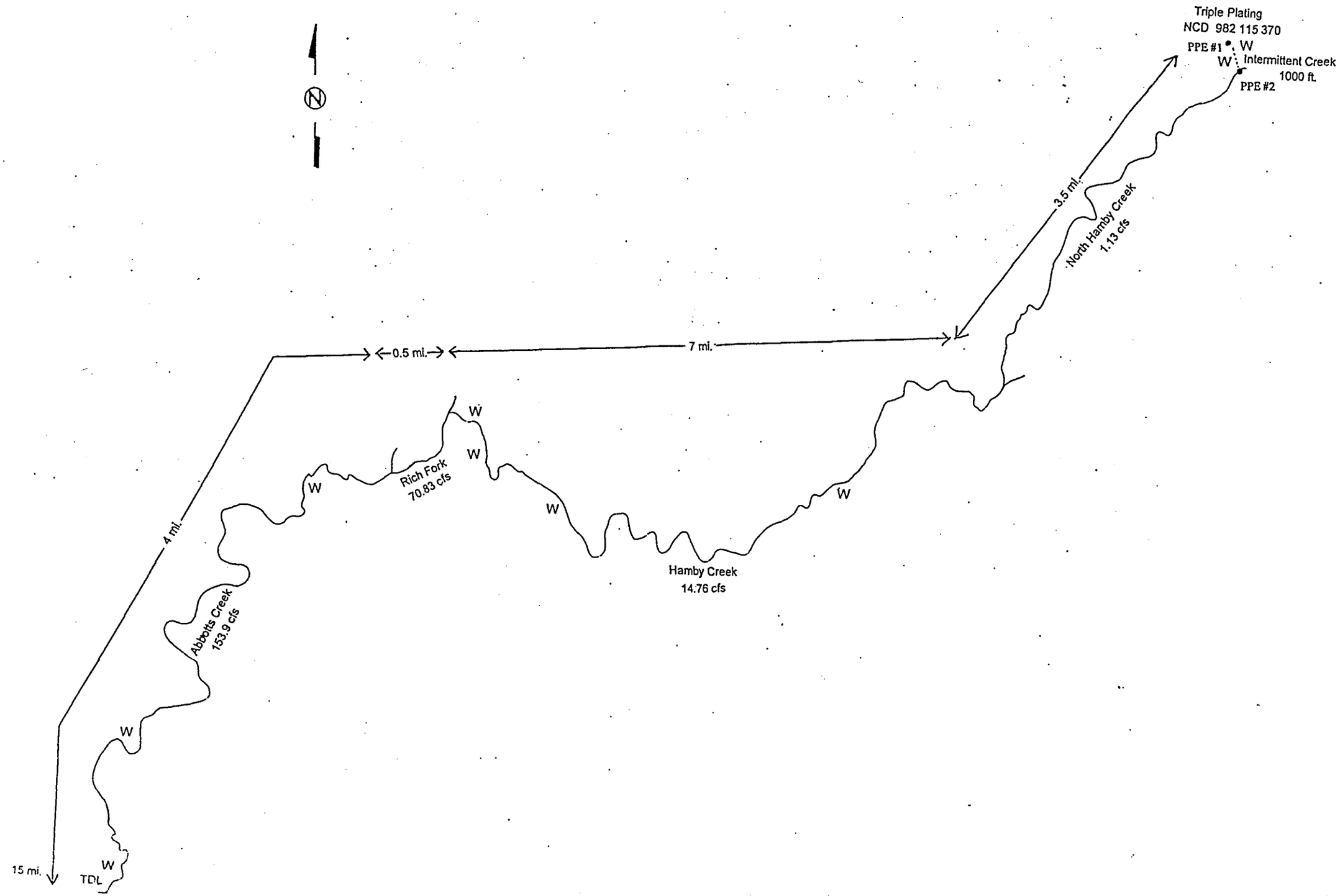


Fig. No: 4	Title: Surface Water Pathway Map		
North Carolina Division of Waste Management Superfund Section	Not to Scale	Date: July 1997	Drawn By: S. Kozel
	Site Name: Triple Plating Inc.		NCD 982 115 370

of 86.6 acres of wetlands and 2 $^1/_4$ miles of wetland frontage are located along N. Hamby Creek, Hamby Creek, Rich Fork Creek, and Abbotts Creek (Figure 4 and Reference 32). N. Hamby Creek, Hamby Creek, Rich Fork, and Abbotts Creek are fisheries (Reference 33). The entire 15-mile surface water pathway is classified as a protected fresh water Class C water body with "aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture" under the Classifications and Water Quality Standards Assigned to the Waters of the Yadkin-Pee Dee River Basin (Reference 34). There is, within the 15-mile surface water pathway, one plant noted as being significantly rare (Figure 1 and Reference 35). No plants nor animals within the target radius nor along the 15-mile surface water pathway are considered threatened or endangered (Reference 35).

5.3 Sample Locations

On April 30, 1997, NC Superfund Section personnel collected 5 sediment and surface water samples along the two surface water pathways (Figure 3 and Reference 20). Surface water and sediment samples were collected from the wetland south of the site, surface water pathway #1. Two samples were collected at PPE #1 where the culverts drains into the wetland (TP-007-SW/SD and TP-107-SW/SD). The second sampling location along the intermittent creek was collected at the end of the wetland before the second culvert (TP-009-SW/SD). No background surface water nor sediment sample was collected for surface water pathway #1 because there is no upstream point of PPE #1. Sediment and surface water samples were collected from surface water pathway #2, beginning at North Hamby Creek. A sample downstream of the culvert and PPE #2 was collected (TP-011-SW/SD), as well as a background sediment and surface water samples upstream of the culvert and PPE #2 (TP-010-SW/SD). An oily sheen was observed on the water both upstream and downstream of the discharge point (culvert). The NC Superfund sampling locations can be found on Figure 3.

5.4 Analytical Results

The analytical results from the sediment samples collected by the NC Superfund Section indicate a release to surface water pathway #1 (wetland). Minor amounts of phenanthrene (0.33 mg/kg), fluoranthene (0.33 mg/kg), and pyrene (1.00 mg/kg) were detected, as well as elevated inorganic compounds such as barium (29.0-37.0 mg/kg), copper (37.0-160.0 mg/kg), lead (43.0-100.0 mg/kg), nickel (18.0-25.0 mg/kg), silver (16.0 mg/kg), and zinc (65.0-76.0 mg/kg). Table 3 shows the concentrations of each of the samples collected by the NC Superfund Section and Appendix A contains all the analytical results.

5.5 Conclusions

Sediments in the unnamed tributary that drain the site indicate a release to the surface water pathway. Apparently, detected levels of site-related constituents are found within the sediments of the wetland. Aquatic sample (TP-007-SW) and sediment sample (TP-007-SD) indicate contaminants within the surface water pathway #1. Levels of lead and copper were detected within the sediment and aquatic sample. But downstream of the PPE #1, levels of copper and lead were detected within the sediments only (TP-009-SD), no evidence of contaminants were detected within the aquatic sample (TP-009-SW). Therefore, a release to the target wetland is only applicable to surface water sediments and not to the surface water itself.

Table 3. Summary of the Surface Water and Sediment Sample Data from April 29, 1997

Concentrations in mg/kg (sediment) or mg/l (water)

	TP-007-SW	TP-007-SD	TP-107-SW	TP-107-SD	TP-009-SW	TP-009-SD	TP-010-SW	TP-010-SD	TP-011-SW	TP-011-SD
Contaminant	Surface Water Top of wetland	Sediment Top of wetland	Duplicate of TP-007-SW	Duplicate of TP-007-SD	Surface Water End of wetland	Sediment End of wetland	Surface Water Background	Sediment Background	Surface Water Downstream on N. Hamby	Sediment Downstream on N. Hamby
PCB										
Phenanthrene										
Fluoranthene				0.33						
Pyrene				0.33						
Bis(2-ethylhexyl)pthalate				1.00						
Acetone										
Arsenic										5.90
Barium	0.20	27.00	0.10	29.00	0.10	37.00		18.00		24.00
Cadmium										
Chromium										
Copper	0.09	37.00	0.09	49.00		160.00		20.00		16.00
Lead	0.02	43.00	0.02	55.00		100.00		22.00		71.00
Mercury										
Nickel		18.00		22.00		25.00		16.00		12.00
Silver						16.00				
Zinc	0.08	65.00	0.08	76.00		74.00		47.00		57.00

6.0 SOIL EXPOSURE AND AIR PATHWAY

6.1 Physical Conditions

The soil types located in the vicinity of the site are considered to be Urban Land soil. Urban land is defined as soil that has been cut, filled, graded, or otherwise changed to the extent that the original soil characteristics have been altered or destroyed (Reference 36). Over 80% of the area is covered with buildings, sidewalks, and/or parking lots. Runoff of the site flows south into the unnamed tributary surrounded by wetlands (Reference 20).

6.2 Soil and Air Targets

The closest residence to the source area is on site, housing approximately 2 persons with 8 children staying at the residence during weekdays (Reference 20). The owner of the property, Ms. Bertha Perry, leased the residence (3 Fisher Ferry Street) to Ms. Lee Kenney of Thomasville. Ms. Kenney has lived next to the Triple Plating operation for several years. Ms. Kenney has installed a swing set on site for her grandchildren, who she takes care of five days a week, 8-9 hours a day (Reference 37). The children play and have complete access to the Triple Plating property that is now abandoned. Samples were taken from beneath the swing set due to concerned about this obvious direct contact threat, particularly to the on-site residents and neighboring children. The site is not fenced and children regularly play on the concrete foundation of the former facility. The people residing on site, as well as visitors, drive through the site to park their vehicles. This activity frequently causes dust and particles to become airborne.

No daycare facilities are located within 0.25 miles of the site. The nearest school is Colonial School, approximately one quarter mile southwest of the site (Reference 3). As shown in Table 4, according to Center for Geographic Information Analysis (CGIA), an estimated 30,743 people live within the four-mile target radius of the site (Reference 27).

The 7.5 USGS maps of Midway, High Point West, Lexington, and Fair Grove were reviewed by NC Superfund personnel at the North Carolina Heritage Program for sensitive environments. No significantly rare plants nor animals were located within the four-mile radius of the site (Figure and Reference 35).

The contaminated intermittent creek south of the site, flows adjacent to residences (Reference 20). The contaminated creeks and surrounding areas are easily accessible by residents and children.

6.3 Soil Sample Location

Several soil samples were collected by NC Superfund personnel on April 30, 1997. Almost all of the samples were taken on the property to determine if a source area exists and if a release had occurred. Every sample location is completely accessible to the on-site residence and the general public. Due to the fact that no fence surrounds the site, anyone walking by the site has complete access to the contaminated on-site areas. Three sump-like areas (#1,2,3) located within the concrete foundation were sampled (TP-006-SL, TP-002-SL, TP-003-SL, respectively). Sump # 3 had a pipe leading into the subsurface, where the pipe emptied is unknown. Soil sample TP-003-SL was collected from the area surrounding the pipe. A three-point surface soil composite sample was also taken where Ms. Kenney stated that a yellow liquid was dumped (TP-012-SL). The other potential source for soil exposure unrelated to Triple Plating operations, is

two old and rusted transformers directly adjacent to the swing set on the Triple Plating property. A three-point composite surface soil sample was taken directly beneath the old transformers (TP-004-SL) and a four-point composite sample was taken beneath the swing set (TP-005-SL) at the Kenney's residence, 3 Fischer Ferry Street. A background surface soil sample was taken east of the site, between the Cox's residence and The Sandwich Shop (TP-001-SL). Figure 4 shows the location for all the samples obtained by the NC Superfund Section.

Table 4: Population Estimate within 4-Miles of the Site

Distance from the Site (miles)	Population per Ring	Cumulative Population
0.0 - 0.25 mi.	265	265
0.25 - 0.50 mi.	1,644	1,909
0.50 - 1.00 mi.	6,066	7,975
1.00 - 2.00 mi.	8,454	16,429
2.00 - 3.00 mi.	6,656	23,085
3.00 - 4.00 mi.	7,658	30,743

6.4 Soil Analytical Results

The laboratory results of the soil samples indicate a release of fluoranthene, pyrene, acetone, phenanthrene, PCBs, bis(2-ethylhexyl)phthalate, arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc into the soil pathway. PCB, arsenic, chromium, lead, and silver are above EPA Reference Dose Screening concentrations (Reference 2). Table 2 shows the levels for each sample as well as the background levels and Appendix A contains all the analytical data.

6.5 Soil Exposure Pathway Conclusions

An observed release of fluoranthene, pyrene, acetone, phenanthrene, PCBs, bis(2-ethylhexyl)phthalate, barium, chromium, cadmium, copper, lead, mercury, nickel, silver, and zinc were detected from the soil samples collected on site. The PCB, lead, and chromium levels are above EPA's benchmark reference doses, as well as above the state and federal clean-up standards. The elevated levels of lead, chromium, and PCB pose a direct contact threat to children; therefore the NC Superfund Section has requested a removal action for the on-site contaminants (Reference 38).

7.0 SUMMARY AND CONCLUSIONS

Seventeen environmental samples were collected from the site during the Preliminary Assessment and Site Investigation. Surface water, sediment, and soil samples were collected and analyzed for volatiles, semi-volatiles, PCBs, metals, and cyanide. The analytical results indicate high quantities of PCBs, PAHs, solvents, arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc in the soil pathway, as well as fluoranthene, pyrene,

phenanthrene, and bis(2-ethylhexyl)phthalate, lead, and copper in the sediment within a wetland. The intermittent creek and wetland south of the site are contaminated at PPE #1. Sediments within the wetland contain copper and lead, but no contaminants were detected within the surface water downstream of the PPE #1. No contaminants were detected in North Hamby Creek, surface water pathway #2. Groundwater was not sampled because of the apparent lack of wells in the vicinity of the site.

As described in Section 2.2, the NC Superfund Section has already requested a removal action for the site to address the direct contact hazard, particularly to the children and other residents at 3 Fischer Ferry Street (Reference 38). However, for purposes of site remedial prioritization, **and contingent on successful completion of a removal action,** the NC Superfund Section recommends that this site receive no further federal remedial action.

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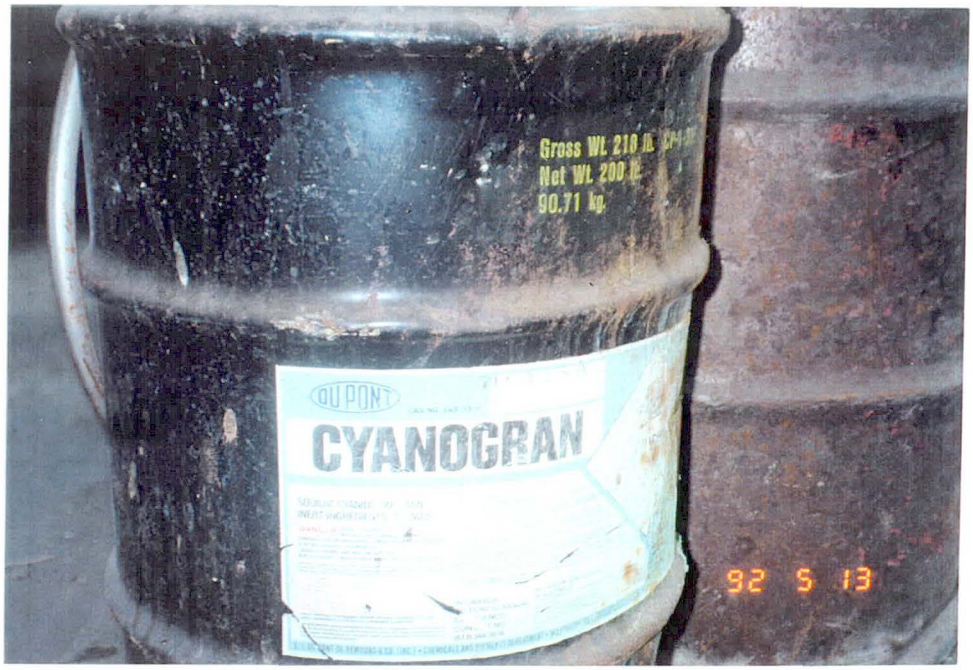
PHOTOGRAPHS

PHOTOGRAPH A

(Photographs taken by the Hazardous Waste Section-Winston-Salem Office during an inspection on May 13, 1992. No documentation exists for the photos, but they help to characterize the site before the abandonment of the building.)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Net Wt. 200 lb.
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CYANOGRAN
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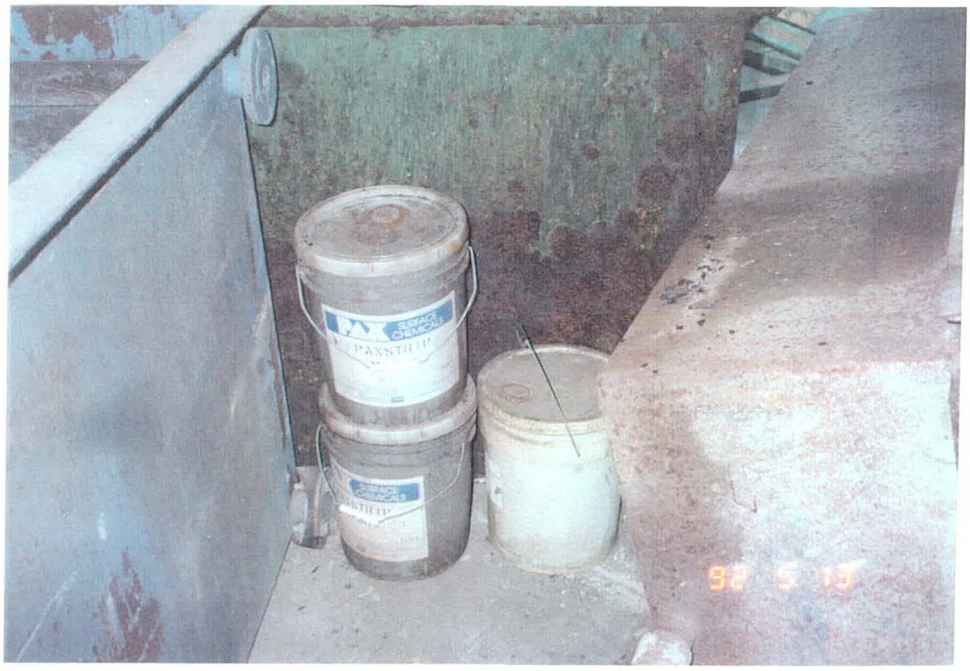
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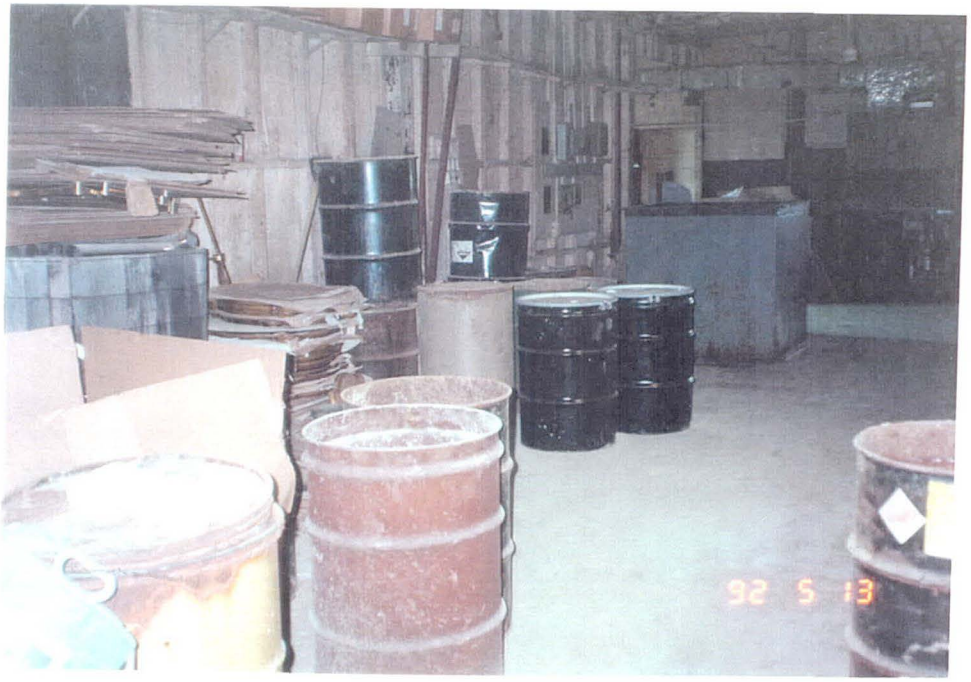
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POISON
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LOT
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NICKLE
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COPPER CYANIDE
DANGER!
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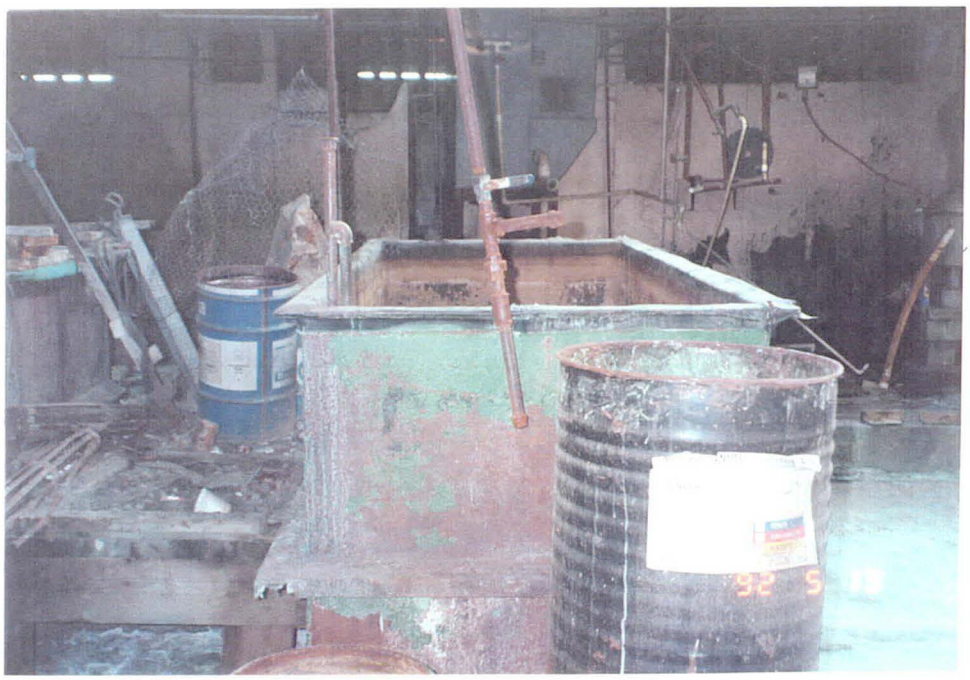

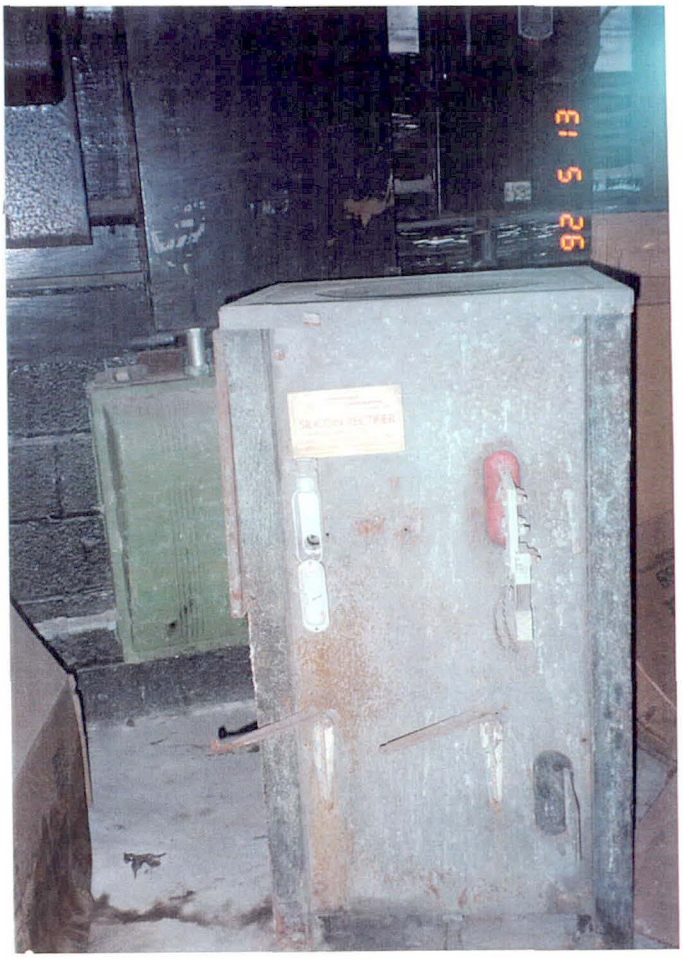
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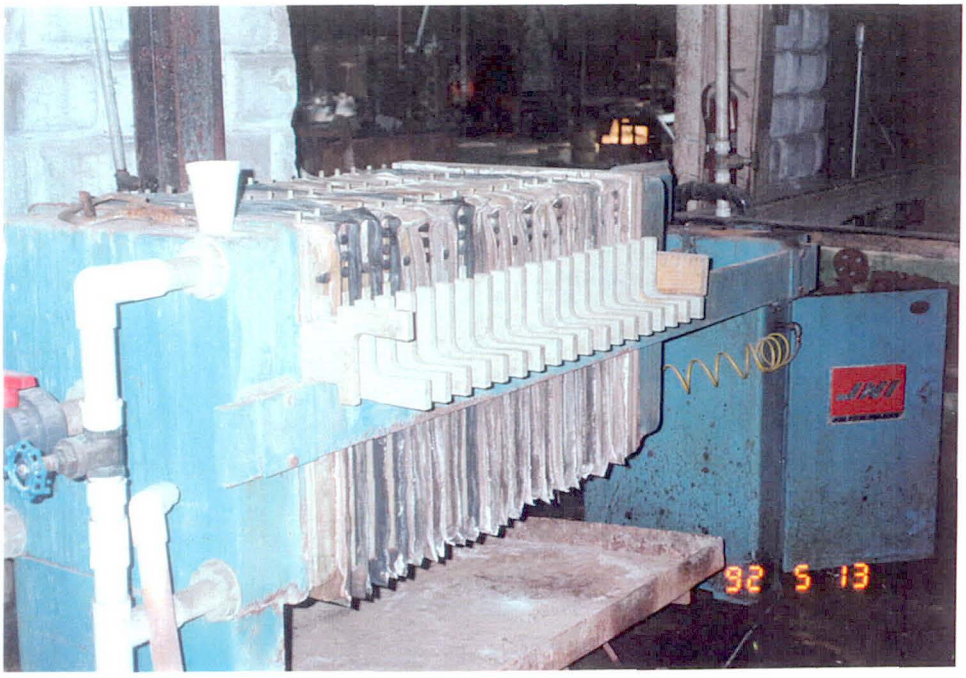
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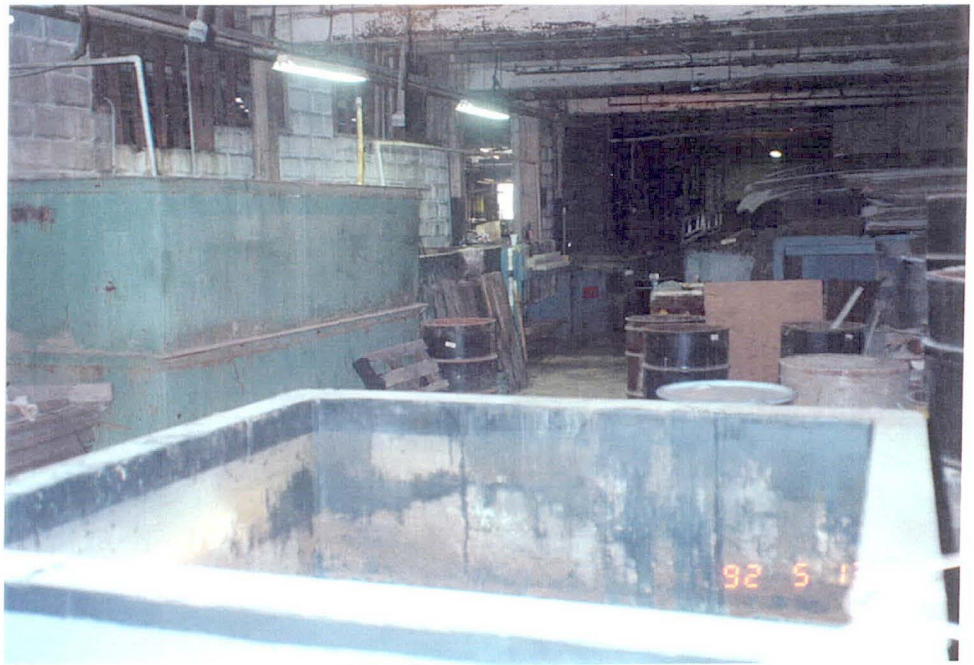
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PHOTOGRAPH B

(Photographs taken by the NC Superfund Section during the Preliminary Assessment/ Site Investigation sampling event on April 30, 1997. All pictures are captioned.)

PHOTO 1 &2: Three children playing on the concrete foundation in the vacant lot on-site and around the swing-set under the old rusted transformers.

PHOTO 3: Jeannette Stanley and Donna Wilson taking the background soil sample (TP-001-SL), adjacent but upgradient of the site.

PHOTO 4 & 5: Sample location TP-006-SL was added to the sampling event once we were on-site, this is also sump #1. Donna Wilson collected the sample.

PHOTO 6: Sump #2 located within the foundation
of the former building. Jeannette Stanley took the sample
and encountered thick yellow sludge material, sample TP-002-SL.

PHOTO 9: Donna Wilson taking the sample of sump #3.
Note the concrete-filled trench and possible sump location.

PHOTO 7 & 8: Pipe leading into the subsurface, taken from Sump #3. Sample (TP-003-SL) was taken by Jeannette Stanley and Donna Wilson of the material surrounding the pipe. Lots of debris was encountered while digging into the sump.

PHOTO 10 & 11: Close-up and wide view of the "spill area".
This is the area Ms. Kenney reported four 55-gallon drums
being dumped by the previous owners. TP-012-SL was taken here.

PHOTO 12 & 13: Wetland picture and sampling location
TP-009-SW/SD.

PHOTO 14: Donna Wilson taking sample TP-009-SW/SD
at the end of the wetland near Colonial Street.

PHOTO 15: Sample location TP-007-SW/SD and its duplicate.
Stephanie Kozel taking the sample at the beginning
of the wetland where the culvert empties into.

PHOTO 16: A picture taken from sample location TP-007-SW/SD looking down the length of the wetland back toward Colonial Street.

PHOTO 17: Looking from Colonial Street south,
the culvert routes water to the other side of Colonial Street
through this abandoned lot and it flows until
it reaches the main surface water body (N. Hamby Creek).

PHOTO 18: N. Hamby Creek, Jeannette Stanley taking the upstream sample (TP-011-SW/SD),an oily sheen was noted on the water.

PHOTO 19: The culvert that empties into the creek, that drain the site and wetland from across Colonial Street.

APPENDIX-LAB DATA

C. DEPARTMENT OF HUMAN RESOUR
DIVISION OF HEALTH SERVICES
SOLID AND HAZARDOUS WASTE MANAGEMENT BRANCH

Receipt for Samples

The samples described below were collected in connection with the administration, enforcement, and documentation of the:

(✓) North Carolina Hazardous Waste Management Rules, 10 NCAC 10F

( ) North Carolina Solid Waste Management Rules, 10 NCAC 10G

( ) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

( ) Toxic Substances Control Act (TSCA) 15 U.S.C. §2601, et seq., specifically Section 11 of TSCA, 15 U.S.C. § 2610.

Steve Phillips — Inspector's Name
310 E. Third St. Winston-Salem — Inspector's Address

Triple Plating Inc. — Name of Firm
37 W. Main St., Thomasville, N.C. — Firm Address

Robert Godley — Firm Owner, Operator, or Agent
Owner — Title

SAMPLE NUMBER	COLLECTED DATE	COLLECTED TIME	SAMPLE TYPE WATER	SAMPLE TYPE SOIL	SAMPLE TYPE OTHER	DUPLICATE SAMPLES OFFERED	DUPLICATE SAMPLES ACCEPTED	DUPLICATE SAMPLES REJECTED	SAMPLE LOCATION ON-SITE	SAMPLE LOCATION OFF-SITE
008114	1/16/91	10:30 a.m.			✓			✓	✓	
008115	1/16/91	10:30			✓			✓	✓	
008116	1/16/91	10:30			✓			✓	✓	
008117	1/16/91	10:30			✓			✓	✓	
008118	1/16/91	10:30			✓			✓	✓	
008119	1/16/91	10:30			✓			✓	✓	
008120	1/16/91	10:30			✓			✓	✓	

Receipt for the sample(s) described above is hereby acknowledged:

Steve Phillips
Signature of Inspector

Waste Mgt. Specialist
Title

Receipt/rejection of duplicate or split samples is hereby acknowledged:

Signature of Firm Owner, Operator, or Agent

Title

COMMENTS Please analyze as soon as possible, part of hazardous waste investigation

DHS 3241 (7/84)
Solid & Hazardous Waste

40-ml Glass Vials With Septum Tops

Department of Human Resources
Division of Health Services

SAMPLE ANALYSES REQUEST

#7

State Laboratory of Public Health
P. O. Box 28047
306 N. Wilmington Street
Raleigh, 27611

Site Number 29.D982115376 Field Sample Number 008120

Name of Site Triple Plating Inc. Site Location 27 W. Main St., Thomasville N.

Collected By S. Phillips ID# 08 Date Collected 1/16/91 Time 10:30 AM

Type of Sample: Check either: 1, or 2

Environmental	Concentrate
___ Groundwater (1)	___ Solid (5)
___ Surface Water (2)	___ Liquid (6)
___ Soil (3)	✓ Sludge (7)
✓ Other (4)	___ Other (8)

Comments: Sample collected from sludge storage boxes near filter press

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
✓ Arsenic	<0.01	Arsenic		Silver	
✓ Barium	2.29	Barium		Sulfates	
✓ Cadmium	<0.08	Cadmium		Zinc	
✓ Chromium	1.71	Chloride		Ph	
✓ Lead	<0.50	Chromium		Conductivity	
✓ Mercury	<0.02	Copper		TDS	
✓ Selenium	0.041	Fluoride		TOC	
✓ Silver	<0.10	Iron			
✓ Copper	4.37	Lead			
		Manganese			
		Mercury			
		Nitrate			
		Selenium			

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
MF) Coliform Colonies/100mls
MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received ___ Date Reported ___

Date Extracted ___ Date Analyzed ___

Reported By ___ Lab Number 001592 JAN 23 91

( ) 40-ml Glass Vials With Sept(Tops

N. C. Department of Human Resources
Division of Health Services

SAMPLE ANALYSES REQUEST

#1

State Laboratory of Public Heal
P. O. Box 280
306 N. Wilmington Stre
Raleigh, 276.

Site Number 29D982115370 Field Sample Number 008114

Name of Site Triple Plating Inc. Site Location 27 W. Main St. Thomasville, N. C.

Collected By S. Phillips ID# 08 Date Collected 1/16/91 Time 10:30 A.M.

Type of Sample: Check either: 1, or 2

Environmental	Concentrate	Comments
___ Groundwater (1)	___ Solid (5)	Sample collected from electroplating tank
___ Surface Water (2)	✓ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
✓ Other (4)	___ Other (8)	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
___ Arsenic		✓ Arsenic	<1.0	✓ Silver	<8
___ Barium		✓ Barium	<3	___ Sulfates	
___ Cadmium		✓ Cadmium	<6	✓ Zinc	350
___ Chromium		~~✓ Chloride~~		✓ Ph	7 (paper)
___ Lead		✓ Chromium	185	___ Conductivity	
___ Mercury		✓ Copper	<4	___ TDS	
___ Selenium		___ Fluoride		___ TOC	
___ Silver		___ Iron		✓ Nickel	72000
		✓ Lead	<8	✓ Cyanide	<8
		___ Manganese			
		✓ Mercury	<0.02		
		___ Nitrate			
		✓ Selenium	<2.0		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
___ P&T:GC/MS		___ EDB		___ Methoxychlor	
___ Acid:B/N Ext.		___ PCB's		___ Toxaphene	
___ TOX		___ Petroleum		___ 2,4-D	
		___ Endrin		___ 2,4,5-TP (silvex)	
		___ Lindane			

MICROBIOLOGY

Parameter
___ (MF) Coliform Colonies/100mls
___ (MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
___ Gross Alpha	
___ Gross Beta	

Date Received ___ Date Reported ___

Date Extracted ___ Date Analyzed ___

Reported By ___ Lab Number ___ 001593 JAN 23 91

191 (Revised 7/85)
Solid and Hazardous Waste Review 7/87)

40-ml Glass Vials With Septa Caps

Department of Human Resources
Division of Health Services

SAMPLE ANALYSES REQUEST

#2

State Laboratory of Public Health
P. O. Box 28047
306 N. Wilmington Street
Raleigh, 27611

Site Number 29D982115370 Field Sample Number 008115

Name of Site Triple Plating Inc Site Location 27 W. Main St. Thomasville, N.C

Collected By S. Philbin ID# 08 Date Collected 1/16/91 Time 10:30 A.M.

Type of Sample: Check either: 1, or 2

Environmental	Concentrate	Comments
___ Groundwater (1)	___ Solid (5)	Sample collected from electroplating Tank
___ Surface Water (2)	✓ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
✓ Other (4)	___ Other (8)	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		✓ Arsenic	<1.0	✓ Silver	<8
Barium		✓ Barium	<3	Sulfates	
Cadmium		✓ Cadmium	<6	✓ Zinc	220
Chromium		~~✓ Chloride~~		✓ Ph	7 (paper)
Lead		✓ Chromium	300	Conductivity	
Mercury		✓ Copper	9	TDS	
Selenium		Fluoride		TOC	
Silver		Iron		✓ Nickel	71,000
		✓ Lead	<8	✓ Cyanide	<8
		Manganese			
		✓ Mercury	<0.02		
		Nitrate			
		✓ Selenium	<10		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
V.O.&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls.
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received ___ Date Reported ___

Date Extracted ___ Date Analyzed ___

Reported By ___ Lab Number ___

001594 JAN 23 91

31[redacted] (Revised 7/85)
and Hazardous Waste (Review 7/87)

40-ml Glass Vials With Septum Tops

Department of Human Resources
Division of Health Services

SAMPLE ANALYSES REQUEST

#3

State Laboratory of Public Health
P. O. Box 2804
306 N. Wilmington Street
Raleigh, 2761

Site Number NCD982115370 Field Sample Number 008116

Name of Site Triple Plating Inc. Site Location 27 W. Main St. Thomasville, N.C.

Collected By S. Phillips ID# 08 Date Collected 1/16/91 Time 10:30AM

Type of Sample: Check either: 1, or 2

Environmental	Concentrate	Comments
___ Groundwater (1)	___ Solid (5)	Sample collected from electroplating tank
___ Surface Water (2)	✓ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
✓ Other (4)	___ Other (8)	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		✓ Arsenic	<1.0	✓ Silver	<10
Barium		✓ Barium	<4	Sulfates	
Cadmium		✓ Cadmium	<8	Zinc	
Chromium		~~Chloride~~		✓ Ph	11 (paper)
Lead		✓ Chromium	<10	Conductivity	
Mercury		✓ Copper	5,500	TDS	
Selenium		Fluoride		TOC	
Silver		Iron		✓ Cyanide	5800
		✓ Lead	<10		
		Manganese			
		✓ Mercury	<0.02		
		Nitrate			
		✓ Selenium	<0.5		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received ___ Date Reported ___

Date Extracted ___ Date Analyzed ___

Reported By ___ Lab Number ___ 001595 JAN 23 91

40-ml Glass Vials With Septum Tops

J. C. D. partment of Human Resources
Division of Health Services

SAMPLE ANALYSES REQUEST

#4

State Laboratory of Public Healti
P. O. Box 2804
306 N. Wilmington Stree
Raleigh, 2761

ite Number 29D 982153 TO Field Sample Number 008117

me of Site Triple Plating Inc. Site Location 27 W. Main St., Thomasville, NC

Collected By S. Hubbs ID# 08 Date Collected 1/16/91. Time 10:30 A.M.

ype of Sample: Check either: 1, or 2

Environmental	Concentrate	Comments
___ Groundwater (1)	___ Solid (5)	Sample collected from electroplating tank
___ Surface Water (2)	✓ Liquid (6)	
✓ Soil (3)	___ Sludge (7)	
✓ Other (4)	___ Other (8)	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		✓ Arsenic	<6.0	✓ Silver	<9
Barium		✓ Barium	<4	Sulfates	
Cadmium		✓ Cadmium	<7	Zinc	
Chromium		✓ ~~Chloride~~		✓ Ph	1+ (paper)
Lead		✓ Chromium	<9	Conductivity	
Mercury		✓ Copper	22,400	TDS	
Selenium		Fluoride		TOC	
Silver		Iron		✓ Cyanide	2.8 %
		✓ Lead	<9		
		Manganese			
		✓ Mercury	<0.02		
		Nitrate			
		✓ Selenium	<0.5		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

ate Received ___ Date Reported ___

ate Extracted ___ Date Analyzed ___

ported By ___ Lab Number ___ 001596 JAN 23 91

PS 91 (Revised 7/85)
ld and Hazardous Waste Review 7/87)

40-ml Glass Vials With Septu ops

N D partment of Human Resources
Division of Health Services

SAMPLE ANALYSES REQUEST

#5

State Laboratory of Public Healti
P. O. Box 2804
306 N. Wilmington Stree
Raleigh, 2761

Site Number 29D982115370 Field Sample Number 008118

Name of Site Triple Plating Inc. Site Location 27 W. Main St., Thomasville NC

Collected By S. Phillips ID# 08 Date Collected 1/16/91 Time 10:30A.

Type of Sample: Check either: 1, or 2

Environmental	Concentrate	Comments
____ Groundwater (1)	____ Solid (5)	Sample collected from an
____ Surface Water (2)	____ Liquid (6)	electroplating tank
____ Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		✓ Arsenic	<1.0	✓ Silver	<10
Barium		✓ Barium	<4	Sulfates	
Cadmium		✓ Cadmium	<8	Zinc	
Chromium		~~Chloride~~		✓ Ph	11 (paper)
Lead		✓ Chromium	<10	Conductivity	
Mercury		✓ Copper	6,810	TDS	
Selenium		Fluoride		TOC	
Silver		Iron		✓ Cyanide	1.0 %
		✓ Lead	<10		
		Manganese			
		✓ Mercury	<0.02		
		Nitrate			
		✓ Selenium	<0.5		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

ate Received ____ Date Reported ____

ate xtracted ____ Date Analyzed ____

eported By ____ Lab Number 001597 JAN 23 91

S 91 (Revised 7/85)
ld and Hazardous Waste (Review 7/87)

40-ml Glass Vials With Septa Caps

Department of Human Resources
Division of Health Services

SAMPLE ANALYSES REQUEST

#6

State Laboratory of Public Health
P. O. Box 28047
306 N. Wilmington Street
Raleigh, 27611

Site Number 29D982115370 Field Sample Number 008119

Name of Site Triple Plating, Inc. Site Location 27 W. Main St., Thomasville NC

Collected By S. Stubbs ID# 08 Date Collected 1/16/91 Time 10:30 A.M.

Type of Sample: Check either: 1, or 2

Environmental	Concentrate	Comments
___ Groundwater (1)	___ Solid (5)	Sample collected from an electroplating tank.
___ Surface Water (2)	✓ Liquid (6)	
___ Soil (3)	___ Sludge (7)	
✓ Other (4)	___ Other (8)	

INORGANIC CHEMISTRY

Extractables		Total			
Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
Arsenic		✓ Arsenic	<41	✓ Silver	<8
Barium		✓ Barium	<3	Sulfates	
Cadmium		✓ Cadmium	<7	Zinc	
Chromium		~~Chloride~~		✓ Ph	10 (pcpw)
Lead		✓ ~~Chromium~~	16,800	Conductivity	
Mercury		✓ Copper	15	TDS	
Selenium		Fluoride		TOC	
Silver		Iron		✓ Cyanide	260
		✓ Lead	8		
		Manganese			
		✓ Mercury	<0.02		
		Nitrate			
		✓ Selenium	<1.0		

ORGANIC CHEMISTRY

Parameter	Results mg/1	Parameter	Results mg/1	Parameter	Results mg/1
P&T:GC/MS		EDB		Methoxychlor	
Acid:B/N Ext.		PCB's		Toxaphene	
TOX		Petroleum		2,4-D	
		Endrin		2,4,5-TP (silvex)	
		Lindane			

MICROBIOLOGY

Parameter
(MF) Coliform Colonies/100mls
(MPN) Coliform Colonies/100mls

RADIOCHEMISTRY

Parameter	Results PCi/1
Gross Alpha	
Gross Beta	

Date Received ___ Date Reported ___

Date Extracted ___ Date Analyzed ___

Reported By ___ Lab Number ___

00159 JAN 23 91

S 3[illegible]1 (Revised 7/85)
Land Hazardous Waste (Review 7/87)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020136

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 10:20 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-001-SL
____ Surface water (2)	____ Liquid (6)	Background by Cox's
X Soil (3)	____ Sludge (7)	Home.
____ Other (4)	____ Other (8)	

RECEIVED
JUN 12 1997
SUPERFUND SECTION

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by John E. Neal

Date Extracted _____ Date Reported 6/09/97

Date Analyzed 5-13-97 NJ Lab Number 971566

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020137

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 10:20 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-001-SL
____ Surface water (2)	____ Liquid (6)	Background by
X Soil (3)	____ Sludge (7)	Cox's House.
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCBs	<0.10 ppm

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by ____

PCB 5-21-97 VP

Date Extracted BNA 5-14-97 BQ Date Reported ____

PCBs 5-22-97 VP

Date Analyzed BNA 5-21-97 BQ Lab Number 971867

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020138

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 11:05 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-002-SL
____ Surface water (2)	____ Liquid (6)	Sump area #2
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-13-97 MJ Lab Number 971668

DHS 3191 (Revised 2/91)

Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020139

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 11:05 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-002-SL
___ Surface water (2)	___ Liquid (6)	Sump area #2
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	
X PCBs	<0.10 ppm

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____
PCBs 5-21-97 VP
Date Extracted BNA 5-14-97 BD Date Reported _____
PCBs 5-22-97 VP
Date Analyzed BNA 5-21-97 BD Lab Number 971669

HS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020140

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 11:43 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-003-SL
____ Surface water (2)	____ Liquid (6)	Sump #3 (pipe)
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results (mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/l) (mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results (mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results (mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-13-97 AJ Lab Number 971570

DHS 3191 (Revised 2/91)

Department of Environment, Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020141

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 11:43 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-003-SL
____ Surface water (2)	____ Liquid (6)	Sump #3 (pipe)
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's (1254)	40.4 ppm

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____
PCB's 5-21-97 VP
Date Extracted BNA 5-14-97 BD Date Reported _____
PCB's 5-22-97 VP
Date Analyzed BNA 5-21-97 BD Lab Number 971571

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020142

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 11:00 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-004-SL
____ Surface water (2)	____ Liquid (6)	transformer area
X Soil (3)	____ Sludge (7)	(composite)
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-13-97 NJ Lab Number 971672

DHS 3191 (Revised 2/91)

Department of Environment, Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020143

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 11:00 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-004-SL
___ Surface water (2)	___ Liquid (6)	transformer area
X Soil (3)	___ Sludge (7)	(Composite)
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	
X PCB's	<0.10 ppm

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by _____

Date Extracted PCBs 5-21-97VP BNA 5-14-97BD Date Reported _____

Date Analyzed PCBs 5-22-97VP BNA 5-21-97BD Lab Number 971673

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020144

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 10:40 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-005-SL
____ Surface water (2)	____ Liquid (6)	Swingset composite
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-13-97 NJ Lab Number 971574

DHS 3191 (Revised 2/91)

Department of Environment,
Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020145

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 10:40 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-005-SL
___ Surface water (2)	___ Liquid (6)	Swiggart Composite
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	
X PCBs	< 0.10 ppm

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by _____

PCBs 5-21-97 VP

Date Extracted BNA 5-14-97 BD Date Reported _____

PCBs 5-22-97 VP

Date Analyzed BNA 5-21-97 BD Lab Number 971875

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020146

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 10:45 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-006-SL
____ Surface water (2)	____ Liquid (6)	1st (new) sump area
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-13-97 nJ Lab Number 971676

DHS 3191 (Revised 2/91)

N.C. epartment of Environment, Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020147

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# Date Collected 4-29-97 Time 10:45 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-006-SL
___ Surface water (2)	___ Liquid (6)	1st sump area
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	
X PCB's	<0.10 ppm

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by
PCB 5-21-97 VP
Date Extracted BNA 5-14-97 BO Date Reported
PCB's 5-22-97 VP
Date Analyzed BNA 5-21-97 BO Lab Number 971577

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020148

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 11:55 Am

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-012-SL
___ Surface water (2)	___ Liquid (6)	"Spill" area
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-14-97 AJ Lab Number 971678

DHS 3191 (Revised 2/91)

. . . epartment o -nvironment,
Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115 370 Field Sample Number U 20149

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 11:55 Am

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-012-SL
____ Surface water (2)	____ Liquid (6)	"spill" area
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.10 ppm

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by _____

PCB's 5-21-97 VP

Date Extracted BNA 5-14-97 BD Date Reported _____

PCB's 5-23-97 VP

Date Analyzed BNA 5-22-97 BD Lab Number 971679

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020150

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 2:45 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-007-SD
___ Surface water (2)	___ Liquid (6)	top of wetland
___ Soil (3)	___ Sludge (7)	
X Other (4) (sediment)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-14-97 TJ Lab Number 971680

DHS 3191 (Revised 2/91)

N.C. Department of Environment,
Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020151

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 2:45 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-007-SD
____ Surface water (2)	____ Liquid (6)	top of wetland
____ Soil (3)	____ Sludge (7)	
X Other (4) (sediment)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.10ppm

Radiochemistry

Parameter	Results (PCI/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

PCBs 5-21-97 VP

Date Extracted BNA 5-14-97 BO Date Reported ____

PCBs 5-23-97 VP

Date Analyzed BNA 5-22-97 BO Lab Number 971681

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020152

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:25 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-007-SW
X Surface water (2)	X Liquid (6)	top of wetland
____ Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-8-97 MJ Lab Number 971682

DHS 3191 (Revised 2/91)

. . . epartment o 'nvironment,
Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115 370 Field Sample Number 020153

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Kotel ID# _____ Date Collected 4-29-97 Time 2:25 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-007-SW
X Surface water (2)	X Liquid (6)	top of wetland
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	
X PCB's	<0.0001 ppm

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted PCB's 5-20-97 VP, WG BNA 5/5/97 WG, JPM Date Reported _____

Date Analyzed PCB's 5-22-97 VP BNA 5-20-97 BD Lab Number 971883

DHS 3191 (Revised 2/91)

(1)

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	971667	971669	971671	971673	971675	971677
	FIELD #	20137	20139	20141	20143	20145	20147
COMPOUND	TYPE	(3)	(3)	(3)	(3)	(3)	(3)
	UNITS	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg
N-nitrosodimethylamine	10/330	U	U	U	U	U	U
bis(2-chloroethyl)ether	↓	↓	↓	↓	↓	↓	↓
2-chlorophenol							
phenol							
1,3-dichlorobenzene							
1,4-dichlorobenzene							
1,2-dichlorobenzene							
bis(2-chloroisopropyl)ether							
hexachloroethane							
N-nitroso-di-n-propylamine							
nitrobenzene							
isophorone							
2-nitrophenol							
2,4-dimethylphenol							
bis(2-chloroethoxy)methane							
2,4-dichlorophenol							
1,2,4-trichlorobenzene							
naphthalene							
hexachlorobutadiene							
4-chloro-m-cresol							
hexachlorocyclopentadiene							
2,4,6-trichlorophenol							
2-chloronaphthalene							
acenaphthylene							
dimethyl phthalate							
2,6-dinitrotoluene							
acenaphthene	↓						
2,4-dinitrophenol	50/1650						
2,4-dinitrotoluene	10/330						
4-nitrophenol	50/1650						
fluorene	10/330						
4-chlorophenylphenylether	↓						
diethyl phthalate							
4,6-dinitro-o-cresol	50/1650						
diphenylamine	10/330						
azobenzene	↓						
4-bromophenylphenylether							
hexachlorobenzene							
pentachlorophenol	50/1650				↓	↓	↓
phenanthrene	10/330				667	330K	3,333
anthracene	↓				U	U	U
dibutyl phthalate					U	↓	U
fluoranthene	↓	↓	↓	↓	333		3,333

MDL
H_2O/SOIL

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

(2)

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	971667	971669	971671	971673	971675	971677
	FIELD #	20137	20139	20141	20143	20145	20147
COMPOUND	TYPE	(3)	(3)	(3)	(3)	(3)	(3)
	UNITS	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg
pyrene	10/330	U	U	1,000	333	U	3,333
benzidine	50/1650			U	U		U
butyl benzyl phthalate	10/330						
benz(a)anthracene							
chrysene							
3,3-dichlorobenzidine	50/1650						
bis(2-ethylhexyl)phthalate	10/330		20,000	2,333	333	667	43,333
di-n-octyl phthalate	10/330		U	U	U	U	U
benzo(b)fluoranthene	50/1650						
benzo(k)fluoranthene							
benzo(a)pyrene							
indeno(1,2,3-cd)pyrene							
dibenzo(a,h)anthracene							
benzo(g,h,i)perylene							
aniline	50/1650	U	U	U	U	U	U
benzoic acid							
benzyl alcohol							
4-chloroaniline							
dibenzofuran	10/330						
2-methylnaphthalene							
2-methylphenol							
4-methylphenol							
2-nitroaniline	50/1650						
3-nitroaniline							
4-nitroaniline							
2,4,5-trichlorophenol							
PCB 1254 (CONFIRMATION by GC/MS)	+/-	-	-	+	-	-	-

MDL
H2O/501L

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

(3)

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	971679	971681	971683	971685	971687	971689
	FIELD #	20149	20151	20153	20155	20157	20159
COMPOUND	TYPE	(3)	(4)	(2)	(4)	(2)	(4)
	UNITS	~~mg/l~~ µg/kg	~~mg/l~~ µg/kg	µg/l ~~mg/kg~~	~~mg/l~~ µg/kg	µg/l ~~mg/kg~~	~~mg/l~~ µg/kg
N-nitrosodimethylamine	10/330	U	U	U	U	U	U
bis(2-chloroethyl)ether	↓	↓	↓	↓	↓	↓	↓
2-chlorophenol	↓	↓	↓	↓	↓	↓	↓
phenol	↓	↓	↓	↓	↓	↓	↓
1,3-dichlorobenzene	↓	↓	↓	↓	↓	↓	↓
1,4-dichlorobenzene	↓	↓	↓	↓	↓	↓	↓
1,2-dichlorobenzene	↓	↓	↓	↓	↓	↓	↓
bis(2-chloroisopropyl)ether	↓	↓	↓	↓	↓	↓	↓
hexachloroethane	↓	↓	↓	↓	↓	↓	↓
N-nitroso-di-n-propylamine	↓	↓	↓	↓	↓	↓	↓
nitrobenzene	↓	↓	↓	↓	↓	↓	↓
isophorone	↓	↓	↓	↓	↓	↓	↓
2-nitrophenol	↓	↓	↓	↓	↓	↓	↓
2,4-dimethylphenol	↓	↓	↓	↓	↓	↓	↓
bis(2-chloroethoxy)methane	↓	↓	↓	↓	↓	↓	↓
2,4-dichlorophenol	↓	↓	↓	↓	↓	↓	↓
1,2,4-trichlorobenzene	↓	↓	↓	↓	↓	↓	↓
naphthalene	↓	↓	↓	↓	↓	↓	↓
hexachlorobutadiene	↓	↓	↓	↓	↓	↓	↓
4-chloro-m-cresol	↓	↓	↓	↓	↓	↓	↓
hexachlorocyclopentadiene	↓	↓	↓	↓	↓	↓	↓
2,4,6-trichlorophenol	↓	↓	↓	↓	↓	↓	↓
2-chloronaphthalene	↓	↓	↓	↓	↓	↓	↓
acenaphthylene	↓	↓	↓	↓	↓	↓	↓
dimethyl phthalate	↓	↓	↓	↓	↓	↓	↓
2,6-dinitrotoluene	↓	↓	↓	↓	↓	↓	↓
acenaphthene	↓	↓	↓	↓	↓	↓	↓
2,4-dinitrophenol	50/1650	↓	↓	↓	↓	↓	↓
2,4-dinitrotoluene	10/330	↓	↓	↓	↓	↓	↓
4-nitrophenol	50/1650	↓	↓	↓	↓	↓	↓
fluorene	10/330	↓	↓	↓	↓	↓	↓
4-chlorophenylphenylether	↓	↓	↓	↓	↓	↓	↓
diethyl phthalate	↓	↓	↓	↓	↓	↓	↓
4,6-dinitro-o-cresol	50/1650	↓	↓	↓	↓	↓	↓
diphenylamine	10/330	↓	↓	↓	↓	↓	↓
azobenzene	↓	↓	↓	↓	↓	↓	↓
4-bromophenylphenylether	↓	↓	↓	↓	↓	↓	↓
hexachlorobenzene	↓	↓	↓	↓	↓	↓	↓
pentachlorophenol	50/1650	↓	↓	↓	↓	↓	↓
phenanthrene	10/330	3,333	↓	↓	↓	↓	↓
anthracene	↓	U	↓	↓	↓	↓	↓
dibutyl phthalate	↓	U	↓	↓	↓	↓	↓
fluoranthene	↓	1,333	↓	↓	333	↓	↓

MDL
H_2O/SOIL

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
N/A - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

4

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	971679	971681	971683	971685	971687	971689
	FIELD #	20149	20151	20153	20155	20157	20159
COMPOUND	TYPE	(3)	(4)	(2)	(4)	(2)	(4)
	UNITS	~~µg/l~~ µg/kg	~~µg/l~~ µg/kg	µg/l ~~µg/kg~~	~~µg/l~~ µg/kg	µg/l ~~µg/kg~~	~~µg/l~~ µg/kg
pyrene	10/330	1,333	U	U	333	U	U
benzidine	50/1650	U			U		
butyl benzyl phthalate	10/330						
benz(a)anthracene							
chrysene							
3,3-dichlorobenzidine	50/1650						
bis(2-ethylhexyl)phthalate	10/330	1,000			1,000		
di-n-octyl phthalate	10/330	U			U		
benzo(b)fluoranthene	50/1650						
benzo(k)fluoranthene							
benzo(a)pyrene							
indeno(1,2,3-cd)pyrene							
dibenzo(a,h)anthracene							
benzo(g,h,i)perylene							
aniline	50/1650	U	U	U	U	U	U
benzoic acid							
benzyl alcohol							
4-chloroaniline							
dibenzofuran	10/330						
2-methylnaphthalene							
2-methylphenol							
4-methylphenol							
2-nitroaniline	50/1650						
3-nitroaniline							
4-nitroaniline							
2,4,5-trichlorophenol							
PCB	+/-	-	-	-	-	-	-
(CONFIRMATION BY GC/MS)							

MDL
H2O/50ML

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

(5)

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	971691		971693		971695		971697		971699		
	FIELD #	20161		20163		20165		20167		20169		
COMPOUND	TYPE	(2)		(2)		(4)		(2)		(4)		( )
	UNITS	µg/l	~~µg/kg~~	µg/l	~~µg/kg~~	~~µg/l~~	µg/kg	µg/l	~~µg/kg~~	~~µg/l~~	µg/kg	µg/l µg/kg
N-nitrosodimethylamine	10/330	U		U		U		U		U		
bis(2-chloroethyl)ether	↓											
2-chlorophenol												
phenol												
1,3-dichlorobenzene												
1,4-dichlorobenzene												
1,2-dichlorobenzene												
bis(2-chloroisopropyl)ether												
hexachloroethane												
N-nitroso-di-n-propylamine												
nitrobenzene												
isophorone												
2-nitrophenol												
2,4-dimethylphenol												
bis(2-chloroethoxy)methane												
2,4-dichlorophenol												
1,2,4-trichlorobenzene												
naphthalene												
hexachlorobutadiene												
4-chloro-m-cresol												
hexachlorocyclopentadiene												
2,4,6-trichlorophenol												
2-chloronaphthalene												
acenaphthylene												
dimethyl phthalate												
2,6-dinitrotoluene												
acenaphthene	↓											
2,4-dinitrophenol	50/1650											
2,4-dinitrotoluene	10/330											
4-nitrophenol	50/1650											
fluorene	10/330											
4-chlorophenylphenylether	↓											
diethyl phthalate	↓											
4,6-dinitro-o-cresol	50/1650											
diphenylamine	10/330											
azobenzene	↓											
4-bromophenylphenylether	↓											
hexachlorobenzene	↓											
pentachlorophenol	50/1650											
phenanthrene	10/330											
anthracene	↓											
dibutyl phthalate	↓											
fluoranthene	↓	✓		✓		✓		✓		✓		

MDL
H_2O/SOIL

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

6

STATE LABORATORY OF PUBLIC HEALTH

P.O. BOX 28047 - 306 N. WILMINGTON, ST., RALEIGH, N.C. 27611

ORGANIC CHEMICAL ANALYSIS

BASE/NEUTRAL AND ACID EXTRACTABLES	LAB NO	971691	971693	971695	971697	971699	
	FIELD #	20161	20163	20165	20167	20169	
COMPOUND	TYPE	(2)	(2)	(4)	(2)	(4)	( )
	UNITS	µg/l ~~µg/kg~~	µg/l ~~µg/kg~~	~~µg/l~~ µg/kg	µg/l ~~µg/kg~~	~~µg/l~~ µg/kg	µg/l µg/kg
pyrene	10/330	U	U	U	U	U	
benzidine	50/1650						
butyl benzyl phthalate	10/330						
benz(a)anthracene							
chrysene							
3,3-dichlorobenzidine	50/1650						
bis(2-ethylhexyl)phthalate	10/330						
di-n-octyl phthalate	10/330						
benzo(b)fluoranthene	50/1650						
benzo(k)fluoranthene							
benzo(a)pyrene							
indeno(1,2,3-cd)pyrene							
dibenzo(a,h)anthracene							
benzo(g,h,i)perylene							
aniline	50/1650	U	U	U	U	U	
benzoic acid							
benzyl alcohol							
4-chloroaniline							
dibenzofuran	10/330						
2-methylnaphthalene							
2-methylphenol							
4-methylphenol							
2-nitroaniline	50/1650						
3-nitroaniline							
4-nitroaniline							
2,4,5-trichlorophenol							

MDL

H_2O/501L

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit. MDL
NA - Not analyzed.
1/ - Tentative identification.
2/ - On NRDC List of Priority Pollutants.

. . cpartment o 'nvironment,
Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020170

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time _____

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	Trip Blank
____ Surface water (2)	____ Liquid (6)	TP-201-TB
____ Soil (3)	____ Sludge (7)	
✓ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-12-97 MJ Lab Number 971700

DHS 3191 (Revised 2/91)

NCDEHNR
Division of Waste Management
☒ Superfund Section
☐ Hazardous Waste Section
☐ Solid Waste Section

Organics Lab: ____
Inorganics Lab: X

CHAIN OF CUSTODY RECORD

Project Name: Triple Plating	Sampled By: Stephanie Kozel
Site ID # (NCD#) NCD 982115 370	Sampler ID ____
Location: Thomasville	Telephone: (919) 733-2801
Address: 27 main St.	Date Sampled: 4-29-97
	Time Sampled: ____

Sample Types: Soil X Water X Waste X Other X (sediment)

Remarks: * may be concentrated waste

Field Sample Numbers: 017151, *017152, 017153, 017154, 017155, 017156, 017157, 017158, 017159, 017160, 017161, 017162, 017163, 017164, 017165, 017166, 017167, 017168, 017169, 017170, 017171, 017172, 017173 SKC

Relinquished By: Stephanie L. Kozel (Signature) Date: 5-1-97 Time: 12:51 pm.

Received By: Joyce Davis (Signature) Date: 5-1-97 Time: 12:51

Relinquished By: ____ (Signature) Date: ____ Time: ____

Received By: ____ (Signature) Date: ____ Time: ____

Relinquished By: ____ (Signature) Date: ____ Time: ____

Received By: ____ (Signature) Date: ____ Time: ____

Results Reported: [signature] (Signature) Date: 1 July 97 Time: ____

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017151

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 10:20 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-001-SL
___ Surface water (2)	___ Liquid (6)	Background by
X Soil (3)	___ Sludge (7)	Cows house.
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(~~mg/l~~)(mg/kg)
X Arsenic	<3.9
X Barium	60
X Cadmium	<9.8
___ Chloride	
X Chromium	<9.8
X Copper	12
___ Fluoride	
___ Iron	
X Lead	35
___ Manganese	
X Mercury	0.07
___ Nitrate	
X Selenium	<2
X Silver	<9.8
___ Sulfates	
X Zinc	41
X pH	5.9
___ Conductivity	
___ TDS	
___ TOC	
X nickel	16

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 006011 MAY 197

Date Analyzed _____ Lab Number _____

HIS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017152

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time _____

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-002-SL
___ Surface water (2)	___ Liquid (6)	Sump area #2
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/kg)
X Arsenic	80
X Barium	120
X Cadmium	12
___ Chloride	
X Chromium	61
X Copper	1200
___ Fluoride	
___ Iron	
X Lead	2200
___ Manganese	
X Mercury	0.38
___ Nitrate	
X Selenium	<2
X Silver	360
___ Sulfates	
X Zinc	2400
X pH	7.6
___ Conductivity	
___ TDS	
___ TOC	
X nickel	290

TCLP Compounds

Inorganic Compounds	Results (mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results (mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed _____ Lab Number _____

005012 MAY 197

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017153

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 11:43 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-003-SL
___ Surface water (2)	___ Liquid (6)	sump #3 (pipe)
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/kg)
X Arsenic	7.8
X Barium	190
X Cadmium	<9.8
___ Chloride	
X Chromium	1100
X Copper	1700
___ Fluoride	
___ Iron	
X Lead	4000
___ Manganese	
X Mercury	0.41
___ Nitrate	
X Selenium	<2
X Silver	810
___ Sulfates	
X Zinc	5200
X pH	7.9
___ Conductivity	
___ TDS	
___ TOC	
X nickel	430

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 006013 MAY 197

Date Analyzed _____ Lab Number _____

LPHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017154

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 11:00 AM

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-004-SL
___ Surface water (2)	___ Liquid (6)	transformer area
X Soil (3)	___ Sludge (7)	(composite)
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Inorganic Chemistry

Parameter	Results ~~(mg/l)~~ (mg/kg)
X Arsenic	<3.9
X Barium	160
X Cadmium	<9.8
___ Chloride	
X Chromium	<9.8
X Copper	180
___ Fluoride	
___ Iron	
X Lead	510
___ Manganese	
X Mercury	0.34
___ Nitrate	
X Selenium	<2
X Silver	100
___ Sulfates	
X Zinc	790
X pH	7.5
___ Conductivity	
___ TDS	
___ TOC	
X nickel	29

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received _____ Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed _____ Lab Number _____

006014 MAY 197

LHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017155

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 10:40 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental		Concentrate		Comments
___	Ground water (1)	X	Solid (5)	TP-005-SL
___	Surface water (2)	___	Liquid (6)	Swingset Composite
X	Soil (3)	___	Sludge (7)	
___	Other (4)	___	Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results ~~(mg/l)~~ (mg/kg)
X Arsenic	<3.9
X Barium	180
X Cadmium	<9.8
___ Chloride	
X Chromium	<9.8
X Copper	210
___ Fluoride	
___ Iron	
X Lead	570
___ Manganese	
X Mercury	0.29
___ Nitrate	
X Selenium	<2
X Silver	55
___ Sulfates	
X Zinc	270
X pH	5.6
___ Conductivity	
___ TDS	
___ TOC	
X nickel	20

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 006015 MAY 197

Date Analyzed _____ Lab Number _____

HS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017156

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 10^45 am

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-006-SL
____ Surface water (2)	____ Liquid (6)	1st sump area
X Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/kg)
X Arsenic	3.9
X Barium	650
X Cadmium	<9.8
____ Chloride	
X Chromium	580
X Copper	19.0
____ Fluoride	
____ Iron	
X Lead	1300
____ Manganese	
X Mercury	0.12
____ Nitrate	
X Selenium	<2
X Silver	24
____ Sulfates	
X Zinc	470
X pH	7.4
____ Conductivity	
____ TDS	
____ TOC	
X nickel	250

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received ____ Reported by ____

Date Extracted ____ Date Reported 006015 MAY 197

Date Analyzed ____ Lab Number ____

HS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017157

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korol ID# _____ Date Collected 4-29-97 Time 1155 AM

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-012-SL
___ Surface water (2)	___ Liquid (6)	"Spill" area
X Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results ~~(mg/l)~~ (mg/kg)
X Arsenic	<3.9
X Barium	370
X Cadmium	<9.8
___ Chloride	
X Chromium	130
X Copper	260
___ Fluoride	
___ Iron	
X Lead	600
___ Manganese	
X Mercury	<0.1
___ Nitrate	
X Selenium	<2
X Silver	63
___ Sulfates	
X Zinc	250
X pH	7.6
___ Conductivity	
___ TDS	
___ TOC	
X Nickel	180

TCLP Compounds

Inorganic Compounds	Results (mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results (mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported _____

006017 MAY 197

Date Analyzed _____ Lab Number _____

MIS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017158

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:45 pm

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-007-SD
___ Surface water (2)	___ Liquid (6)	top of wetland
___ Soil (3)	___ Sludge (7)	
X Other (4) (Sediment)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results ~~(mg/l)~~ (mg/kg)
X Arsenic	<3.9
X Barium	27
X Cadmium	<9.8
___ Chloride	
X Chromium	<9.8
X Copper	37
___ Fluoride	
___ Iron	
X Lead	43
___ Manganese	
X Mercury	<0.1
___ Nitrate	
X Selenium	<2
X Silver	<9.8
___ Sulfates	
X Zinc	65
X pH	7.1
___ Conductivity	
___ TDS	
___ TOC	
X nickel	18

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 005018 MAY 197

Date Analyzed _____ Lab Number _____

LS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017160

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 2:30 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-107-SD
____ Surface water (2)	____ Liquid (6)	top of wetland (dup)
____ Soil (3)	____ Sludge (7)	
X Other (4) (sed.)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results ~~(mg/l)~~ (mg/kg)
X Arsenic	<3.9
X Barium	29
X Cadmium	<9.8
____ Chloride	
X Chromium	<9.8
X Copper	49
____ Fluoride	
____ Iron	
X Lead	55
____ Manganese	
X Mercury	<0.09
____ Nitrate	
X Selenium	<2
X Silver	<9.8
____ Sulfates	
X Zinc	76
X pH	7.0
____ Conductivity	
____ TDS	
____ TOC	
X nickel	22

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received ____ Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed ____ Lab Number ____

006019 MAY 197

LS 3191 (Revised 2/91)

N.C. Department of Environment,
Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number D 17162

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korol ID# _____ Date Collected 4-29-97 Time 2:15 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-009-SD
____ Surface water (2)	____ Liquid (6)	End of wetland
____ Soil (3)	____ Sludge (7)	
X Other (4) (sed)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results ~~(mg/l)~~ (mg/kg)
X Arsenic	<3.9
X Barium	37
X Cadmium	<9.8
____ Chloride	
X Chromium	<9.8
X Copper	160
____ Fluoride	
____ Iron	
X Lead	100
____ Manganese	
X Mercury	<0.09
____ Nitrate	
X Selenium	<2
X Silver	16
____ Sulfates	
X Zinc	74
X pH	7.4
____ Conductivity	
____ TDS	
____ TOC	
X nickel	25

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 20 MAY 197

Date Analyzed _____ Lab Number _____

LS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017165

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 3:50

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-010-SD
___ Surface water (2)	___ Liquid (6)	Upstream N. Hamby
___ Soil (3)	___ Sludge (7)	Creek
X Other (4) (sed)	___ Other (8)	

Organic Chemistry

Parameter	Results (mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/kg)
X Arsenic	<3.9
X Barium	18
X Cadmium	<9.8
___ Chloride	
X Chromium	<9.8
X Copper	20
___ Fluoride	
___ Iron	
X Lead	22
___ Manganese	
X Mercury	<0.09
___ Nitrate	
X Selenium	<2
X Silver	<9.8
___ Sulfates	
X Zinc	47
X pH	7.2
___ Conductivity	
___ TDS	
___ TOC	
X Nickel	16

TCLP Compounds

Inorganic Compounds	Results (mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results (mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 006021 MAY 197

Date Analyzed _____ Lab Number _____

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017172

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 330

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-011-SD
___ Surface water (2)	___ Liquid (6)	Downstream on
___ Soil (3)	___ Sludge (7)	N. Hamby Creek.
X Other (4) (sed)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Inorganic Chemistry

Parameter	Results(mg/kg)
X Arsenic	5.9
X Barium	24
X Cadmium	<9.8
___ Chloride	
X Chromium	<9.8
X Copper	16
___ Fluoride	
___ Iron	
X Lead	71
___ Manganese	
X Mercury	<0.09
___ Nitrate	
X Selenium	<2
X Silver	<9.8
___ Sulfates	
X Zinc	57
X pH	6.8
___ Conductivity	
___ TDS	
___ TOC	
X nickel	12

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 006022 MAY 197

Date Analyzed _____ Lab Number _____

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

RECEIVED
JUN 10 1997
SUPERFUND SECTION

Site Number NCD 982 115 370 Field Sample Number 077159

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# _____ Date Collected 4-24-97 Time 2:25 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-007-SW
X Surface water (2)	X Liquid (6)	Top of Wetland
____ Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (~~mg/kg~~)
X Arsenic	<0.01
X Barium	0.2
X Cadmium	<0.005
____ Chloride	
X Chromium	<0.01
X Copper	0.09
____ Fluoride	
____ Iron	
X Lead	0.024
____ Manganese	
X Mercury	<0.0005
____ Nitrate	
X Selenium	<0.005
X Silver	<0.05
____ Sulfates	
X Zinc	0.08
____ pH	
____ Conductivity	
____ TDS	
____ TOC	
X nickel	<0.05

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 5 June 97

Date Analyzed _____ Lab Number _____

MAY 197

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017161

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:30pm

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-107-SW
X Surface water (2)	X Liquid (6)	top of wetland (dup)
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Inorganic Chemistry

	Parameter	Results(mg/l) (~~mg/kg~~)
X	Arsenic	<0.01
X	Barium	0.1
X	Cadmium	<0.005
___	Chloride	
X	Chromium	<0.01
X	Copper	0.09
___	Fluoride	
___	Iron	
X	Lead	0.020
___	Manganese	
X	Mercury	<0.0005
___	Nitrate	
X	Selenium	<0.005
X	Silver	<0.05
___	Sulfates	
X	Zinc	0.08
___	pH	
___	Conductivity	
___	TDS	
___	TOC	
X	nickel	<0.05

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received _____ Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed _____ Lab Number _____

006001 MAY 197

DHS 3191 (Revised 2-91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017163

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 1:50 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-009-SW
X Surface water (2)	X Liquid (6)	End of Wetland
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (~~mg/kg~~)
X Arsenic	<0.01
X Barium	0.1
X Cadmium	<0.005
___ Chloride	
X Chromium	<0.01
X Copper	<0.05
___ Fluoride	
___ Iron	
X Lead	<0.005
___ Manganese	
X Mercury	<0.0005
___ Nitrate	
X Selenium	<0.005
X Silver	<0.05
___ Sulfates	
X Zinc	<0.05
___ pH	
___ Conductivity	
___ TDS	
___ TOC	
X nickel	<0.05

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 00 MAY 2 MAY 197

Date Analyzed _____ Lab Number _____

DHS 3121 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017164

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korol ID# _____ Date Collected 4-29-97 Time 3:40

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-010-SW
X Surface water (2)	X Liquid (6)	Upstream of N.
___ Soil (3)	___ Sludge (7)	Hamby Creek
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Inorganic Chemistry

Parameter	Results(mg/l)
X Arsenic	<0.01
X Barium	<0.1
X Cadmium	<0.005
___ Chloride	
X Chromium	<0.01
X Copper	<0.05
___ Fluoride	
___ Iron	
X Lead	<0.005
___ Manganese	
X Mercury	<0.0005
___ Nitrate	
X Selenium	<0.005
X Silver	<0.05
___ Sulfates	
X Zinc	<0.05
___ pH	
___ Conductivity	
___ TDS	
___ TOC	
X nickel	<0.05

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received _____ Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed _____ Lab Number _____

00003 MAY 197

DHS 3191 Revised 2/(...)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 0171666

Name of Site Triple Plating Site Location Thomasville, 27 Mani St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time ~~350~~ 320

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-011-SW
X Surface water (2)	X Liquid (6)	Downstream on
___ Soil (3)	___ Sludge (7)	N. Hamby Creek
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Inorganic Chemistry

Parameter	Results(mg/l) (~~mg/kg~~)
X Arsenic	<0.01
X Barium	<0.1
X Cadmium	<0.005
___ Chloride	
X Chromium	<0.01
X Copper	<0.05
___ Fluoride	
___ Iron	
X Lead	<0.005
___ Manganese	
X Mercury	<0.0005
___ Nitrate	
X Selenium	<0.005
X Silver	<0.05
___ Sulfates	
X Zinc	<0.05
___ pH	
___ Conductivity	
___ TDS	
___ TOC	
X nickel	<0.05

Organic Compounds

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 00F005 MAY 197

Date Analyzed _____ Lab Number _____

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017173

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time ____

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	Preservative Blank
___ Surface water (2)	___ Liquid (6)	TP-201-PB
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) (~~mg/kg~~)
X Arsenic	<0.01
X Barium	<0.1
X Cadmium	<0.005
Chloride	
X Chromium	<0.01
X Copper	<0.05
Fluoride	
Iron	
X Lead	<0.005
Manganese	
X Mercury	<0.0005
Nitrate	
X Selenium	<0.005
X Silver	<0.05
Sulfates	
X Zinc	<0.05
pH	
Conductivity	
TDS	
TOC	
X nickel	<0.05

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received ____ Reported by ____

Date Extracted ____ Date Reported ____

005010 MAY 197

Date Analyzed ____ Lab Number ____

DHS 3191 Revised 2-91

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017167

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:25 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-007-SW
X Surface water (2)	X Liquid (6)	top of wetland
___ Soil (3)	___ Sludge (7)	CN sample
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) ~~(mg/kg)~~
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	
X Cyanide	<0.5

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 005005 MAY 197

Date Analyzed _____ Lab Number _____

DHS 3191 (Revised 2/91)

Health, & Natural Resources
Solid Waste Management Division

Division of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017168

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:30 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-107-SW
X Surface water (2)	X Liquid (6)	top of wetland (dup)
____ Soil (3)	____ Sludge (7)	CN sample
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results (mg/l)
____ P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results (mg/l) ~~(mg/kg)~~
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	
X Cyanide	<0.5

TCLP Compounds

Inorganic Compounds	Results (mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results (mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed _____ Lab Number 006008 MAY 197

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017169

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 1:50 pm

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-009-SW
X Surface water (2)	X Liquid (6)	End of wetland
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) ~~(mg/kg)~~
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	
X Cyanide	<0.5

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 006007 MAY 197

Date Analyzed _____ Lab Number _____

LPHS 3191 (Revised 2/91)

Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017170

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 3:40pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-010-SW
X Surface water (2)	X Liquid (6)	Upstream on N.
____ Soil (3)	____ Sludge (7)	Hamby Creek
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) ~~(mg/kg)~~
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	
X Cyanide	<0.5

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received ____ Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed ____ Lab Number ____

00[illegible]08 MAY 197

HS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 017171

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time ~~3:50~~/320

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-011-SW
X Surface water (2)	X Liquid (6)	Downstream N.
___ Soil (3)	___ Sludge (7)	Hunting Creek
___ Other (4)	___ Other (8)	(W)

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l) ~~(mg/kg)~~
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	
X Cyanide	<0.5

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received _____ Reported by _____

Date Extracted _____ Date Reported 006009 MAY 197

Date Analyzed _____ Lab Number _____

DHS 3191 (Revised 2/91)

NCDEHNR
Division of Waste Management
☒ Superfund Section
☐ Hazardous Waste Section
☐ Solid Waste Section

Organics Lab: X
Inorganics Lab: ____

CHAIN OF CUSTODY RECORD

Project Name: Triple Plating	Sampled By: Stephanie Kozel
Site ID # (NCD#) NCD 982 115 370	Sampler ID ____
Location: Thomasville	Telephone: (919) 733-2801
Address: 27 Main St.	Date Sampled: 4-29-97
	Time Sampled: ____

Sample Types: Soil X Water X Waste X Other X Sediment

Remarks: * may be concentrated waste

Field Sample Numbers

020136	020137	*020138	*020139	020140	020141	020142
020143	020144	020145	020146	020147	020148	020149
020150	020151	020152	020153	020154	020155	020156

Relinquished By: Stephanie L. Kozel (Signature) Date: 5-1-97 Time: 1:06 pm

Received By: Vicki S. Painter (Signature) Date: 5-1-97 Time: 1:06 pm

Relinquished By: ____ (Signature) Date: ____ Time: ____

Received By: ____ (Signature) Date: ____ Time: ____

Relinquished By: ____ (Signature) Date: ____ Time: ____

Received By: ____ (Signature) Date: ____ Time: ____

Results Reported: John R. Neal (Signature) Date: 6/09/97 Time: ____

NCDEHNR
Division of Waste Management
☒ Superfund Section
☐ Hazardous Waste Section
☐ Solid Waste Section

Organics Lab: X
Inorganics Lab: ____

CHAIN OF CUSTODY RECORD

Project Name: Triple Plating	Sampled By: Stephanie Kozel
Site ID # (NCD#) NCD982 115 370	Sampler ID ____
Location: Thomasville	Telephone: (919) 733-2801
Address: 27 W. Main St.	Date Sampled: 4-29-97
	Time Sampled: ____

Sample Types: Soil X Water X Waste X Other X

Remarks: ____

Field Sample Numbers							
	020157	020158	020159	020160	020161	020162	020163
	020164	020165	020166	020167	020168	020169	020170

Relinquished By: Stephanie L. Kozel (Signature) Date: 5-1-97 Time: 1:06 pm

Received By: Vicki S. Painter (Signature) Date: 5-1-97 Time: 1:06 pm

Relinquished By: ____ (Signature) Date: ____ Time: ____

Received By: ____ (Signature) Date: ____ Time: ____

Relinquished By: ____ (Signature) Date: ____ Time: ____

Received By: ____ (Signature) Date: ____ Time: ____

Results Reported: John P. Real (Signature) Date: 6/09/97 Time: ____

STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	971666	971668	971670	971672	971674	971676
	FIELD NO	20136	20138	20140	20142	20144	20146
COMPOUND	TYPE	(3)	(3)	(3)	(3)	(3)	(3)
	MDL'S (ppb)	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm
CHLOROMETHANE	20	u	u	u	u	u	u
VINYL CHLORIDE	10	↓	↓	↓	↓	↓	↓
BROMOMETHANE	20	↓	↓	↓	↓	↓	↓
CHLOROETHANE	10	↓	↓	↓	↓	↓	↓
TRICHLOROFLUOROMETHANE	10	↓	↓	↓	↓	↓	↓
ACETONE	20	4 J,C	8 J,C	47	8 J,C	↓	↓
1,1-DICHLOROETHENE	5	u	u	u	u	↓	↓
IODOMETHANE	↓	↓	↓	↓	↓	↓	↓
METHYLENE CHLORIDE	↓	8 C	7 C	trace C	trace C	trace C	↓
CARBON DISULFIDE	↓	trace	1 J	trace	u	u	↓
TRANS-1,2-DICHLOROETHENE	↓	u	u	u	↓	↓	↓
ACRYLONITRILE	20	↓	↓	↓	↓	↓	↓
1,1-DICHLOROETHANE	5	↓	↓	↓	↓	↓	↓
2-BUTANONE	20	↓	↓	11 J	↓	↓	↓
CIS-1,2-DICHLOROETHENE	5	↓	↓	u	↓	↓	↓
CHLOROFORM	↓	↓	↓	↓	↓	↓	↓
1,1,1-TRICHLOROETHANE	↓	↓	↓	↓	↓	↓	↓
CARBON TETRACHLORIDE	↓	↓	↓	↓	↓	↓	↓
BENZENE	↓	↓	↓	trace	↓	↓	↓
1,2-DICHLOROETHANE	↓	↓	↓	u	↓	↓	↓
TRICHLOROETHENE	↓	↓	↓	↓	↓	↓	↓
1,2-DICHLOROPROPANE	↓	↓	↓	↓	↓	↓	↓
BROMODICHLOROMETHANE	↓	↓	↓	↓	↓	↓	↓

C - POSSIBLE LAB CONTAMINATION OR BACKGROUND.
J - Estimated value
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - COMPOUND RELIABLY DETECTABLE ONLY IN HIGH CONCENTRATIONS.
✓ - SAMPLE HIGHLY DILUTED. MDL'S DO NOT APPLY.

(2)

STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	971666	971668	971670	971672	971674	971676
	FIELD NO	20136	20138	20140	20142	20144	20146
COMPOUND	TYPE	(3)	(3)	(3)	(3)	(3)	(3)
	MDL's (ppb)	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm
DIBROMOMETHANE	5	U	U	U	U	U	U
4-METHYL-2-PENTANONE	10			2 J			
CIS-1,3-DICHLOROPROPENE	5		↓	U			
TOLUENE	↓		trace	↓ J			
TRANS-1,3-DICHLOROPROPENE			U	U			
1,1,2,2-TETRACHLOROETHANE			↓	↓			
1,1,2-TRICHLOROETHANE	↓			↓			
2-HEXANONE	10			1 J			
TETRACHLOROETHENE	5			U			
DIBROMOCHLOROMETHANE	↓		↓	↓			
ETHYLENE DIBROMIDE							
CHLOROBENZENE							
1,1,1,2-TETRACHLOROETHANE				↓			
ETHYL BENZENE				trace			
XYLENES				trace			
STYRENE	↓			trace			
BROMOFORM	10			U			
2/ TRANS-1,4-DICHLORO-2-BUTENE	80		↓	↓			
1,2,3-TRICHLOROPROPANE	5						
1,4-DICHLOROBENZENE	↓						
1,2-DICHLOROBENZENE	↓						
1,2-DIBROMO-3-CHLOROPROPANE	20						
VINYL ACETATE	200	↓	↓	↓	↓	↓	↓
Hydrocarbons &	(+)/(−)	(−)	(−)	(+)	(−)	(−)	(−)
other cpds.							

C - POSSIBLE LAB CONTAMINATION OR BACKGROUND.
J - Estimated value
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - COMPOUND RELIABLY DETECTABLE ONLY IN HIGH CONCENTRATIONS.
✓ - SAMPLE HIGHLY DILUTED. MDL'S DO NOT APPLY.

(3)

STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	971678	971680	971682	971684	971686	971688
	FIELD NO	20148	20150	20152	20154	20156	20158
COMPOUND	TYPE	(3)	(3)	(2)	(4)	(2)	(4)
	MDL'S (ppb)	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm
CHLOROMETHANE	20	u	u	u	u	u	u
VINYL CHLORIDE	10	↓	↓	↓	↓	↓	↓
BROMOMETHANE	20	↓	↓	↓	↓	↓	↓
CHLOROETHANE	10	↓	↓	↓	↓	↓	↓
TRICHLOROFLUOROMETHANE	10	↓	↓	↓	↓	↓	↓
ACETONE	20	↓	↓	↓	10 J,C	16 J,C	7 J,C
1,1-DICHLOROETHENE	5	↓	↓	↓	u	u	u
IODOMETHANE	↓	↓	↓	↓	↓	↓	↓
METHYLENE CHLORIDE	↓	↓	↓	↓	trace	1 J,C	↓
CARBON DISULFIDE	↓	↓	↓	trace	u	trace	↓
TRANS-1,2-DICHLOROETHENE	↓	↓	↓	u	↓	u	↓
ACRYLONITRILE	20	↓	↓	↓	↓	↓	↓
1,1-DICHLOROETHANE	5	↓	↓	↓	↓	↓	↓
2-BUTANONE	20	↓	↓	↓	↓	↓	↓
CIS-1,2-DICHLOROETHENE	5	↓	↓	↓	↓	↓	↓
CHLOROFORM	↓	↓	↓	↓	↓	↓	↓
1,1,1-TRICHLOROETHANE	↓	↓	↓	↓	↓	↓	↓
CARBON TETRACHLORIDE	↓	↓	↓	↓	↓	↓	↓
BENZENE	↓	↓	↓	↓	↓	↓	↓
1,2-DICHLOROETHANE	↓	↓	↓	↓	↓	↓	↓
TRICHLOROETHENE	↓	↓	↓	↓	↓	↓	↓
1,2-DICHLOROPROPANE	↓	↓	↓	↓	↓	↓	↓
BROMODICHLOROMETHANE	↓	↓	↓	↓	↓	↓	↓

C - POSSIBLE LAB CONTAMINATION OR BACKGROUND.
J - Estimated value
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - COMPOUND RELIABLY DETECTABLE ONLY IN HIGH CONCENTRATIONS.
✓ - SAMPLE HIGHLY DILUTED. MDL'S DO NOT APPLY.

STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	971678	971680	971682	971684	971686	971688
	FIELD NO	20148	20150	20152	20154	20156	20158
COMPOUND	TYPE	(3)	(3)	(2)	(4)	(2)	(4)
	MDL's (ppb)	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm
DIBROMOMETHANE	5	U	U	U	U	U	U
4-METHYL-2-PENTANONE	10						
CIS-1,3-DICHLOROPROPENE	5						
TOLUENE	↓						
TRANS-1,3-DICHLOROPROPENE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE	✓						
2-HEXANONE	10						
TETRACHLOROETHENE	5						
DIBROMOCHLOROMETHANE	↓						
ETHYLENE DIBROMIDE							
CHLOROBENZENE							
1,1,1,2-TETRACHLOROETHANE							
ETHYL BENZENE							
XYLENES							
STYRENE	✓						
BROMOFORM	10						
2/ TRANS-1,4-DICHLORO-2-BUTENE	80						
1,2,3-TRICHLOROPROPANE	5						
1,4-DICHLOROBENZENE	↓						
1,2-DICHLOROBENZENE	✓						
1,2-DIBROMO-3-CHLOROPROPANE	20						
VINYL ACETATE	200	✓	✓	✓	✓	✓	✓
Hydrocarbons &	(+)/(−)	(−)	(−)	(−)	(−)	(−)	(−)
other cpds.							

C - POSSIBLE LAB CONTAMINATION OR BACKGROUND.
J - Estimated value
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - COMPOUND RELIABLY DETECTABLE ONLY IN HIGH CONCENTRATIONS.
✓ - SAMPLE HIGHLY DILUTED. MDL'S DO NOT APPLY.

STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	971690	971692	971694	971696	971698	971700
	FIELD NO	20160	20162	20164	20166	20168	20170
COMPOUND	TYPE	(2)	(2)	(4)	(2)	(4)	(4)
	MDL's (ppb)	(ppb) ppm	(ppb) ppm	(ppb) ppm	(ppb) ppm	(ppb) ppm	(ppb) ppm
CHLOROMETHANE	20	U	U	U	U	U	U
VINYL CHLORIDE	10						
BROMOMETHANE	20						
CHLOROETHANE	10						
TRICHLOROFLUOROMETHANE	10						
ACETONE	20					7 J,C	
1,1-DICHLOROETHENE	5					U	
IODOMETHANE							
METHYLENE CHLORIDE				trace C			
CARBON DISULFIDE				U			
TRANS-1,2-DICHLOROETHENE							
ACRYLONITRILE	20						
1,1-DICHLOROETHANE	5						
2-BUTANONE	20						
CIS-1,2-DICHLOROETHENE	5				trace		
CHLOROFORM			1 J		1 J		
1,1,1-TRICHLOROETHANE			U		U		
CARBON TETRACHLORIDE							
BENZENE			trace		trace		
1,2-DICHLOROETHANE			U		U		
TRICHLOROETHENE					trace		
1,2-DICHLOROPROPANE					U		
BROMODICHLOROMETHANE							

C - POSSIBLE LAB CONTAMINATION OR BACKGROUND.
J - Estimated value
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - COMPOUND RELIABLY DETECTABLE ONLY IN HIGH CONCENTRATIONS.
✓ - SAMPLE HIGHLY DILUTED, MDL'S DO NOT APPLY.

STATE LABORATORY OF PUBLIC HEALTH
PO BOX 28047 - 306 N. WILMINGTON ST., RALEIGH, NC 27611

ORGANIC CHEMICAL ANALYSIS

PURGEABLE COMPOUNDS	LAB NO	971690	971692	971694	971696	971698	971700
	FIELD NO	20160	20162	20164	20166	20168	20170
COMPOUND	TYPE	(2)	(2)	(4)	(2)	(4)	(4)
	MDL's (ppb)	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm	ppb ppm
DIBROMOMETHANE	5	u	u	u	u	u	u
4-METHYL-2-PENTANONE	10						
CIS-1,3-DICHLOROPROPENE	5						
TOLUENE	↓						
TRANS-1,3-DICHLOROPROPENE	↓						
1,1,2,2-TETRACHLOROETHANE	↓						
1,1,2-TRICHLOROETHANE	↓						
2-HEXANONE	10		↓		↓		
TETRACHLOROETHENE	5		trace		trace		
DIBROMOCHLOROMETHANE	↓		u		u		
ETHYLENE DIBROMIDE	↓		↓		↓		
CHLOROBENZENE	↓		↓		↓		
1,1,1,2-TETRACHLOROETHANE	↓		↓		↓		
ETHYL BENZENE	↓		↓		↓		
XYLENES	↓		↓		↓		
STYRENE	↓		↓		↓		
BROMOFORM	10		↓		↓		
2/ TRANS-1,4-DICHLORO-2-BUTENE	80		↓		↓		
1,2,3-TRICHLOROPROPANE	5		↓		↓		
1,4-DICHLOROBENZENE	↓		↓		↓		
1,2-DICHLOROBENZENE	↓		↓		↓		
1,2-DIBROMO-3-CHLOROPROPANE	20		↓		↓		
VINYL ACETATE	200	↓	↓	↓	↓	↓	↓
Hydrocarbons &	(+)/(−)	(−)	(−)	(−)	(−)	(+) low level	(−)
other cpds.							

C - POSSIBLE LAB CONTAMINATION OR BACKGROUND.
J - Estimated value
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected. The number is the Minimum Detection Limit.
NA - Not analyzed.
1/ - Tentative identification.
2/ - COMPOUND RELIABLY DETECTABLE ONLY IN HIGH CONCENTRATIONS.
✓ - SAMPLE HIGHLY DILUTED, MDL'S DO NOT APPLY.

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

Q EST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020165

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 3:50

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-010-SD
___ Surface water (2)	___ Liquid (6)	Upstream Hamby
___ Soil (3)	___ Sludge (7)	Creek
X Other (4) (sed)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	
X PCB's	<0.10ppm

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by _____

Date Extracted PCB's 5-21-97 VP BNA 5-14-97 BO Date Reported _____

Date Analyzed PCB's 6-3-97 VP BNA 5-23-97 BO Lab Number 971695

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 0201666

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time ~~250~~ 320

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-011-SW
X Surface water (2)	X Liquid (6)	Downstream on
____ Soil (3)	____ Sludge (7)	N. Hamby Creek
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-12-97 MJ Lab Number 971696

DHS 3191 (Revised 2/91)

Health, & Natural Resources
Solid Waste Management Division

oratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115 370 Field Sample Number 020167

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time ~~3:57~~ 3:20

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-011-SW
X Surface water (2)	X Liquid (6)	Downstream m
____ Soil (3)	____ Sludge (7)	N. Hamby Creek
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.0001ppm

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted PCB's 5-20-97 VP, WG; BNA 5/5/97 JPM, WG Date Reported ____

Date Analyzed PCB's 5-22-97 VP; BNA 5-20-97 BD Lab Number 971697

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020168

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 330

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-011-SD
____ Surface water (2)	____ Liquid (6)	Downstream on
____ Soil (3)	____ Sludge (7)	N. Hamby Creek
X Other (4) (sed)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-14-97 TJ Lab Number 971698

DHS 3191 (Revised 2/91)

. . epartment o Environment,
. Health, & Natural Resources
. Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020169

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 339

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-011-SD
____ Surface water (2)	____ Liquid (6)	Downstream on
____ Soil (3)	____ Sludge (7)	N. Hamby Creek
X Other (4) (Sed)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.10ppm

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

PCBs 5-21-97 VP

Date Extracted BNA 5-14-97 BD Date Reported _____

PCBs 6-3-97 VP

Date Analyzed BNA 5-23-97 BD Lab Number 971699

HS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number ~~020153~~ 020154

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Kozel ID# ____ Date Collected 4-29-97 Time 2:30 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-107-SD
____ Surface water (2)	____ Liquid (6)	top of wetland (dup)
____ Soil (3)	____ Sludge (7)	
X Other (4) (sed)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-14-97 NJ Lab Number 371684

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

PL AL SI E T

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115 370 Field Sample Number 020155

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:30 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-107-SD
____ Surface water (2)	____ Liquid (6)	top of wetland (dup)
____ Soil (3)	____ Sludge (7)	
X Other (4) (sed)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.10 ppm

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____
PCB's 5-21-97 VP
Date Extracted BNA 5-14-97 BW Date Reported _____
PCB's 5-23-97 VP
Date Analyzed BNA 5-23-97 BW Lab Number 971685

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020156

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Kozel ID# _____ Date Collected 4-29-97 Time 2:30 pm

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	___ Solid (5)	TP-107-SW
X Surface water (2)	X Liquid (6)	top of wetland (dup)
___ Soil (3)	___ Sludge (7)	
___ Other (4)	___ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
___ Acid:B/N Ext.	
___ MTBE	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-8-97 nJ Lab Number 971686

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115 370 Field Sample Number 020157

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 2:30 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-107-SW
X Surface water (2)	~~X~~ Liquid (6)	top of wetland (dup)
____ Soil (3)	____ Sludge (7)	
~~X~~ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.0001 ppm

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by ____

Date Extracted PCBs 5/20/97 VP, WG; BN/A 5/5/97 JPM, WG; PCBs 5-22-97 VP Date Reported ____

Date Analyzed BNA 5-20-97 RD Lab Number 971687

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020158

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:15 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP-009-SD
____ Surface water (2)	____ Liquid (6)	End of wetland
____ Soil (3)	____ Sludge (7)	
X Other (4) (sed)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-14-97 JJ Lab Number 971588

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115370 Field Sample Number 020159

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 2:15 pm

Agency: ___ Hazardous Waste ___ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
___ Ground water (1)	X Solid (5)	TP-009-SD
___ Surface water (2)	___ Liquid (6)	End of wetland
___ Soil (3)	___ Sludge (7)	
X Other (4) (Sed)	___ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
___ P&T:GC/MS	
X Acid:B/N Ext.	
___ MTBE	
X PCBs	<0.10 ppm

Radiochemistry

Parameter	Results (PCi/l)
___ Gross Alpha	
___ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chloride	
___ Chromium	
___ Copper	
___ Fluoride	
___ Iron	
___ Lead	
___ Manganese	
___ Mercury	
___ Nitrate	
___ Selenium	
___ Silver	
___ Sulfates	
___ Zinc	
___ pH	
___ Conductivity	
___ TDS	
___ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
___ Arsenic	
___ Barium	
___ Cadmium	
___ Chromium	
___ Lead	
___ Mercury	
___ Selenium	
___ Silver	

Organic Compounds	Results(mg/l)
___ benzene	
___ carbon tetrachloride	
___ chlordane	
___ chlorobenzene	
___ chloroform	
___ o-cresol	
___ m-cresol	
___ p-cresol	
___ cresol	
___ 1,4-dichlorobenzene	
___ 1,2-dichloroethane	
___ 1,1-dichloroethylene	
___ 2,4-dinitrotoluene	
___ heptachlor	
___ hexachlorobenzene	
___ hexachlorobutadiene	
___ hexachloroethane	
___ methyl ethyl ketone	
___ nitrobenzene	
___ pentachlorophenol	
___ pyridine	
___ tetrachloroethylene	
___ trichloroethylene	
___ 2,4,5-trichlorophenol	
___ 2,4,6-trichlorophenol	
___ vinyl chloride	
___ endrin	
___ lindane	
___ methoxychlor	
___ toxaphene	
___ 2,4-D	
___ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____
PCB 5-21-97 VP
Date Extracted BNA 5-14-97 BD Date Reported _____
PCBs 6-3-97 VP
Date Analyzed BNA 5-23-97 BD Lab Number 971689

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020160

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 1:50 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-009-SW
X Surface water (2)	X Liquid (6)	End of wetland
____ Soil (3)	____ Sludge (7)	
X Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-8-97 nj Lab Number 971590

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115 370 Field Sample Number 020161

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 1:50pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-009-SW
X Surface water (2)	X Liquid (6)	End of wetland
____ Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.0001ppm

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Date Received 5-1-97 VP Reported by _____

Date Extracted PCB's 5-20-97 VP, WG BNA 5/5/97 WG JTM Date Reported _____

Date Analyzed PCB's 5-22-97 VP BNA 5-20-97 BO Lab Number 971691

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020162

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# _____ Date Collected 4-29-97 Time 3:40 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-010-SW
X Surface water (2)	X Liquid (6)	Upstream N. Hamby Creek
____ Soil (3)	____ Sludge (7)	
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by _____

Date Extracted _____ Date Reported _____

Date Analyzed 5-12-97 MJ Lab Number 971592

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD982115 370 Field Sample Number 020163

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 3:40 pm

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	____ Solid (5)	TP-010-SW
X Surface water (2)	X Liquid (6)	Upstream of N.
____ Soil (3)	____ Sludge (7)	Hamby Creek
____ Other (4)	____ Other (8)	

Organic Chemistry

Parameter	Results(mg/l)
____ P&T:GC/MS	
X Acid:B/N Ext.	
____ MTBE	
X PCB's	<0.0001 ppm

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

PCB's 5-20-97 VP WG

Date Extracted BNA 5/5/97 WG, JPM Date Reported ____

PCB's 5-22-97 VP

Date Analyzed BNA 5-20-97 BO Lab Number 971693

DHS 3191 (Revised 2/91)

N.C. Department of Environment, Health, & Natural Resources
Solid Waste Management Division

SAMPLE ANALYSIS REQUEST

State Laboratory of Public Health
P.O. Box 28047, 306 N. Wilmington Street
Raleigh, North Carolina 27611

Site Number NCD 982 115 370 Field Sample Number 020164

Name of Site Triple Plating Site Location Thomasville, 27 Main St.

Collected By Stephanie Korel ID# ____ Date Collected 4-29-97 Time 350

Agency: ____ Hazardous Waste ____ Solid Waste X Superfund

Sample Type

Environmental	Concentrate	Comments
____ Ground water (1)	X Solid (5)	TP. 010-SO
____ Surface water (2)	____ Liquid (6)	Upstream Hamby
____ Soil (3)	____ Sludge (7)	Creek
X Other (4) (sed)	____ Other (8)	

TCLP Compounds

Inorganic Compounds	Results(mg/l)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chromium	
____ Lead	
____ Mercury	
____ Selenium	
____ Silver	

Organic Chemistry

Parameter	Results(mg/l)
X P&T:GC/MS	
____ Acid:B/N Ext.	
____ MTBE	

Radiochemistry

Parameter	Results (PCi/l)
____ Gross Alpha	
____ Gross Beta	

Microbiology

Parameter	Results (Col/100ml)

Inorganic Chemistry

Parameter	Results(mg/l)(mg/kg)
____ Arsenic	
____ Barium	
____ Cadmium	
____ Chloride	
____ Chromium	
____ Copper	
____ Fluoride	
____ Iron	
____ Lead	
____ Manganese	
____ Mercury	
____ Nitrate	
____ Selenium	
____ Silver	
____ Sulfates	
____ Zinc	
____ pH	
____ Conductivity	
____ TDS	
____ TOC	

Organic Compounds	Results(mg/l)
____ benzene	
____ carbon tetrachloride	
____ chlordane	
____ chlorobenzene	
____ chloroform	
____ o-cresol	
____ m-cresol	
____ p-cresol	
____ cresol	
____ 1,4-dichlorobenzene	
____ 1,2-dichloroethane	
____ 1,1-dichloroethylene	
____ 2,4-dinitrotoluene	
____ heptachlor	
____ hexachlorobenzene	
____ hexachlorobutadiene	
____ hexachloroethane	
____ methyl ethyl ketone	
____ nitrobenzene	
____ pentachlorophenol	
____ pyridine	
____ tetrachloroethylene	
____ trichloroethylene	
____ 2,4,5-trichlorophenol	
____ 2,4,6-trichlorophenol	
____ vinyl chloride	
____ endrin	
____ lindane	
____ methoxychlor	
____ toxaphene	
____ 2,4-D	
____ 2,4,5-TP (Silvex)	

Date Received 5-1-97 VP Reported by ____

Date Extracted ____ Date Reported ____

Date Analyzed 5-14-97 TJ Lab Number 971694

DHS 3191 (Revised 2/91)

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REFERENCES

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March 1995
EPA HRS training

Ref. 1

federal register

Friday
December 14, 1990

Part II

Environmental Protection Agency

40 CFR Part 300
Hazard Ranking System; Final Rule

Ref. 2

SUPERFUND CHEMICAL DATA MATRIX

APPENDIX B TABLES

HAZARD RANKING SYSTEM
Hazardous Substance Factor Values
376 Substances

Substance Name	CAS Number	Toxicity	Ground Water Mobility: Liquid: Karst	Ground Water Mobility: Liquid: Non-Karst	Ground Water Mobility: Non-Liquid: Karst	Ground Water Mobility: Non-Liquid: Non-Karst	Persistence: River	Persistence: Lake	Bioaccumulation: Food Chain: Fresh	Bioaccumulation: Food Chain: Salt	Bioaccumulation: Environmental: Fresh	Bioaccumulation: Environmental: Salt	Ecotoxicity: Fresh	Ecotoxicity: Salt	Air Gas Migration	Air Gas Mobility	Gas	Part
Acenaphthene	000083-32-9	10	1.0E+00	1.0E-02	2.0E-01	2.0E-03	0.4000	0.4000*	500.0	500.0	500.0	500.0	10000	100	11	0.2000	Yes	Yes
Acenaphthylene	000208-96-8	...	1.0E+00	1.0E+00*	2.0E-01	2.0E-01*	0.4000*	1.0000	500.0	500.0	500.0	500.0	...	...	11	0.0200	Yes	Yes
Acetaldehyde	000075-07-0	1000	1.0E+00	1.0E+00	1.0E+00	1.0E+00	0.4000	0.0700	0.5	0.5	0.5	0.5	10	10	17	1.0000	Yes	No
Acetone	000067-64-1	10	1.0E+00	1.0E+00	1.0E+00	1.0E+00	0.4000*	0.0700	0.5	0.5	0.5	0.5	100	1	17	1.0000	Yes	No
Acetonitrile	000075-05-8	100	1.0E+00	1.0E+00	1.0E+00	1.0E+00	0.4000*	0.0700	0.5	0.5	0.5	0.5	1	1	17	1.0000	Yes	No
Acetophenone	000098-86-2	10	1.0E+00	1.0E+00	1.0E+00	1.0E+00	1.0000	1.0000	5.0	5.0	5.0	5.0	1	1	11	1.0000	Yes	No
Acetyl-2-thiourea, 1-	000591-08-2	10	1.0E+00	...	...	...	1.0000	1.0000	0.5	0.5	0.5	0.5	...	...	NA	NA	No	Yes
Acrolein	000107-02-8	10000	1.0E+00	1.0E+00	1.0E+00	1.0E+00	0.0700	0.0700	500.0	500.0	500.0	500.0	10000	1000	17	1.0000	Yes	No
Acrylamide	000079-06-1	10000	1.0E+00	1.0E+00	1.0E+00	1.0E+00	1.0000	1.0000	5.0	5.0	5.0	5.0	10	10	6	0.2000	Yes	Yes
Acrylic acid	000079-10-7	10000	1.0E+00	1.0E+00	1.0E+00	1.0E+00	1.0000	0.4000*	0.5	0.5	0.5	0.5	...	...	11	1.0000	Yes	No
Acrylonitrile	000107-13-1	1000	1.0E+00	1.0E+00	1.0E+00	1.0E+00	0.4000	0.0700	50.0	50.0	50.0	50.0	100	100*	17	1.0000	Yes	No
Adipic acid	000124-04-9	1	1.0E+00	1.0E+00	1.0E+00	1.0E+00	1.0000*	0.4000*	0.5	0.5	0.5	0.5	10	10	6	0.2000*	Yes	Yes
Aldicarb	000116-06-3	1000	1.0E+00	1.0E+00	1.0E+00	1.0E+00	1.0000*	1.0000*	5.0	5.0	5.0	5.0	10000	10000	6	0.0200	Yes	Yes
Aldrin	000309-00-2	10000	1.0E+00	1.0E-04	2.0E-03	2.0E-07	1.0000	1.0000	50000.0*	50000.0*	50000.0	50000.0	10000	10000	6*	0.0020*	Yes	Yes
Allyl alcohol	000107-18-6	100	1.0E+00	1.0E+00	1.0E+00	1.0E+00	1.0000	0.4000	0.5	0.5	0.5	0.5	1000	1000	11	1.0000	Yes	No
Allyl chloride**	000107-05-1	10000	1.0E+00	1.0E+00	1.0E+00	1.0E+00	0.4000	0.4000	5.0	5.0	5.0	5.0	1000	1000	17	1.0000	Yes	No
Aluminum	007429-90-5	...	1.0E+00	1.0E-04*	...	...	1.0000	1.0000	50.0	50.0	50.0	50.0	100*	100*	NA	NA	No	Yes
Aluminum phosphide	020859-73-8	10000	1.0E+00	...	...	...	1.0000	1.0000	0.5	0.5	0.5	0.5	...	...	NA	NA	No	Yes
Ammonia	007664-41-7	100	1.0E+00	1.0E+00	1.0E+00	1.0E+00	0.0007	0.0700	0.5	0.5	0.5	0.5	100*	100*	17	1.0000	Yes	No

* Indicates difference between previous version of chemical data (JUN94) and current version of chemical data (JUN96).
** Indicates new hazardous substance in current version of chemical data (JUN96).

7.5 USGS Quad maps of Midway , High Point West, Lexington, and Fair Grove, NC.

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2
LI USING ENGINEER'S SCALE (1/60)

SITE NAME: Triple Plating CERCLIS #: NCD 982 115 370

AKA: SSID:

ADDRESS: 27 W. Main Street

CITY: Thomasville STATE: NC ZIP CODE:

SITE REFERENCE POINT: center of property

USGS QUAD MAP NAME: High Point West Quad TOWNSHIP: ____ N/S RANGE: ____ E/W

SCALE: 1:24,000 MAP DATE: _____ SECTION: ____1/4 ____1/4 ____1/4

MAP DATUM: 1927 1983 (CIRCLE ONE) MERIDIAN:

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy):

LONGITUDE: 80 ° 00 ' 00 " LATITUDE: 35 ° 52 ' 30 "

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 80 ° 02 ' 30 " LATITUDE: 35 ° 52 ' 30 "

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRID LINE TO SITE REF POINT: 70

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A x 0.3304 = 23 . 13 "

C) EXPRESS IN MINUTES AND SECONDS (1'= 60"): 0 ' 23 . 13 "

D) ADD TO STARTING LATITUDE: 35 ° 52 ' 30 . 00 " + 0 ' 23 . 13 = 35°52'53.13"

SITE LATITUDE: 35 ° 52 ' 53 . 13 "

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 7

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A x 0.3304 = 2 . 31 "

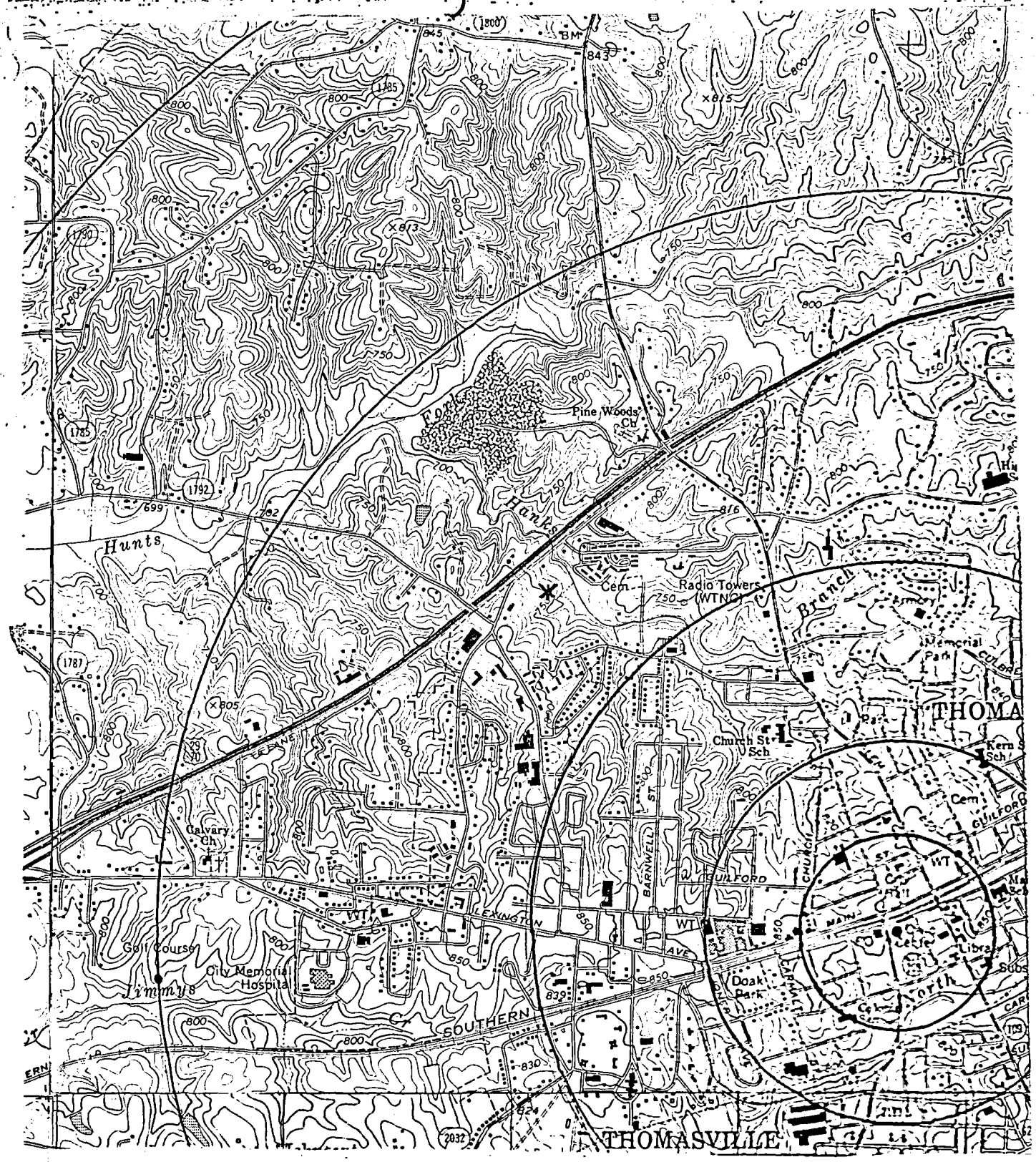
C) EXPRESS IN MINUTES AND SECONDS (1'= 60"): 0 ' 2 . 31 "

D) ADD TO STARTING LONGITUDE: 80 ° 05 ' 00 . 00 " + 0 ' 2 . 31 = 80°05'2.31"

SITE LONGITUDE: 80 ° 05 ' 2 . 31 "

INVESTIGATOR: Stephanie Kozel DATE: 4-14-97

SITE NAME: Triple Plating NUMBER: NCD982 115 370



TOPOGRAPHIC MAP QUADRANGLE NAME: High Point West SCALE: 1:24,000

COORDINATES OF LOWER RIGHT-HAND CORNER OF 2.5-MINUTE GRID:

LATITUDE: 35 ° 52 · 30 · LONGITUDE: 80 ° 02 · 30 ·

Ref. 5

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

December 6, 1996

Ms. Cindy Gurley
NC CERCLA Project Officer
US EPA Region IV Waste Division
Atlanta Federal Building, 11th floor
100 Alabama St. SW
Atlanta, GA 30303-3104

Subject: CERCLIS Site Addition
Triple Plating, NCD 982 115 370
Thomasville, Davidson County, NC

Dear Ms. Gurley:

Please add the subject site to CERCLIS. Preliminary data gathering has established the following about this site:

1. The site name is Triple Plating. The site is located in downtown Thomasville, NC at 27 W. Main Street on the southeast corner of the Fisher Ferry Rd. and W. Main St. intersection. The coordinates of the site are 35°52'55' north latitude and 80°04'55.1 west longitude.

2. The site is the former location of Triple Plating, Inc, a metal-plating facility. Prior to this, the site had housed a mirror manufacturing plant. Triple Plating was a listed as a RCRA generator assigned EPA ID #NCD 982 115 370. Plating operations ceased in 1990 and the site was abandoned. A RCRA Notice of Violation was sent to the owner and to the operator of the facility to address electroplating process tanks, drums and filter cake sludges abandoned on site. These wastes contained chromium, acids, copper, nickel and cyanides. Some of the wastes were removed by the former operator in 1991-92 and the removal was completed by contractors for the owner in December 1995. The building that was on site has been demolished and the property is unvegetated and accessible.

P.O. Box 27687,
Raleigh, North Carolina 27611-7687
Voice 919-733-4996

NC
Reduce Reuse Recycle

FAX 919-715-3605
An Equal Opportunity Affirmative Action Employer
50% recycled/10% post-consumer paper

3. Although all hazardous wastes have been removed from the site, neither the site soils nor the soil along the surface water runoff pathway from the site have been tested. A residence is adjacent to the property and there is a child's swingset at the property boundary. Due to the residential/commercial use of the surrounding properties, the potential for soil exposure should be investigated to protect human health. Groundwater use in the vicinity has not been investigated and a well survey should be conducted.

Attached is a CERCLIS site addition sheet, a map showing the site location, the latitude/longitude calculation sheet, and some supporting documentation . If you have any questions, please call me at (919) 733-2801, ext. 290.

Sincerely,

Pat DeRosa, Head
Site Evaluation and Removal Branch
Superfund Section

Attachments

cc: Jeanette Stanley
Scott Ross (w/o attachments)
File
Mr. Joseph McNulty
Mr. Steve Phibbs (w/o attachments)

MEMO

DATE: October 21, 1996

TO: File

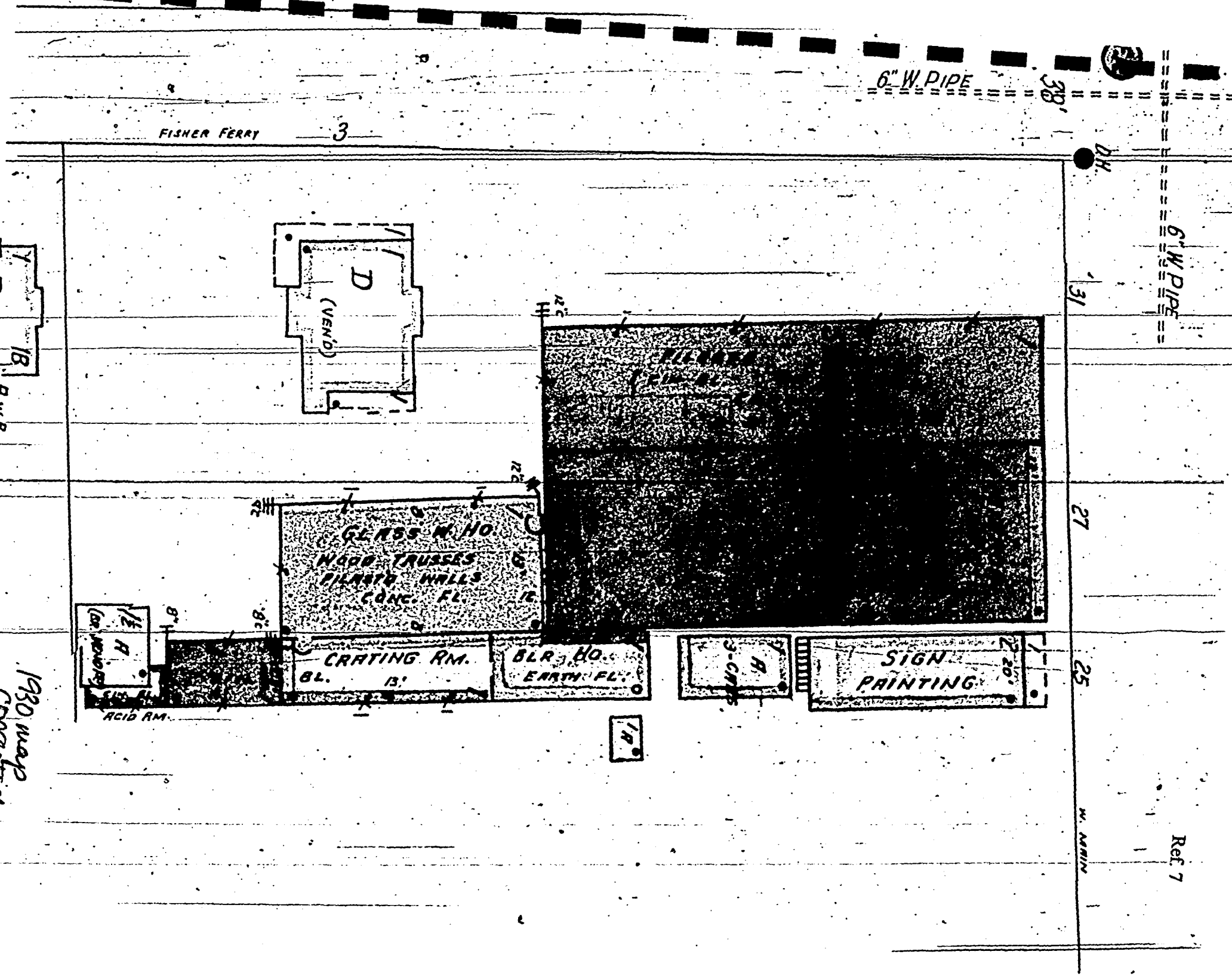
FROM: Jeanette Stanley, Environmental Chemist, NC Superfund Section

RE: Triple Plating
Thomasville, Davidson County, NC

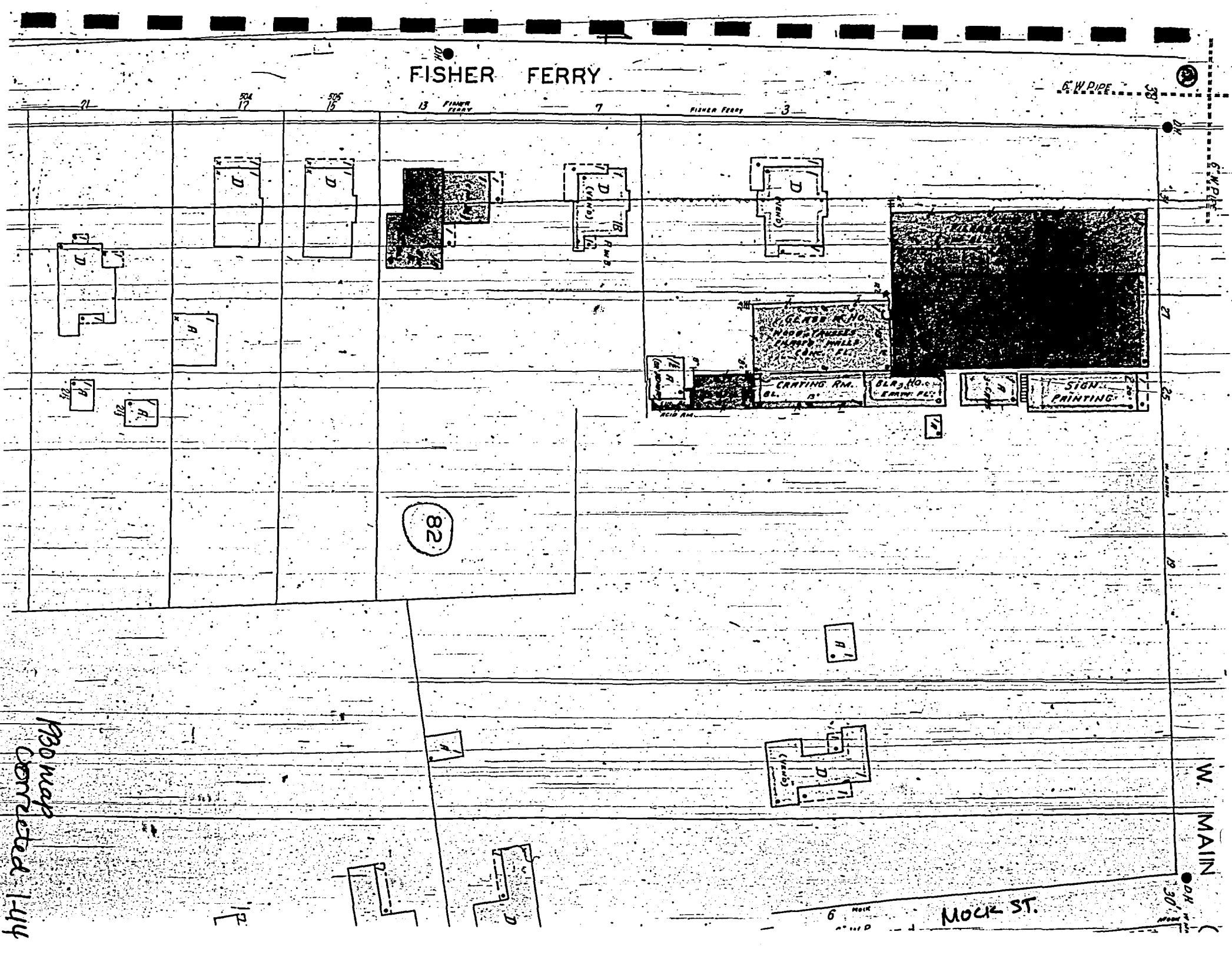
The site is located on the High Point West, NC USGS topographic map at 27 West Main Street in Thomasville,.NC. I traced the surface water pathway draining from the site using the USGS topographic maps (High Point West, Fair Grove and Lexington East). Overland flow enters North Hamby Creek about 1000' downgradient from the site. North Hamby Creek empties into Hamby Creek 3 1/2 miles below the PPE. At 9 miles below the PPE, the surface water draining the site enters Rich Fork Creek and in another mile, Rich Fork Creek enters Abbots Creek. The surface water pathway ends on Abbots Creek about 500' downstream of Raleigh Road in Lexington.

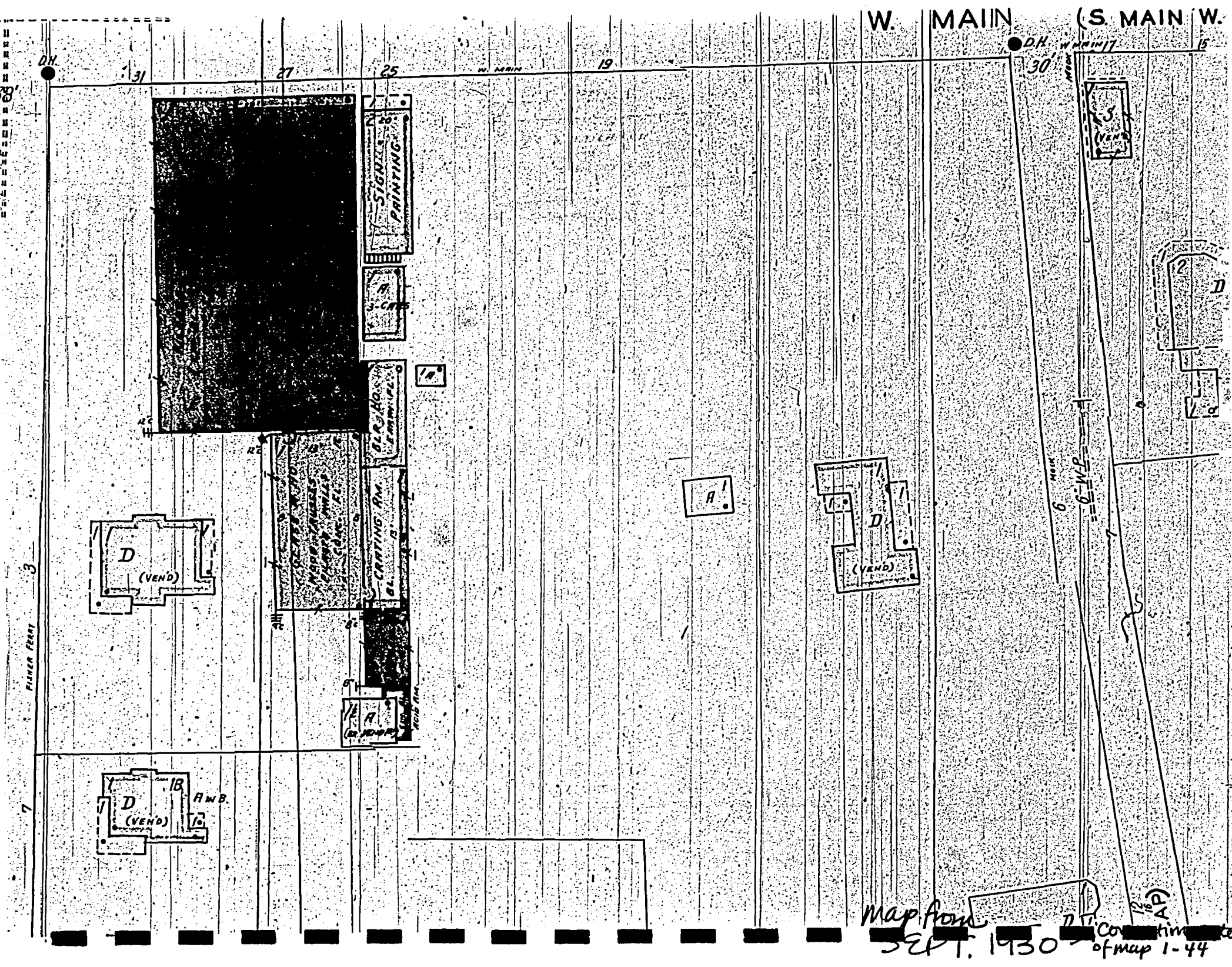
On October 18, 1996, I called Mike Mickey , Environmental Specialist in the Winston-Salem Regional Office. He said that there are no surface water intakes in the surface water pathway. Mr. Mickey said that there is a surface water intake on Tom-A-Lex Lake which is along Abbots Creek, but upstream of the confluence of Rich Fork Creek with Abbots Creek. The next surface water intake is about 30 miles downstream on High Rock Lake. Mr. Mickey said that there are three wastewater treatment plant discharges into this surface water pathway.

I reviewed the wetland inventory maps (High Point West and Fair Grove) for the first 4 miles of the surface water pathway. Most of North Hamby Creek is shown as a linear wetland, classified as a PFO1A wetland (Palustrine Forested wetland). This PFO1A wetland begins about 1/2 mile below the PPE. Past experience with this type of linear wetland in developed areas is that they do not qualify as wetlands based on vegetation and a Corps of Engineers definition.

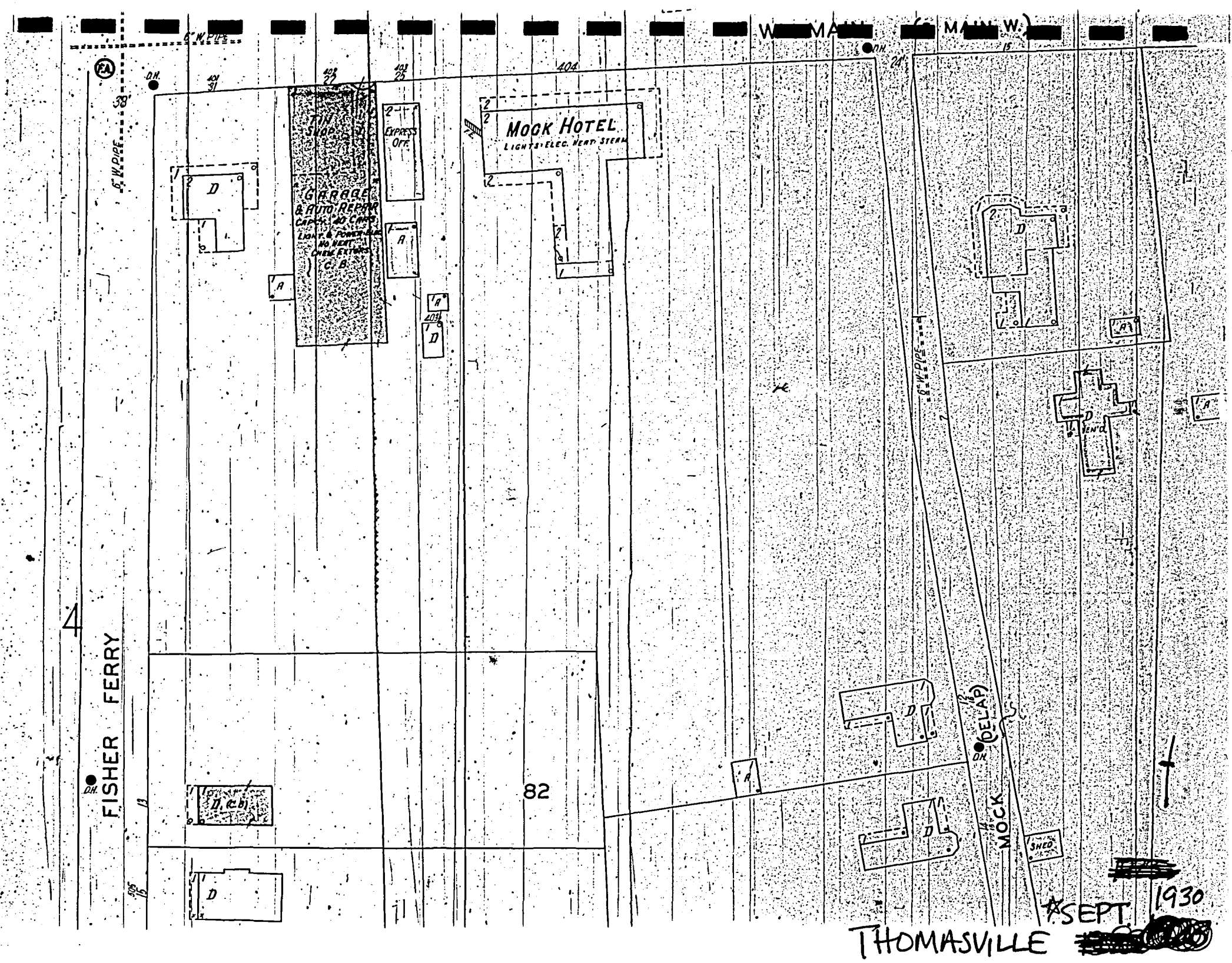

6" W. PIPE
38'
FISHER FERRY
3
D.H.
6" W. PIPE
31
27
25
W. MAIN
D
(VEN'D)
GLASS W. HO.
WOOD TRUSSES
PILASTR HALLS
CONC. FL.
CRATING RM.
BL.
B'
BLR. HO.
EARTH FL.
H
C-CHAIS
SIGN
PAINTING
20'
H
(OR WOOD)
ACID RM.
8"
12"
1B
A IN B.
1930 map
Correct

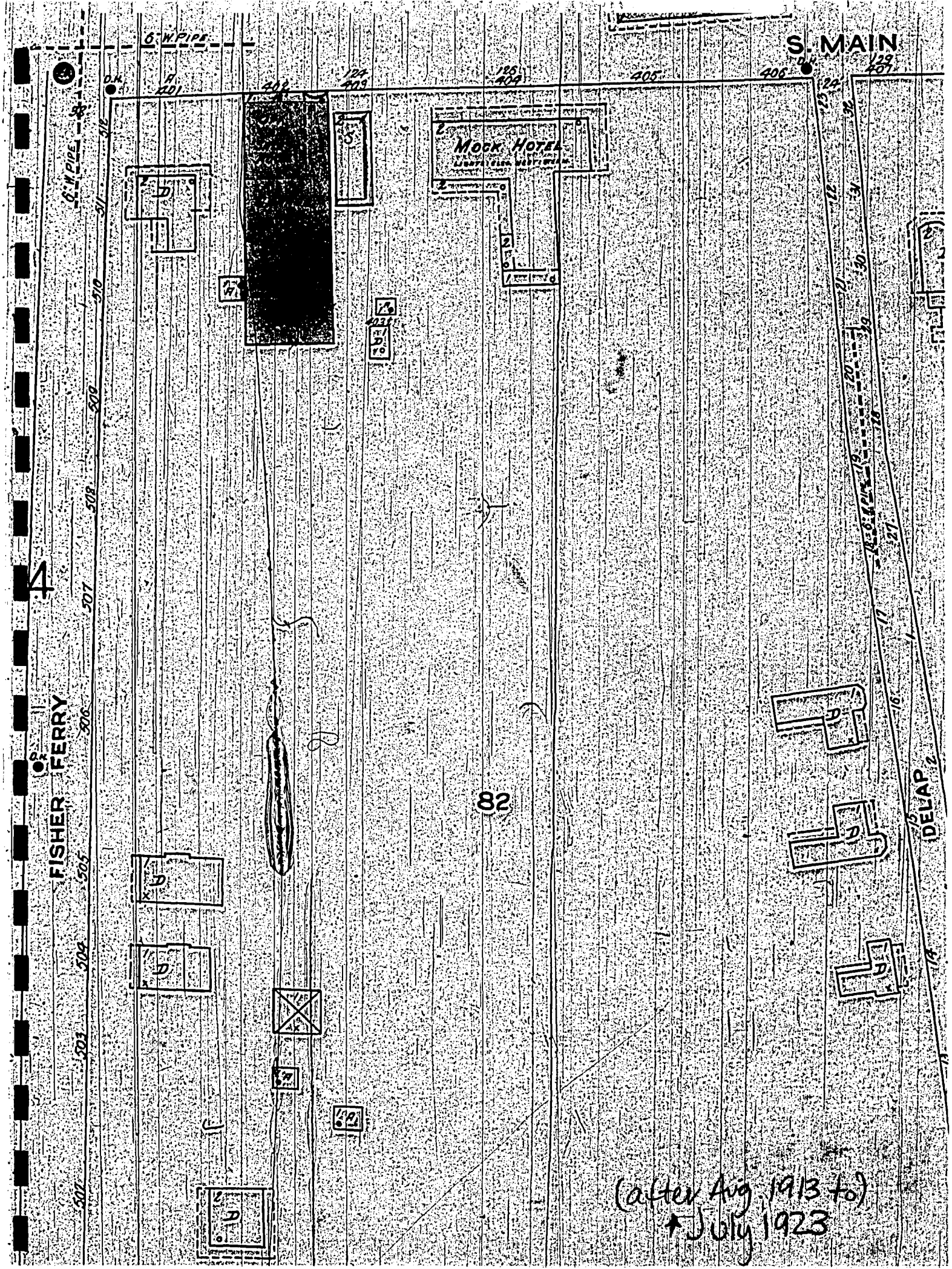
Ref. 7


FISHER FERRY
6" W. PIPE
FISHER FERRY
FISHER FERRY
GLASS HO.
CASTING RM.
BLAS. HO.
SIGN PAINTING
82
W. MAIN
MOCK ST.
B30 map corrected 1-44



Map from SEPT. 1930 [redacted] Co[redacted]tim[redacted]e of map 1-44


W. MAIN (MAIN W.)
404
MOCK HOTEL
LIGHTS-ELEC. HEAT-STEAM
TIN SHOP
GARAGE & AUTO REPAIR
EXPRESS OFF.
FISHER FERRY
82
MOCK
(DELAP)
SHED
6" W. PIPE
D.H.
FA
SEPT 1930
THOMASVILLE


S. MAIN
6" W. PIPE
MOCK HOTEL
FISHER FERRY
DELAP
82
(after Aug. 1913 to)
July 1923

MEMORANDUM

DATE: June 18, 1997

TO: File

FROM: Stephanie L. Kozel
Hydrogeologist SLK.
NC Superfund Section

RE: Telecon. with Robert Stroupe of Stroupe Mirror Co.
Triple Plating, Thomasville, Davidson County
NCD #982 115 370

On June 18, 1997, I spoke with Mr. Robert Stroupe, president of Stroupe Mirror Company, Thomasville, NC (910-475-2181). He stated that he had worked at the mirror manufacturer starting in 1946. His father started the company in 1932 on 27 West Main Street in Thomasville, the location of the Triple Plating facility. Mrs. Stroupe, mother of Robert Stroupe, bought a section of the property in 1930 from a car dealership/repair shop. Mr Privo, of Thomasville, NC, bought the remaining property from the dealership. When Mrs. Stroupe passed away in 1971, her portion of the property was sold to Mr. Privo. Mr. Privo leased the property to Stroupe Mirror until they moved to their new location, 102 East Holly Hill, Thomasville in 1971. Mr. Stroupe stated that after they relocated, he is not certain about the transfer of the property but that he believes Mr. Privo sold the property to a woman, possibly Ms. Perry, in 1972 or 1973.

Stroupe Mirror manufactured mirrors for the furniture industries within Thomasville since 1931 to present. The processes for manufacturing mirrors at Stroupe is as follows: Glass blanks were purchased and cleaned, silver was applied to the glass by the precipitation of silver nitrate. The silver and silver nitrate were reused and recycled in the manufacturing process. The unusable waste was discharged into the city wastewater treatment facility in Thomasville. Once the silver is applied, the mirror backing was painted with black spray paint. Mr. Stroupe stated that the chemicals used and waste produces in the process were silver, silver nitrate, stannous chloride (a sensitizing agent to help the silver adhere to the glass), and acid (which he believed was nitric).

I reviewed the Hazardous Waste Section files for information pertaining to Stroupe Mirror. They are a small quantity generator and currently produce several waste products which are either recycled or disposed of in a lined hazardous waste landfill. Files from 1987-1988 indicate waste generated also includes paint thinner for clean-up (n-butyl acetate), glass cleaner (propyl acetate), mirror cullet, and paint solids. Stroupe Mirror was in violation of Hazardous Waste Management rules (did not submit annual report to the DEHNR) and was fined in 1987.

NCD003215456

Copied for Jerry

RECEIVED
AUG 22 1991
SOLID WASTE MANAGEMENT DIVISION

✓ Keith
(12)
SG

SMC STROUPE MIRROR COMPANY

HOLLY HILL ROAD, P. O. BOX 728 THOMASVILLE, NORTH CAROLINA 27360 PHONE (919) 475-2181

August 12, 1991

Mr. William Meyer
N.C. Dept. of EHNR
Division of Solid Waste Management
P.O. Box 27687
Raleigh, NC 27611-7687

Subject: TCLP, Lead analysis on mirror cullet.

Dear Mr. Meyer,

Please find enclosed the data that you requested in your April 1, 1991 letter to Stroupe Mirror Company. Individual data points are identified by date of sample collection, date of analysis, and lot number. All sample data represent analysis of differing lots of mirror cullet. Statistical analysis of the data includes the arithmetic mean and standard deviation.

The waste stream characterization was done as an extension of the methodology previously submitted in February 1991 to Mr. Stephen Phibbs, NCDEM Winston Salem regional office. Cullet generation data was compiled from our silvering and cutting departments. Rejected mirror weights, salvaged mirror weights, and remaining scrap weight data of each different thickness of mirror was utilized to calculate our waste stream composition. Running averages over a one year period of the generation of mirror cullet were used.

Strips of cullet were prepared of each thickness and combined to meet the specifications of the waste stream characterization. No clear glass was included in this characterization, since we historically have separated and recycled our clear cullet.

Analyses were performed by Research and Analytical Laboratories of Kernersville, NC. (certification #34)

I sincerely hope that this data fills the needs of your department. If you have any questions or need any further information concerning this project, do not hesitate to call me at (919) 475-2181.

Sincerely,

Kelly Craver

Kelly Craver, Environmental Manager

MIRRORS • STOCK SHEETS • CUT SIZES • BEVELED STRIPS • CLEAR AND TINTED • *FABRICATED GLASS* • TABLE TOPS • SHELVING • CABINET DOORS

Lot	Date Collected	Date Analyzed	TCLP;Lead mg/l
01	5-17-91	5-21-91	3.40
02	5-23-91	5-25-91	4.42
03	5-28-91	5-31-91	4.77
04	6-05-91	6-08-91	2.98
05	6-11-91	6-15-91	4.35
06	6-12-91	6-15-91	4.39
07	6-24-91	7-02-91	3.74
08	6-28-91	7-02-91	3.40
09	7-09-91	7-13-91	4.30
10	7-10-91	7-13-91	3.70
11	7-15-91	7-27-91	2.07
12	7-16-91	7-27-91	2.10
13	7-23-91	8-02-91	2.30
14	7-24-91	8-02-91	3.20
15	7-31-91	8-02-91	2.60
16	8-01-91	8-02-91	3.40

Arithmetic Mean; 3.45 mg/l

Standard Deviation; 0.87

N. C. DEPARTMENT OF HUMAN RESOURCES

DIVISION OF HEALTH SERVICES

N. C. 1987 HAZARDOUS WASTE GENERATOR ONLY ANNUAL (PART A) REPORT *

RECEIVED APR 25 1988 HAZARDOUS WASTE MANAGEMENT

(10)

Four Digit Standard Industrial Classification (SIC) No. For Operations In Your Company That Generated The Waste 3231

I. Installation EPA ID Number: NCD003215456

II. Name of Installation: STROUPE MIRROR COMPANY

III. Location of Installation: 102 E. HOLLY HILL ROAD
(Street or Route Number)

THOMASVILLE, DAVIDSON N.C. 27360
(City or Town) (County) (State) (Zip Code)

IV. Installation Contact: ROBERT E. STROUPE 919 475-2181
(Name) (Area Code) (Phone Number)

V. Waste Identification:

	A. EPA Waste No.	B. Description of Waste/ Chemical Name	1. Remedial Action Waste	C. Quantity Generated (LBS)	D. Handling Method/Quantity/Location Waste Shipped to: 1. Handling Method Code	2. Quantity Shipped to TSD or Recovery Facility (LBS)	3. TSD Facility EPA ID No./ Recovery Facility Name	E. In Storage ~~December~~ MARCH 31, 1987: 1. Storage Method Code	2. Quantity (LBS)
1	D001	PAINT THINNER		1,100	T05	-0-		S01	800
2		USED FOR CLEAN							
3		UP. BUTYL ACE-							
4		TATE WITH							
5		PIGMENT FROM							
6		MIRROR BACKING							
7		PAINT							
8	D001	PAINT SOLIDS	R	350	D80	-0-		S01	90
9		LEFT AFTER							
10		DISTILLATION							
11		OF ABOVE							
12		THINNERS							

If more space is needed check ____ and complete attachment 1

VI. List EPA ID Numbers for each Transporter used during reporting year: _____

VII. CERTIFICATION: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Robert E. Stroupe (Signature) ROBERT E. STROUPE (Print or Type Name) 3-25-88 (Date Signed)

*Read Instructions before completing form

DHS 3036 (Revised 1-88) Do. No. 0351A
Hazardous Waste Management Branch

NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES
SOLID AND HAZARDOUS WASTE MANAGEMENT BRANCH
P.O. BOX 2091 RALEIGH, NORTH CAROLINA 27602-2091
306 N.WILMINGTON STREET

DOCKET #

INSPECTION AND EVALUATION REPORT

EPA ID:# NCD003215456 FACILITY NAME: Stroupe Printing Co.

ADDRESS: 102 East Holly Hill Rd CITY: Thomasville

NEW: ✓ UPDATE: ____ DATE OF INITIAL EVALUATION: 8 31 88 STAFF ID: 21

RESPONSIBLE AGENCY: S S = STATE E = EPA X = OVERSITE O = OTHER

TYPE OF EVALUATION COVERED BY THIS REPORT: ENTER ONE: 1

1= COMPLIANCE EVAL. INSP.(CEI)
2= SAMPLING INSPECTION
3= RECORD REVIEW
4= COMP.GWM EVAL.(CME)
5= COMPLIANCE SCHED. (FOLLOW UP)
6= CITIZEN COMPLAINT
7= PART B CALL-IN
8= WITHWRAWAL CAND.
9= CLOSED FACILITY
10= GENERAL
11= CASE DEVELOPMENT
12= O & M INSPECTION
80= INFORMAL MEETING

DATE OF EVALUATION COVERED BY THIS REPORT: ____

CLASS OF VIOLATION — VIOLATIONS/RELEASES

CLASS	GWM/RLSE	C/CP	FIN	PT.B	CMPL.SCH	MANIFEST	OT	LAND BAN
I						0	0	
II							0	

ACCEPTABLE CODES

X S Z O R* B*	X S Z O	X S Z O I*B*	X S Z O	X S Z O C B	X S Z O	X S Z O	X S Z O

KEY
X = VIOLATIONS O = NO VIOLATION Z = PENDING
B = VIOL. & SPECIALTY; S = SAME VIOL./SPEC.

SPECIALTIES
I = NO insurance only; C = CA SCHED. VIOL.
R = 3008(h)-like release; * = CLASS I only

ENFORCEMENT ACTIONS:(AREA OF VIOL./RLSE.=GW, CP, FR, PB, CS, MA, OT, LB, or AA

CLASS	AREA OF VIOL.	TYPE CODE	DATE ACTION TAKEN	COMPLIANCE DATES SCHED.	ACTUAL	PENALTY ASSES.	COLL.	RESP AG.

CODES FOR TYPES OF ENFORCEMENT ACTIONS:
03 =WARNING LETTER/NOV
04 =ADMIN. COMPLAINT
05 =FINAL ADMIN. ORDER
10 =INFORMAL
11 = FILED CIVIL ACTION
12 = FILED CRIMIMAL ACTION
13 = CIVIL REFERRAL TO AG
90 = HEARING

COMMENTS; ____

North Carolina Department of Human Resources
Division of Health Services

COUNTY OF DAVIDSON EPA I.D.# NCD003215456

SMALL HAZARDOUS WASTE GENERATOR SURVEY

1. GENERAL INFORMATION:

Name of Facility: STROUPE MIRROR COMPANY

Facility Contact: ROBERT STROUPE Phone: (919) 475-2181

Facility Location: HOLLY HILL ROAD

Street: 102 EAST HOLLY HILL ROAD

City: THOMASVILLE NC Zip Code: 27360

2. NATURE OF BUSINESS: (Provide Brief Description)

MANUFACTURE GLASS MIRRORS FOR FURNITURE INDUSTRIES

3. NATURE OF HAZARDOUS WASTES: (Provide Brief Explanation)

WASTE N-BUTYL ACETATE (F003, D001) FROM THE RECOVERY OF SOLVENTS FROM PAINTS STILL BOTTOMS

4. DESCRIPTION OF HAZARDOUS WASTE:

A	B	C	D	E	F*	G*	H
Hazardous Waste #	Annual Quantity	Unit Meas.	Storage	Treat-ment	Transpor-tation	Disposal	Manifest Available (Yes or No)
D001, F003	55	G	S01	—	*		

*Provide name, address and I.D. # of transporter and disposal site in comments.

5. COMMENTS:

NO HAZARDOUS WASTE MANIFESTED SINCE 1986

* NO DISPOSAL COMPANY HAS BEEN SELECTED FOR DISPOSAL OF HAZARDOUS WASTE

6. DATE OF SURVEY: 8/31/88

By: Scott Riedling Department: HAZARDOUS WASTE BRANCH

RECEIVED SEP 3 1988 HAZARDOUS WASTE BRANCH

(Instructions on Reverse)

DHS Form 3061 (3/82)
Solid & Hazardous Waste Management Branch

2

NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

SOLID AND HAZARDOUS WASTE MANAGEMENT BRANCH

P.O. BOX 2091 RALEIGH, NORTH CAROLINA 27602-2091

306 N. WILMINGTON ST.

INSPECTION REPORT

EPA ID.# : NCD003215456 FACILITY NAME : Stroupe Mirror Co.

ADDRESS: P.O. Box 728 CITY: Thomasville, NC 27361

DATE OF INITIAL INSPECTION: 3 23 87 STAFF ID #: Carol DOCKET #: 87-420

RESPONSIBLE AGENCY: S = (STATE:) E = EPA: X = OVERSIGHT:
B = STATE CONTRACTOR: E = EPA CONTRACTOR:

TYPE OF EVALUATION: 3

1=CEI
2=SAMPLING
3=RECORD REVIEW
4=CME
5=FOLLOW UP
6=CITIZEN COMPLAINT
7=PART B.
8=WITHDRAWAL CANDIDATE
9=CLOSED FACILITY
10=GENERAL (LOIS FOR EPA)
11=CASE DEVELOPMENT
12=CORRECTIVE ACTION
80=INFORMAL MEETIMG

ENTERED MAY 7 1987 DATA PROCESSING

DATE OF INSPECTION: 3 23 87

CLASS	AREA OF EVALUATION							
	GW:	C/CP	FIN:	PART B:	CMPL.SCH:	MA:	OT:	CA:
I							X	
II							O	

ENTER O, X, or Z IN THE CLASS I ROW.
MAKE ENTRY IN CLASS II ROW ONLY IF CLASS II VIOLATIONS EXIST.

ENFORCEMENT ACTIONS:

CLASS	VIOLATION	CODE	DATE ACTION TAKEN	COMPLIANCES DATE SCHED.	COMPLIANCES DATE ACTUAL	PENALTY ASSESSED	PENALTY COLLECTED	RESPONSIBLE AGENCY	RESPONSIBLE ID
I	OT	05	3-23-87	4-1-87		100 =	NO		

02=3007 INFO REQUEST
03=NOV WARNING LETTER
04=ADMIN. COMPLAINT
05=FINAL ADMIN. ORDER
10=INFORMAL

STATUS OF HANDLER: IN COMPLIANCE WITH SCHEDULE IN ORDER:_____ YES: X NO:

DATE STATUS EVALUATED:_____ _____ _____

COMMENTS:

NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

SOLID AND HAZARDOUS WASTE MANAGEMENT BRANCH

P.O. BOX 2091 RALEIGH, NORTH CAROLINA 27602-2091

306 N. WILMINGTON ST.

INSPECTION REPORT

EPA ID.# : NCD003215456 FACILITY NAME : Stroupe Mirror Co.

ADDRESS: _____ CITY: Thomasville

DATE OF INITIAL INSPECTION: 3 2 87 STAFF ID #: 08 DOCKET #: _____

RESPONSIBLE AGENCY: S = STATE: E = EPA: X = OVERSIGHT:
B = STATE CONTRACTOR: E = EPA CONTRACTOR:

TYPE OF EVALUATION: 1

1=CEI
2=SAMPLING
3=RECORD REVIEW
4=CME
5=FOLLOW UP
6=CITIZEN COMPLAINT
7=PART B.
8=WITHDRAWAL CANDIDATE
9=CLOSED FACILITY
10=GENERAL (LOIS FOR EPA)
11=CASE DEVELOPMENT
12=CORRECTIVE ACTION
80=INFORMAL MEETING

MAR 23 1987 DATA PROCESSING

DATE OF INSPECTION: _____ _____ _____

CLASS	GW:	C/CP	FIN:	PART B:	CMPL.SCH:	MA:	OT:	CA:
I						O	O	
II						O	O	

ENTER O, X, or Z IN THE CLASS I ROW.
MAKE ENTRY IN CLASS II ROW ONLY IF CLASS II VIOLATIONS EXIST.

ENFORCEMENT ACTIONS:

CLASS	VIOLATION	CODE	DATE ACTION TAKEN	COMPLIANCES DATE SCHED.	ACTUAL	PENALTY ASSESSED	COLLECTED	RESPONSIBLE AGENCY	ID

02=3007 INFO REQUEST
03=NOV WARNING LETTER
04=ADMIN. COMPLAINT
05=FINAL ADMIN. ORDER
10=INFORMAL

STATUS OF HANDLER: IN COMPLIANCE WITH SCHEDULE IN ORDER: _____ YES: _____ NO:

DATE STATUS EVALUATED: _____ _____ _____

COMMENTS: _____

North Carolina Department of Human Resources
Division of Health Services

COUNTY OF Davidson EPA I.D.# NCD003215456

SMALL HAZARDOUS WASTE GENERATOR SURVEY

1. GENERAL INFORMATION:

Name of Facility: Stronge Mirror Company

Facility Contact: James Richardson Phone: 475-2181

Facility Location: Box 728

Street: Holly Hill Rd.

City: Thomasville, N.C. Zip Code: 27361

2. NATURE OF BUSINESS: (Provide Brief Description)

Manufacture glass mirrors for furniture industry

3. NATURE OF HAZARDOUS WASTES: (Provide Brief Explanation)

F003, D001 - waste N-butyl acetate generated from the recovery of solvents from waste paints.

4. DESCRIPTION OF HAZARDOUS WASTE:

A	B	C	D	E	F*	G*	H
Hazardous Waste #	Annual Quantity	Unit Meas.	Storage	Treat-ment	Transpor-tation	Disposal	Manifest Available (Yes or No)
D001, F003	2-3(55 gallon drums)		S01	—	→	See Comments	

*Provide name, address and I.D. # of transporter and disposal site in comments.

5. COMMENTS:

Stronge Mirror has not generated a manifest, to date. No disposal company had been selected for date of this inspection.

6. DATE OF SURVEY:

By: Steve Phillips Department: Solid and Hazardous Waste Management Branch

3-2-87

RECEIVED APR 5 1987 SOLID & HAZARDOUS WASTE MANAGEMENT BRANCH

(Instructions on Reverse)

DHS Form 3061 (3/82)
Solid & Hazardous Waste Management Branch

INSTRUCTIONS

SMALL HAZARDOUS WASTE GENERATOR SURVEY

1. GENERAL INFORMATION: Self explanatory.

2. NATURE OF BUSINESS: Provide brief description.

   Example #1 - Small appliance manufacturing
   Example #2 - Finished furniture manufacturing

3. NATURE OF HAZARDOUS WASTES: Provide brief explanation.

   Example #1 - Electroplating sludge - contains chromium and zinc
   Example #2 - Liquid solvent - contains toluene and MEK

4. DESCRIPTION OF HAZARDOUS WASTE:

   A - EPA Hazardous Waste Number (see lists)

   B - Estimated annual quantity

   C - Unit of Measure: For each quantity entered in Column B, enter the unit of measure code:

Gallons	- G	Pounds	- P
Liters	- L	Tons	- T
Cubic Yards	- Y	Kilograms	- K

   D - Storage

Container (barrel, drum, etc.)	- S01
Tank	- S02
Waste Pile	- S03
Surface Impoundment	- S04
*Other (explain in comments)	- S05

   E - Treatment

Tank	- T01
Surface Impoundment	- T02
Incinerator	- T03
*Other (explain in comments)	- T04

   F - Transportation

Transported by company - bulk	- TS1B
Transported by contractor - bulk	- TS2B
Transported by company - containers	- TS1C
Transported by contractor - containers	- TS2C

   G - Disposal

Injection Well	- D79
Landfill	- D80
Land Application	- D81
Wastewater Treatment Plant	- D82
Surface Impoundment	- D83

Retention: 10 years from date of survey

MEMORANDUM

DATE: June 20, 1997

TO: File

FROM: Stephanie L. Kozel SLK
Hydrogeologist
NC Superfund Section

RE: Conversation with Ms. Bertha Perry, landowner
Triple Plating, Thomasville, Davidson County
NCD#982 115 370

I spoke today with Ms. Bertha Perry, land owner of 27 West Main Street, Thomasville. She stated that her husband and she bought the property in 1971 from a realtor in Thomasville. She could not remember the realtors name or who owned the property before they purchased it. She said her husband and her rented the property to Mr. Robert E. Gaddy, owner of Triple Plating. She is distraught with the events that have taken place since Mr. Gaddy abandoned the building. She claims Mr. Gaddy is responsible and has committed several other hazardous waste offenses, such as illegally dumping several drums on a South Carolina highway and subsequently fined $10, 000 by the State of South Carolina. Ms. Perry had the current address and phone number for Mr. Gaddy, 3985 Valley Forge Drive, Trinity, NC 27370, (910)431-1755.

Ref. 10

North Carolina Department of Human Resources
Division of Health Services

COUNTY OF Davidson EPA I.D.# None

RECEIVED JUN 25 1987 SOLID & HAZARDOUS WASTE MANAGEMENT BRANCH

SMALL HAZARDOUS WASTE GENERATOR SURVEY

1. GENERAL INFORMATION:

Name of Facility: Triple Plating Inc

Facility Contact: Bob Gadby Phone: 472-7733

Facility Location: E. Main St.

Street: Barne

City: Thomasville, N.C. Zip Code:

2. NATURE OF BUSINESS: (Provide Brief Description)

Electroplating of Metal Furniture

3. NATURE OF HAZARDOUS WASTES: (Provide Brief Explanation)

Electroplating Sludge - F006

Waste Lacquer Thinner - D001

4. DESCRIPTION OF HAZARDOUS WASTE:

A	B	C	D	E	F*	G*	H
Hazardous Waste #	Annual Quantity	Unit Meas.	Storage	Treat-ment	Transpor-tation	Disposal	Manifest Available (Yes or No)
F006, D001	10-12		S01	—	TS2C	Landfill	No
	55 gallon drums						

*Provide name, address and I.D. # of transporter and disposal site in comments.

5. COMMENTS:

Triple Plating is currently applying for an E.P.A. ID number. Should be considered a small quantity generator, but may change to large generator depending on cleaning schedule and sludge removal.

6. DATE OF SURVEY:

By: Steve Phibbs Department: Hazardous Waste

6/19/87

(Instructions on Reverse)

DHS Form 3061 (3/82)
Solid & Hazardous Waste Management Branch

INSTRUCTIONS

SMALL HAZARDOUS WASTE GENERATOR SURVEY

1. GENERAL INFORMATION: Self explanatory.

2. NATURE OF BUSINESS: Provide brief description.

   Example #1 - Small appliance manufacturing
   Example #2 - Finished furniture manufacturing

3. NATURE OF HAZARDOUS WASTES: Provide brief explanation.

   Example #1 - Electroplating sludge - contains chromium and zinc
   Example #2 - Liquid solvent - contains toluene and MEK

4. DESCRIPTION OF HAZARDOUS WASTE:

   A - EPA Hazardous Waste Number (see lists)

   B - Estimated annual quantity

   C - Unit of Measure: For each quantity entered in Column B, enter the unit of measure code:

Gallons	- G	Pounds	- P
Liters	- L	Tons	- T
Cubic Yards	- Y	Kilograms	- K

   D - Storage

Container (barrel, drum, etc.)	- S01
Tank	- S02
Waste Pile	- S03
Surface Impoundment	- S04
*Other (explain in comments)	- S05

   E - Treatment

Tank	- T01
Surface Impoundment	- T02
Incinerator	- T03
*Other (explain in comments)	- T04

   F - Transportation

Transported by company - bulk	- TS1B
Transported by contractor - bulk	- TS2B
Transported by company - containers	- TS1C
Transported by contractor - containers	- TS2C

   G - Disposal

Injection Well	- D79
Landfill	- D80
Land Application	- D81
Wastewater Treatment Plant	- D82
Surface Impoundment	- D83

Retention: 10 years from date of survey

Ref. 11

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5

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

January 24, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

NOTICE OF VIOLATION
Docket #91-068

Mr. Robert Gaddy
Triple Plating, Incorporated
Box 1075
Thomasville, NC 27360

Ms. Bertha N. Perry
Ms. Cathy McDowell
1601 Heathgate Court
High Point, NC 27262

NCD 982 115 370

Re: Abandoned chemical storage tanks and filter press sludge at the closed Triple Plating, Incorporated facility, 27 W. Main Street, Thomasville, NC.

Dear Mr. Gaddy:

On December 18, 1980, the State of North Carolina, Hazardous Waste Section (State) was authorized to operate the State RCRA hazardous waste program under the Solid Waste Management Act, (Act) N.C.G.S. 130A, Article 9 and rules promulgated thereto at 15A NCAC 13A (rules) in lieu of the federal RCRA program.

On January 16, 1991, Mr. Steve Phibbs, Waste Management Specialist with the Section investigated the storage and disposal of solid waste at the closed Triple Plating, Incorporated facility in Thomasville, North Carolina. Mr. Phibbs observed approximately twenty eight (28) electroplating process tanks, ten (10) 55 gallon drums and about five (5) drums of hazardous waste filter cake sludge (F006) stored inside the facility. The process tanks contain liquids with concentrations of chromium, acid, copper and nickel as well as cyanide solutions. The filter cake sludge was stored in cardboard boxes or laying on top of a pallet covered with cardboard.

A. 40 CFR 261.1(a), codified at 15A NCAC 13A .0006, states that this part identifies those solid wastes which are subject to regulation as hazardous wastes under Parts 262 through 265 and

Parts 268, 270, 271, and 124 of this Chapter and which are subject to the notification requirements of Section 3010 of RCRA.

B. 40 CFR 261.2(b), codified at 15A NCAC 13A .0006, states that materials are solid waste if they are abandoned by being [1] disposed of; or [2] burned or incinerated; or [3] accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

C. 40 CFR 261.3(a), codified at 15A NCAC 13A .0006, states that a solid waste, as defined in Section 261.2 is a hazardous waste if:

1. It is not excluded from regulation as a hazardous waste under Section 261.4(b); and

2. It meets any of the following criteria:

i. It exhibits the characteristics of hazardous waste identified in Subpart C.

ii. It is listed in Subpart D and has not been excluded from the lists in Subpart D under Sections 260.20, and 260.22 of this chapter.

iii. It is a mixture of solid waste and hazardous waste that is listed in Subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C.

iv. It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D and has not been excluded from this paragraph under Sections 260.20 and 260.22 of this chapter.

D. 40 CFR 261.7(a)(2), codified at 15A NCAC 13A .0006, states that any hazardous waste in either (i) a container that is not empty or (ii) an inner liner removed from a container that is not empty is subject to regulation under Parts 261 through 265, and Parts 270 and 124 of this chapter and to the notification requirements of Section 3010 of RCRA.

E. It is the determination of the Section that the storage of various acids and electroplating chemicals and sludges at the Triple Plating, Incorporated site, Thomasville, NC, constitutes storage of a hazardous waste subject to all applicable requirements of 40 CFR 262 through 265 and 270, specifically:

1. 40 CFR 262.11, codified at 15A NCAC 13A .0007, states that

a person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste using the following method:

a. He should first determine if the waste is excluded from regulation under 40 CFR 261.4 and 261.5.

b. He must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261.

c. If the waste is not listed as a hazardous waste in Subpart D of 40 CFR Part 261, he must determine whether the waste is identified in Subpart C of 40 CFR Part 261 by either:

i. Testing the waste according to the methods set forth in Subpart C of 40 CFR Part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or

ii. Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

Triple Plating, Incorporated is in violation of 40 CFR 262.11, codified at 15A NCAC 13A .0007, in that it generated a solid waste, as defined in 40 CFR 261.2, and did not determine if that waste is a hazardous waste.

2. 15A NCAC 13A .0009(a), states that any person who treats, stores, or disposes of hazardous waste shall do so in compliance with the standards set forth in this rule, and only after having received a permit from the Department as required by 15A NCAC 13A .0013(b)(1), or having received interim status according to 15A NCAC 13A .0013(b)(3).

Triple Plating, Incorporated is in violation of 15A NCAC 13A .0009(a), in that it has stored hazardous waste without having received a permit from the Department as required by 15A NCAC 13A .0013(b)(1), or without having received interim status according to 15A NCAC 13A .0013(b)(3).

3. 40 CFR 262.30, codified at 15A NCAC 13A .0007, states that before offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations or packaging under 49 CFR Parts 173, 178 and 179.

Triple Plating, Incorporated is in violation of 40 CFR 262.30, codified at 15A NCAC 13A .0007, in that hazardous waste electroplating sludge (F006) was not being packaged in accordance with the applicable Department of Transportation regulations under 40 CFR Parts 173, 178 and 179.

4. 40 CFR 262.34(a)(2), codified at 15A NCAC 13A .0007, states that a generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status provided that the date upon which each of accumulation begins is clearly marked and visible for inspection on each container.

Triple Plating, Incorporated is in violation of 40 CFR 262.34(a)(2), codified at 15A NCAC 13A .0007, in that the beginning accumulation start dates were not marked or visible for inspection on each container.

5. 40 CFR 262.34(a)(3), codified at 15A NCAC 13A .0007, states that while being accumulated on-site, each container or tank is labeled or marked clearly with the words "Hazardous Waste".

Triple Plating, Incorporated, is in violation of 40 CFR 262.34(a)(3), codified at 15A NCAC 13A .0007, in that the containers of hazardous waste were not labeled or marked clearly with the words "Hazardous Waste".

COMPLIANCE SCHEDULE

By the dates specified below, Triple Plating, Incorporated shall comply with the following requirements:

1. Comply with 40 CFR 262.11, codified at 15A NCAC 13A .0007, by conducting an immediate determination and/or analysis of all wastes in containers, electroplating process tanks and in the sludge containers which will be necessary to ensure proper characterization and disposition.

   By February 15, 1991, develop and submit to this office a comprehensive sampling and analysis report which will characterize all wastes and hazardous materials currently being stored on-site. This includes all materials in the electroplating tanks, containers and sludge wastes materials.

2. Comply with 15A NCAC 13A .0009, by no longer storing hazardous waste on-site and all hazardous wastes previously stored on-site shall be shipped to a permitted hazardous waste treatment, storage and/or disposal facility by March 15, 1991.

3. Comply with 40 CFR 262.30, codified at 15A NCAC 13A .0007, by immediately packaging all containers of hazardous waste in accordance with the applicable Department of Transportation regulations under 49 CFR.

4. Comply with 40 CFR 262.34(a)(2), codified at 15A NCAC 13A .0007, by clearly marking each container of hazardous waste with the accumulation start date and ensuring that these dates are visible for inspection.

5. Comply with 40 CFR 262.34(a)(3), codified at 15A NCAC 13A .0007, by labeling or marking each container or tank clearly with the words "Hazardous Waste".

If the requirements above are not met, enforcement action including injunctive relief may be obtained for continued violations of the hazardous waste law or regulations.

If you have any questions concerning this matter, you may contact Keith Masters at (704) 688-4237.

Sincerely,

Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/dd/KM184

cc: Keith Masters
Central Files
Steve Phibbs
Steve Reid
Margaret Foster

NCD 982115370 Ref. 12

RECEIVED JAN 28 1991 HAZARDOUS WASTE SECTION

4

DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
ENVIRONMENTAL HEALTH SECTION

REPORT OF INVESTIGATION OR INSPECTION OF Triple Plating Inc.

Place visited Triple Plating Inc. (Small Quantity Gen.) **Date** Jan. 16 **1991**

Address 27 W. Main St. Thomasville, N.C. **Time spent** 4 hours

By whom Steve Hubbs (761-2390), David Smoot - Thomasville Fire Dept.

Persons contacted Mr. Robert Gaddy, owner of Triple Plating Inc.; (919) 431-1755
(Owner, agent, tenant, manager, other)

Reason for visit Complaint Investigation - Hazardous Chemicals stored stored at a closed facility in Thomasville, N.C.

Copies to:
Keith Masters, Western Area Supervisor, Spruce Pine, N.C.
Central Files, Raleigh, N.C.
David Smoot, City of Thomasville, Box 368, Thomasville, N.C.
Jill Hutchinson, City of Thomasville, Box 368, Thomasville, N.C. 27360
Bertha N. Perry

REPORT:

On January 16, 1991 I investigated the Triple Plating Inc. facility (NCD982115370) at 27 W. Main St. in Thomasville, N.C. in response to a call from Mr. David Smoot, Thomasville Fire Marshall. Mr. Smoot was concerned about the storage of electroplating chemicals in treatment tanks and smaller containers at a facility that has been closed since November 1, 1990. We met with Mr. Robert Gaddy, owner of Triple Plating Inc. to discuss this matter. Reportedly the property is owned by Ms. Bertha N. Perry of High Point, N.C.

Mr. Gaddy stated that Triple Plating Inc. has closed its manufacturing operation at this location. Several electroplating tanks remain on-site with material stored in each tank. The tanks contain chrome, brass and copper electroplating chemicals as well as acid and cyanide solutions. Samples were collected

TRIPLE PLATING, INC.
Site Specific Health & Safety Plan

Prepared for:

Mr. Steve Phibbs
State of North Carolina
Department of Environment Health and Natural Resources
310 East Third Street
Winston-Salem, North Carolina 27101

and

Mr. Joseph F. McNulty, Jr.
Tuggle Duggins & Meschan
228 West Market Street
Greensboro, North Carolina 27102

Prepared by:

YWC Technologies, Inc.
200 Centreport Drive
Suite 350
Greensboro, North Carolina 27409

Date Prepared:
May 22, 1992

1.0 SCOPE AND OBJECTIVE

This plan establishes the health and safety requirements to be followed by all personnel while working at this site.

All personnel must have the opportunity to review, comprehend, and ask questions pertaining to this plan before entering the site.

Copies to:	Original to Folder in Job File	Date: _____
Copies to:	_____	Date: _____
Copies to:	_____	Date: _____
Copies to:	_____	Date: _____
Copies to:	_____	Date: _____
Copies to:	_____	Date: _____

Site Specific Health & Safety Plan
Prepared for:
Triple Plating, Inc.
Thomasville, North Carolina

Date prepared: May 22, 1992

Approvals:

Health & Safety Officer _____ Date_____

Project Manager _____ Date_____

Amendments must be approved by both the Health & Safety Officer and Project Manager prior to implementation of each amendment.

Amendment Number	Effective Date	Subject

2.0 SITE HISTORY AND DESCRIPTION

2.1 Description of Site

Triple Plating, Inc. is located in Thomasville, North Carolina. The primary product line is plating of hardware used in the furniture industry using solutions of Nickel, Chrome and Cyanide.

2.2 Activities at the Site

The facility was used for plating metal products in the production of hardware used in the furniture industry such as hinges, knobs, table stands and such. There are no current plating activities at the site.

2.3 Site Summary

The plating operations have ceased at the facility. Numerous tanks used in the plating operations have been drained and left inside the building. Four tanks containing cyanide solutions are located in the original area of the plating line. Filters for the nickel plating operation are remaining in the area of the former nickel tanks. The waste treatment equipment consisting of tanks, a plate and frame filter press and associated pumps and plumbing are present. Debris, wood, dirt, containers, metal parts and various equipment is scattered throughout the site. A shed outside of the building contains miscellaneous flammables and combustible products used in the painting operations. Drums and containers are located outside of the building on the loading dock and wooded area directly behind the building.

2.4 Site Characterization

Samples have been submitted to the lab for wipe analysis of walls, floors and ceilings to determine background contamination resulting from the plating operation. Analysis is focused primarily on residual cyanide, since this compound poses the most severe health hazard during cleanup operations. Samples from debris, wood and metal parts with visual signs of contamination have been sent to the lab for testing of cyanide and metals to insure proper handling and treatment.

2.5 Local Climatological Data

The estimated time frame for these actions will cover a period which may include the months of April, May, and June. Based on information from the National Oceanic and Atmospheric Administration (NOAA) for the 1990 year, we can summarize the expected local climate to be as follows.

Average temperatures for each month will be approximately 59.1, 66.0, and 75.2 degrees Fahrenheit respectively.

Average rainfall data is 0.27 inches/day, 0.097 inches/day, and <.005 inches/day respectively.

Average duration of direct sunshine exposure for this period is 408 minutes/day, 577.4 minutes/day, and 613.3 minutes/day respectively.

The highest wind gust speeds can be expected to be on average through the entire three-month period not greater than 32.3 miles per hour.

All data is a compilation of NOAA data from the regional office and sampling resources at the Greensboro, Winston-Salem, High Point Regional Airport.

3.0 SITE ORGANIZATION AND CONTROL

3.1 Work Areas Identified

The work area consist of five areas in the building- the plating line room, raw material storage area, the buffing room, the paint room, and the finished goods area. Also, the dock outside of the building will be addressed during cleanup for containers left behind.

3.2 Decontamination Areas

The site workers will stage the decon area in the breakroom of the main offices prior to entry into the main building requiring decon. A decon area will be set up for the purpose of washing all contaminated materials, metal parts, machines and tanks prior to loading out as "scrap metal". All deon water will be contained within the building, pumped to storage tanks inside, and processed through the waste treatment system onsite.

3.3 Site Security

The site is currently under lock and key. Several windows are broken out, along with exhaust fan openings which will be sealed off prior to decon. This will aid in the security of the building and protection from release outside the building of contaminants during cleanup. Signs will be posted reading "Authorized Personnell Only", and "Caution Tape" will be used where needed.

4.0 JOB ACTIVITIES

Types of activities to be performed include:

- Containment and treatment of cyanide solutions and solids associated with the abandoned cyanide plating tanks.

- Gross decon using an alkaline detergent of all metal parts, tanks, and other equipment to remove residual contamination and release from the site as scrap metal for recycling.

- Gross decon of the building associated directly with the plating line, including a power wash using an alkaline solution on the ceilings, beams, walls and floor of the plating area.

- Gross decon of the remaining building using the same wash procedures as for the plating line.

- Onsite treatment of waste water using existing treatment systems located in the building.

- Shipment of regulated and nonregulated waste materials from the site as required under Federal and State regulations for solid and hazardous waste.

5.0 EDUCATION AND TRAINING

All contractor personnel and subcontractor personnel will observe all safety regulations of as required. The contractor personnel involved on this site must have at least 40 hours of training covering hazardous site activities. In addition, the Project Manager must have attended a Hazardous Waste Site Managers Training course.

All personnel on the site must be familiar with this plan, including personal decontamination procedures, contamination avoidance procedures, and communication hand signals.

Communication hand signals to be used at this site are:

HANDS CLUTCHING THROAT - Out of air/can't breathe

HANDS ON TOP OF HEAD - Need assistance

THUMBS UP - OK/I'm alright/I understand

THUMBS DOWN - No/negative

GRIP PARTNER'S WRIST or
PUT BOTH HANDS AROUND
PARTNER'S WAIST - Leave area immediately

An initial health and safety meeting will be conducted before initial site activity begins. Participants will sign an attendance record documenting their presence at the meeting. Weekly on-site health and safety meetings will be conducted thereafter until project completion.

6.0 MEDICAL SURVEILLANCE

All assigned site personnel must have current respiratory fit-testing certification. In addition, all contract personnel involved with on-site work at site will be enrolled in a Medical Monitoring Program that contains the following physical examination schedule:

Baseline	Prior to participation in site operations.
Annual	Not later than the anniversary date of the baseline examination.
Exit	Upon transfer from activities associated with potentially hazardous exposure or termination of employment.
Periodic	Upon unanticipated exposure to hazardous materials, presentation of symptoms, or as indicated site by the specific situation.

7.0. AMBIENT FIELD MONITORING

7.1 Field Monitoring Equipment

- o OVA or HNu System
- o Noise level indicators
- o Cyanide Meter

7.2 Monitoring Protocol (For Decon Activities)

- o Establish cyanide vapor background levels of ambient air in work areas.
- o Monitor personnel breathing zones during plating line and debris decontamination activities.
- o Record all collected data (include zero readings).
- o Cyanide Levels and the Required Levels of Protection:

  Background to 1 ppm = "D" Level Protection
  1 ppm to 100 ppm = "C" Level Protection
  > 100 ppm = "B" Level Protection

  No work will be performed if Level "A" protection is required.

8.0 LEVELS OF PROTECTION

8.1 Main Office Area

Sampling and debris decontamination.

- o Steel toe and steel shank boots
- o Protective eye-wear as necessary
- o Latex gloves and/or heavy work gloves
- o Hard hat
- o Tyvek (optional)
- o Duct tape
- o Hearing protection (>80 dba)

8.2 All areas of site requiring sampling, debris decontamination and building decontamination.

- o MSA full-face respirators
- o MSA GMC-H cartridges
- o Saranex coveralls
- o Tyvek coveralls
- o Inner surgical gloves
- o Outer neoprene gloves
- o Steel-toe chemical resistant boots
- o Booties
- o Hard-hat
- o Face shield
- o Duct tape
- o Goggles
- o Hearing protection (>80 dba)

9.0 REQUIRED SAFETY EQUIPMENT

- o A first aid kit will be maintained on-site in the decontamination area.

- o Firefighting equipment will be available on- site near excavation activities, preferably a 20 pound or dry chemical type extinguisher.

- o Communications will be verbal through the utilization of the "Buddy System" and radios, or hand signals when utilizing "C" level protection.

- o Personal protective equipment to be used on- site includes, but will not be limited to, Level D and Level C.

- Decontamination equipment to be utilized and includes the disposition of materials after site utilization (Liquinox, brushes, tubs, deionized water, detergent, tap water, aluminum foil, polyethylene wrap, plastic bags, soap, etc.).

- Potable drinking water and temporary sanitation facilities will be available to all contractor personnel in the front main office area. Potable water and a mild detergent (preferably Liquinox) shall be available for personal hygiene.

10.0 DECONTAMINATION PROCEDURES FOR SITE PERSONNEL

Level of Protection: D & C

Decontamination Solution: Mild detergent and water

Procedures (By Station): Perform dry decontamination utilizing contamination avoidance techniques. Wash boots and gloves if obviously contaminated. Wash hands and face after equipment decontamination.

- Scrub vinyl work boots
- Rinse vinyl work boots
- Wash work gloves
- Rinse work gloves
- Remove work gloves
- Untape wrists and ankles, if using tyveks
- Remove respirator and set aside (Level C only)
- Remove tyvek (if used) utilizing contamination avoidance techniques; (unzip, ease shoulders out, roll tyvek down to ankles and remove).
- Remove vinyl surgical gloves
- Bag all disposables and place in designated roll-off or storage containers.

11.0 CONTINGENCY PLANS

11.1 Local Sources of Assistance

- Hospital:
  High Point Regional — Phone: 919-884-8400
  601 N. Elm Street

  Directions: From site location to National Highway (68 North) to High Point - take 85 North to Highway 311 North, turn left on Elm Street to hospital.

- Ambulance: 911
- Fire Department: 911
- Local Police: 911
- State Police: 911
- Job Site: YWC Project Manager

11.2 National or Regional Assistance

Local Contractor's Office	1-919-665-9192
Contractor's Health & Safety Officer	Ms. Evelyn Walker
North Carolina Division of Solid and Hazard Waste (NCDSHW) - Steve Phibbs	1-919-761-2390
EPA Region IV Contact (To Be Assigned)	
EPA (RCRA - Hotline)	1-800-424-9346
EPA (TSCA - Hotline)	1-202-554-0551
Chemtrec (24-hours)	1-800-424-9300
Bureau of Explosives (24 hours) (Association of American Railroads)	1-202-293-4048
Communicable Disease Center	1-404-633-5313
National Response Center (NRC) (Oil/Hazardous Substances)	1-800-424-8802

o	DOT, Office of Hazardous Operations (Regulatory Matters)	1-202-426-0656
o	U. S. Coast Guard (Major Incidents)	1-800-424-8802
o	Pesticide Health Hotline	1-800-858-7378

12.0 AMENDMENTS TO THE SITE SPECIFIC HEALTH & SAFETY PLAN

- This Site Specific Health & Safety Plan is based on information at the time of preparation. Unexpected conditions may arise. It is important that personnel protective measures be thoroughly assessed by the on-site Project Manager prior to and during the planned activities. Unplanned activities and/or changes in the hazard status should initiate a review of and may initiate changes in this plan.

- Changes in the hazard status or unplanned activities are to be submitted on "Amendments to Site Specific Health and Safety Plan" which is included in Plan.

- Amendments must be approved by both the Health and Safety Officer and Project Manager prior to implementation of amendment.

Amendments to Site Specific Health & Safety Plan

Changes in field activities or hazards: _____

_____

_____

_____

_____

_____

_____

_____

_____

Date Printed 08/27/92 Chemical Waste Management, Inc. Ref. 14 SRL X71584

WASTE PROFILE Profile #

(_) Check here if this is a Recertification LOCATION OF ORIGINAL CWM SOUTHERN REGION LAB

GENERAL INFORMATION

1. Generator Name: TRIPLE PLATING Generator USEPA ID: NCD982115370

2. Generator Address: 27 WEST MAIN STREET Billing Address: (_) Same YWC TECHNOLOGIES, INC. BN Permit

200 CENTREPORT DRIVE c/o Joseph McGinty

THOMASVILLE NC 27409 SUITE 350 Tuggle, Duggins, Meade

GREENSBORO NC 27409 P.O. Drawer

3. Technical Contact/Phone: MERL BALDWIN

4. Alternate Contact/Phone: EVELYN WALKER Billing Contact/Phone: 919/665-9192

Greensboro, NC 27402

PROPERTIES AND COMPOSITION

5. Process Generating Waste: DEMOLITION OF OLD PLATING OPERATION WHERE FURNITURE WAS MADE

6. Waste Name: DEMOLITION DEBRIS

7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes (X) No (_)

B. Identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U): D004 D005 D006 D007 D008 D009 D010 D011 P030

State Waste Codes:

8. Physical State @ 70F: A. Solid(X) Liquid(_) Both(_) Gas(_) B. Single Layer (_) Multilayer (X) C. Free liq. range 0 to 0%

9A. pH: Range 7.0 to 10.0 or Not applicable (_) B. Strong Odor (_);describe

10. Liquid Flash Point: < 73F (_) 73-99F (_) 100-139F (_) 140-199F (_) >= 200F (_) N.A. (X) Closed Cup (X) Open Cup (_)

11. CHEMICAL COMPOSITION: List ALL constituents (incl. halogenated organics) present in any concentration and forward analysis

Constituents	Range	Unit	Description
WOOD	75 to 90	%	
PAPER	1 to 2	%	
METAL SCRAP	2 to 4	%	
CONCRETE BLOCK	1 to 2	%	
DIRT	2 to 4	%	
TYVEKS/SPENT RESP. CARTRIDGES	to 1	%	See attachment 2
TOTAL COMPOSITION (MUST EQUAL OR EXCEED 100%):	109.000000		

12. OTHER: PCBs if yes, concentration _ ppm, PCBs regulated by 40 CFR 761 (_). Pyrophoric (_) Explosive (_) Radioactive (_) Benzene if yes, concentration _ ppm. Shock Sensitive (_) Oxidizer (_) Carcinogen (_) Infectious (_) Other

13. If waste subject to the land ban & meets treatment standards, check here: _ & supply analytical results where applicable.

SHIPPING INFORMATION

14. PACKAGING: Bulk Solid (X) Bulk Liquid (_) Drum (X) Type/Size: ROLLOFF Other DUMP TRAILER

15. ANTICIPATED ANNUAL VOLUME: 75 Units: TONS Shipping Frequency: ONE TIME

SAMPLING INFORMATION Sample Tracking Number: 0006478

16a. Sample source (drum, lagoon, pond, tank, vat, etc.): GENERATOR SENT PHOTOS OF WASTE

Date Sampled: _ Sampler's Name/Company:

16b. Generator's Agent Supervising Sampling: 17. (_) No sample required (See instructions.)

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification.

Triple Plating Robert Kelly President 10-24-92

Signature Name and Title Date

Date Printed 08/27/92

SRL K71584

Profile #

18. This is a Nonwastewater.

19. If this waste is subject to any California list restrictions enter the letter from below (either A, B.1 or B.2) next to each restriction that is applicable:

___ HOCs, ___ PCBs, ___ Acid, ___ Metals, ___ Cyanides

20. Identify ALL Characteristic and Listed USEPA hazardous waste numbers that apply (as defined by 40 CFR 261). For each waste number, identify the subcategory (as applicable, check none, or write in the description from 40 CFR 268.41, 268.42, and 268.43).

REF #	A. US EPA HAZARDOUS WASTE CODE(S)	B. SUBCATEGORY Enter the subcategory description. If not applicable, simply check none		C. APPLICABLE TREATMENT STANDARDS			D. HOW MUST THE WASTE BE MANAGED? Enter letter from below
				PERFORMANCE-BASED: Check as applicable		SPECIFIED TECHNOLOGY: If applicable enter the 40 CFR 268.42 table 1 treatment code(s)	
		DESCRIPTION	NONE	268.41(a)	268.43(a)	268.42	
1	D004		X	X			C 05/08/93
2	D005		X	X			C 05/08/93
3	D006		X	X			C 05/08/93
4	D007		X	X			C 05/08/93
5	D008		X	X			C 05/08/93
6	D009	LOW MERCURY, < 260 PPM		X			C 05/08/93
7	D010		X	X			C 05/08/93
8	D011		X	X			C 05/08/93
9	P030		X		X		C 05/08/93

Management under the land disposal restrictions:

A. RESTRICTED WASTE REQUIRES TREATMENT

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

B.2 RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS EXPRESSED AS A SPECIFIED TECHNOLOGY (AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY)

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS

C. RESTRICTED WASTE SUBJECT TO A VARIANCE

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

E. NOT CURRENTLY SUBJECT TO LAND DISPOSAL RESTRICTIONS

21. Is this waste a soil and/or debris? No: _ Yes, Soil: _ Yes, Debris: X Yes, Both: _

22. Specific Gravity Range: ____ to ____

23. Indicate the range of each: Units

Cyanides: _ 0 to 990 PPM Type (free, total, amenable, etc.) TOTAL

Cyanides: _ None to _____ _____ Type (free, total, amenable, etc.) _____

Sulfides: _ None to _____ _____ Type _____

Optional Phenolics: _ None to _____ _____

24. Identify the waste color VARIES, DOT physical state Solid,

and physical appearance WOOD,PAPER,CONCRETE, ETC

Date Printed 08/27/92

SRL K71584

Profile #

25. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS OR INCINERATION		26. RECLAMATION, FUELS or INCINERATION PARAMETERS (Provide if information is available)
TOTAL		RANGE
Beryllium as Be	ppm	A. Heat Value (Btu/lb): ____-____
Potassium as K	ppm	B. Water: ____
Sodium as Na	ppm	C. Viscosity (cps): ____@____F _ 100 F _ 150 F
Bromine as Br	%	D. Ash: ____ %
Chlorine as Cl	%	E. Settleable solids: ____ %
Fluorine as F	%	F. Vapor Pressure @ STP (mm/Hg): ____
Sulfur as S	%	G. Is this waste a pumpable liquid? Yes _ No _
		H. Can this waste be heated to improve flow? Yes _ No _
		I. Is this waste soluble in water? Yes _ No _
		J. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? Yes _ No _

27. TRANSPORTATION INFORMATION

A. Is this a DOT Hazardous Material? Yes X No _

B. Proper Shipping Name: RQ, HAZARDOUS WASTE SOLID, N.O.S.

(EPA TOXICITY, P030)

C. DOT Regulations: North America Hazard Class: ORM-E I.D. NA9189

D. CERCLA Reportable Quantity (RQ) and units (Lb, Kg): 1 Lb

28. SPECIAL HANDLING INFORMATION

_ Material Safety Data Sheets Attached

29. OTHER INFORMATION

30. CHEMICAL WASTE MANAGEMENT CERTIFICATION

Chemical Waste Management, Inc. has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Date Printed 08/27/92

SRL K71584

Profile #

31. OTHER HAZARDOUS CONSTITUENTS Indicate if the waste contains any of the following.

METALS	TCLP Information: Check only ONE for each constituent Use units: ppm, mg/l				TCLP Data	TCA or TOTAL Use units: ppm, mg/l, mg/kg or percent			
						California List			
	Less Than	TC Regulated Level	Equal or More	Waste No.	TCLP Actual	Less Than	Regulated Level	Equal or More	Actual
Arsenic as As		5.0 mg/l	X	D004			500 mg/l		
Barium as Ba		100.0 mg/l	X	D005					
Cadmium as Cd		1.0 mg/l	X	D006			100 mg/l		
Chromium tot Cr		5.0 mg/l	X	D007					
Lead as Pb		5.0 mg/l	X	D008			500 mg/l		
Mercury as Hg		.2 mg/l	X	D009			20 mg/l		
Selenium as Se		1.0 mg/l	X	D010			100 mg/l		
Silver as Ag		5.0 mg/l	X	D011					
Nickel as Ni							134 mg/l		
Thallium as Tl							130 mg/l		
Chromium Hex							500 mg/l		
Antimony									
Beryllium									
Copper									
Vanadium									
Zinc									

Date Printed 08/27/92

SRL K71584

Profile #

32. OTHER HAZARDOUS CONSTITUENTS Indicate if the waste contains any of the following.

ORGANICS	TCLP Information: Check only ONE for each constituent				TCLP Data	TCA or TOTAL Use units: ppm, mg/l or %
	Less Than	Regulated Level	Equal or More	Waste No.	TCLP Analytical Test Results Use units: ppm or mg/l	
Benzene	X	0.5 mg/l		D018		
Carbon Tetrachloride	X	0.5 mg/l		D019		
Chlordane	X	0.03 mg/l		D020		
Chlorobenzene	X	100.0 mg/l		D021		
Chloroform	X	6.0 mg/l		D022		
m-Cresol	X	200 mg/l		D024		
o-Cresol	X	200.0 mg/l		D023		
p-Cresol	X	200.0 mg/l		D025		
Cresol	X	200.0 mg/l		D026		
2,4-D	X	10.0 mg/l		D016		
1,4 Dichlorobenzene	X	7.5 mg/l		D027		
1,2-Dichloroethane	X	0.5 mg/l		D028		
1,1-Dichloroethylene	X	0.7 mg/l		D029		
2,4-Dinitrotoluene	X	0.13 mg/l		D030		
Endrin	X	.02 mg/l		D012		
Heptachlor, & Hydroxide	X	0.008 mg/l		D031		
Hexachloro-1,3 Butadiene	X	0.5 mg/l		D033		
Hexachlorobenzene	X	0.13 mg/l		D032		
Hexachloroethane	X	3.0 mg/l		D034		
Lindane	X	0.4 mg/l		D013		
Methoxychlor	X	10.0 mg/l		D014		
Methyl Ethyl Ketone	X	200.0 mg/l		D035		
Nitrobenzene	X	2.0 mg/l		D036		
Pentachlorophenol	X	100.0 mg/l		D037		
Pyridine	X	5.0 mg/l		D038		
Tetrachloroethylene	X	0.7 mg/l		D039		
Toxaphene	X	0.5 mg/l		D015		
2,4,5-TP Silvex	X	1.0 mg/l		D017		
Trichloroethylene	X	0.5 mg/l		D040		
2,4,5-Trichlorophenol	X	400.0 mg/l		D041		
2,4,6-Trichlorophenol	X	2.0 mg/l		D042		
Vinyl Chloride	X	0.2 mg/l		D043		

GUILFORD LABORATORIES, INC.
P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

-26-1992

ORT OF ANALYSIS

tomer : YWC SOUTHEAST
200 CENTREPORT DR SUITE 250
GREENSBORO NC 27409
TN: CHRIS WALKER

Job # : YWW20521

P.O. # : TRIPLE PLAT

mples :
3338 DIR. DEBRIS #13
3339 WOOD #14
3340 DEBRIS #15
3341 DIRT/DEBRIS #16
3342 DIRT/DEBRIS #17
3343 WOOD #18

ULTS

		3338	3339	3340	3341	3342	3343
l Barium by flame	(ppm)	69	643	194	148	15	14
tal Cadmium by flame	(ppm)	66	6.8	23	6.3	4.0	4.1
l Chromium by flame	(ppm)	124	97000	1800	2600	260	21
l Lead by flame	(ppm)	133	1800	4500	220	52	36
tal Silver by flame	(ppm)	6.7	5.3	7.1	5.2	5.3	.94
tal Mercury by Cold Vapor	(ppm)	7.2	.38	.83	.12	.013	.020
l Arsenic by furnace	(ppm)	7.6	3.6	6.4	3.4	<.23	1.2
l Selenium by furnace	(ppm)	<.05	330	104	111	40	<.07
l Cyanide	(ppm)	<.03	42	94	2.5	490	61

ford Laboratories, Inc.

A. Rayburn

GUILFORD LABORATORIES, INC.
P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

October 1, 1992

REPORT OF ANALYSIS

CUSTOMER: JOSEPH F MCNULTY JR
228 WEST MARKET STREET
GREENSBORO NC 27402

JOB #: JFM20922

P.O. #: TRIPLE PLATING

SAMPLE : # 5029 DEBRIS COMPOSITE

RESULTS		5029
Releasable Cyanide	(ppm)	888

Guilford Laboratories, Inc.

J. A. Rayburn

J. A. Rayburn

AN ENVIRONMENTAL SERVICES COMPANY

MEMORANDUM

TO: CHEMICAL WASTE MANAGEMENT

cc: Joe McNulty
Steve Phibbs

FROM: JOSEPH F. GUNN Joe

DATE; JULY 14, 1992

SUBJECT: GENERATOR CERTIFICATION

Triple Plating has closed down its operations, and through coordination with the State of North Carolina and the owner of the property, Ms. Bertha Perry, YWC is completing a building decontamination and debris removal over the next two months.

We are unable to make contacts with operators of Triple Plating for signature of profiles or manifests on waste materials for disposal. YWC, under contract with Ms. Perry and her law firm of Tuggle, Duggins and Meschan, has sampled and profiled the waste material which is designated for disposal through Chemical Waste Management.

All documents submitted for approval have been completed as best possible through knowledge of the plating operation and laboratory analysis performed on the debris for disposal. YWC believes this information to be true and accurate.

Should you have any questions, please do not hesitate to call us at 919-665-9192, Mr. Joe McNulty at Tuggle Duggins 919-378-1431, or Mr. Steve Phibbs, State of North Carolina Hazardous Waste Inspector at 919-761-2390.

Thank you for your prompt attention to this profile approval.

YWC TECHNOLOGIES, INC. - A BIRD ENVIRONMENTAL COMPANY
200 CENTREPORT DRIVE, SUITE 350 • GREENSBORO, NC 27409 • (919) 665-9192 • FAX (919) 665-9051

GENERATOR'S WASTE MATERIAL PROFILE SHEET

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

FOB: Emelle, Alabama

K 71584

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: 220

A. GENERAL INFORMATION

1. Generator Name: Triple Plating
2. Generator USEPA ID: NCD982115370
3. Facility Address: 27 West Main Street, Thomasville, N.C.
4. Generator State ID: SAME
5. Zip Code: _____
6. Technical Contact: N/A
7. Title: N/A
8. Phone: ( ) N/A

B. MAIL CHEMICAL WASTE MANAGEMENT, INC. INVOICES TO 1. ☐ Generating Facility (A, above), or

2. Company Name: YWC Technologies, INC.
3. Phone: (919) 665-9192
4. Address: 200 Centreport Drive, Suite 350, Greensboro, N.C. 27409
5. Zip Code: 27409

C. 1. NAME OF WASTE Demolition Debris

2. PROCESS GENERATING WASTE Removal of Building Components

3. Is this waste a Dioxin listed waste as defined in 40 CFR 261.31 (e.g., F020, F021, F022, F023, F026, F027, or F028)?
☐ Yes ☒ No If yes, **DO NOT COMPLETE** this form. Contact your Chemical Waste Management, Inc. sales representative for assistance.

D. PHYSICAL CHARACTERISTICS OF WASTE

1. Color:	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F:	4. Layers:	5. Specific Gravity:	6. Free Liquids:
Vary	☒ No ☐ Yes If known, describe: _____	☒ Solid ☐ Semi-Solid ☐ Liquid ☐ Powder Other: _____	☒ Multilayered ☐ Bi-layered ☐ Single Phased	Range: N/A	☐ Yes ☒ No Volume: _____ %

7. pH: ☐ ≤ 2 ☐ > 2-4 ☐ 4-7 ☐ 7 ☒ 7-10 ☐ 10- < 12.5 ☐ ≥ 12.5 ☐ Range _____ - _____ ☐ NA

Liquid Flash Point: ☐ < 73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☐ ≥ 200°F ☒ None ☐ Closed Cup ☐ Open Cup

CHEMICAL COMPOSITION

	RANGE MIN. - MAX.	
Wood	75 - 90	%
Paper	1 - 2	%
Metal Scrap	2 - 4	%
Concrete Block	1 - 2	%
Dirt	2 - 4	%
Tyveks / Spent Resp. Cartridges	- <1	%
Cardboard	1 - 2	%
Rubber Gloves / Hozes	1 - 2	%
PVC Pipe	1 - 2	%
	-	%
	-	%
	-	%

Please note: The chemical composition total in the maximum column must be greater than or equal to 100%. TOTAL: 100 %

Indicate if this waste contains any of the following:

	NONE	or LESS THAN	or ACTUAL
PCB's	☒	☐ < 50 ppm	_____ ppm
Cyanides	☐	☐ < 50 ppm	1-500 ppm
Phenolics	☒	☐ < 50 ppm	_____ ppm
Sulfides	☒	☐ < 50 ppm	_____ ppm

F. METALS Indicate if this waste contains any of the following:

1. ☐ EP TOX/TCLP or 2. ☒ Total

METAL	LESS THAN (Parts Per Million)	or	ACTUAL
Arsenic	☐ < 5	☐ < 500	<10
Barium	☐ < 100		14-600
Cadmium	☐ < 1	☐ < 100	4-66
Chromium	☐ < 5		21-97,000
Lead	☐ < 5	☐ < 500	36-4500
Mercury	☐ < 0.2	☐ < 20	.02-7.2
Selenium	☐ < 1	☐ < 100	1-330
Silver	☐ < 5		1-8
Chromium-Hex	☒ < 5	☐ < 500	
Copper	☒ < 5		
Nickel	☐ < 5	☐ < 134	>134
Thallium	☐ < 5	☒ < 130	
Zinc	☒ < 5		
	☐ <		
	☐ <		
	☐ <		

TURN PAGE AND COMPLETE SIDE 2

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET (Continued)

K 71584
Waste Profile Sheet Code

G. OTHER HAZARDOUS CHARACTERISTICS

1. Is this waste a listed solvent waste as defined by 40 CFR 261.31 (F001, F002, F003, F004, or F005)? ☐ Yes ☑ No
2. Does this waste contain greater than 1000 ppm total halogenated organic compounds? ☐ Yes ☑ No
3. Indicate if this waste is any of the following:
   - ☐ RCRA Reactive
   - ☐ Water Reactive
   - ☐ Explosive
   - ☐ Shock Sensitive
   - ☐ Pyrophoric
   - ☐ Radioactive
   - ☐ Etiological
   - ☐ Pesticide Manufacturing Waste
   - ☐ Other _____
   - ☐ None of the above

H. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS or INCINERATION

	LESS THAN	or	ACTUAL
Beryllium	☐ < 5000 ppm		_____ ppm
Potassium	☐ < 5000 ppm		_____ ppm
Sodium	☐ < 5000 ppm		_____ ppm
Total Bromine	☐ < 2 %		_____ %
Total Chlorine	☐ < 35 %		_____ %
Total Fluorine	☐ < 1 %		_____ %
Total Sulfur			_____ %

I. OPTIONAL — RECLAMATION, FUELS, OR INCINERATION PARAMETERS Provide if information is available.

Range

1. Heat Value (BTU/lb): _____ - _____ 2. Water: _____ %
3. Viscosity (cps): _____ @ ☐ _____ °F ☐ 100°F ☐ 150°F
4. Ash: _____ % 5. Settleable solids: _____ %
6. Vapor Pressure @ STP (mm/Hg): _____
7. Is this waste a pumpable liquid? ☐ Yes ☐ No
   Type of pump? _____
8. Can this waste be heated to improve flow? ☐ Yes ☐ No
9. Is this waste soluble in water? ☐ Yes ☐ No
10. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? ☐ Yes ☐ No

J. TRANSPORTATION INFORMATION

1. Is this a DOT Hazardous Material? ☑ Yes ☐ No 2. Anticipated Annual Volume/Units: 75 tons/ONE time
3. Proper Shipping Name: Hazardous Waste Solid, NOS
4. Hazard Class: D004, D005, D006, D007 5. I.D. #: NA 9189
6. Additional Description: (D008, D009, D010, D011, P030)
7. Method of Shipment: ☐ Bulk Liquid ☒ Bulk Solid ☐ Drum (Type/Size): _____ / _____ Other: _____
8. CERCLA Reportable Quantity (RQ): _____ 9. RQ Units (lb/kg): _____
10. USEPA Hazardous Waste? ☒ Yes ☐ No 11. USEPA Hazardous Waste Number(s): _____
12. State Hazardous Waste? ☒ Yes ☐ No 13. State Hazardous Waste Number(s): _____

K. SPECIAL HANDLING INFORMATION Bulk Roll-Off or Dump Trailer as specified by CWM Transportation and Facility Operations for receipt into landfill

☐ Additional Page(s) Attached

L. GENERATOR CERTIFICATION I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.

1. Joseph F. Gunn
   Signature
2. Regional Manager
   Title
3. Joseph F. Gunn
   Name (Type or Print) (See attached note)
4. 7/14/92
   Date

Form CWM-6000 © 1987 Chemical Waste Management, Inc.

GUILFORD LABORATORIES, INC.
P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

-26-1992

PORT OF ANALYSIS

Customer : YWC SOUTHEAST
200 CENTREPORT DR SUITE 250
GREENSBORO NC 27409
ATTN: CHRIS WALKER

Job # : YWW20521

P.O. # : TRIPLE PLAT

Samples : # 3338 DIR.DEBRIS #13
3339 WOOD #14
3340 DEBRIS #15
3341 DIRT/DEBRIS #16
3342 DIRT/DEBRIS #17
3343 WOOD #18

RESULTS

		3338	3339	3340	3341	3342	3343	(ppm) Haz Waste Limit	(mg/l) Waste Water Limit
Total Barium by flame	(ppm)	69	643	194	148	15	14	100	
Total Cadmium by flame	(ppm)	66	6.8	23	6.3	4.0	4.1	1	<.002
Total Chromium by flame	(ppm)	124	97000	1800	2600	260	21	5	1
Total Lead by flame	(ppm)	133	1800	4500	220	52	36	5	.43
Total Silver by flame	(ppm)	6.7	5.3	7.1	5.2	5.3	.94	5	.03
Total Mercury by Cold Vapor	(ppm)	7.2	.38	.83	.12	.013	.020	.2	
Total Arsenic by furnace	(ppm)	7.6	3.6	6.4	3.4	<.23	1.2	5	
Total Selenium by furnace	(ppm)	<.05	330	104	111	40	<.07	1	
Total Cyanide	(ppm)	<.03	42	94	2.5	490	61		.4

Guilford Laboratories, Inc.

A. Rayburn

mg/l
Waste Water

Ni	1.5
CN	.4
Zn	1
Cu	2

GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE (Elite, 12-pitch).

For: Emelle, Alabama

K 71584

Waste Profile Sheet Code

CWM Location of Original: _____ (SHADED AREAS FOR CWM USE ONLY) CWM Sales Rep. #: 220

This completed form must be returned, with the representative sample, to:

[illegible]
P. O. BOX 55/HWY. 17, MILE MARKER 16
EMELLE, ALABAMA 35459

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Chemical Waste Management, Inc. can accept the special waste described in the Generator's Waste Material Profile Sheet referenced above, you must obtain and supply us with a representative sample of the waste. We may analyze the sample to verify the information that you have provided to us. A representative sample is defined as a sample obtained using any of the applicable sampling methods specified in 40 CFR 261-Appendix I or an equivalent method. Collect a representative sample of your waste and complete the form below. Apply the peel off label and ship your sample along with this form to the address noted above. If you have any questions regarding obtaining a representative sample of your waste, please refer to the instructions for this form, or contact your Chemical Waste Management, Inc. sales representative.

A. SAMPLING METHOD (Indicate which method was employed)

If sampling requirement has been waived by Chemical Waste Management, Inc., do not complete this Generator's Certification of Representative Sample form.

1. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above according to the sampling methods specified in 40 CFR 261-Appendix I.
2. ☐ I have obtained a representative sample of the waste material described in the Generator's Waste Material Profile Sheet referenced above using a method equivalent to the sampling methods described in 40 CFR 261-Appendix I.

B. SAMPLE SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

_____

C. SAMPLE LABEL — COMPLETE LABEL BEFORE REMOVING

1. Waste Profile Sheet Code:	K 71584	1. Waste Profile Sheet Code:
2. [redacted] Generator's Name:	Triple Plating	2. Generator's Name:
3. [redacted] Name of Waste:	Demolition Debris	3. Name of Waste:
4. [redacted] Sample Hour/Date:	10:00 am 7/14/92	4. Sample Hour/Date:
5. [redacted] Sampler's Signature:	Joseph F. Gunn	5. Sampler's Signature:

6. Print Sampler's Name: Joseph F. Gunn Merl Baldwin
7. Sampler's Title: Regional Manager Project Manager
8. Sampler's Employer (if CWM, see D. below): _____

D. WITNESS VERIFICATION (if required) In most circumstances you will be obtaining the sample. However, in those cases in which Chemical Waste Management, Inc. obtains the sample, one of your employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

1. Witness' Signature: _____
2. Witness' Name: _____ 3. Witness' Title: _____
4. Witness' Employer: _____ 5. Date: _____

Ref. 16

TUGGLE DUGGINS & MESCHAN, P.A.

ATTORNEYS AND COUNSELLORS AT LAW

GREENSBORO, NORTH CAROLINA

RAYFORD K. ADAMS III
JOHN R. BARLOW II
DEBORAH J. BOST
JOSEPH F. BROTHERTON
WILLIAM G. BURGIN III
ROBERT C. CONE
WILLIAM C. CONNOR
MARGARET V. COSTLEY
PAUL M. DENNIS, JR.
JONATHAN S. DILLS
JAMES N. DUGGINS, JR.
G. LINN EVANS
ELIZABETH G. GRIMES
C. SCOTT HESTER
MICHAEL D. HOLT
M. JUDITH HUNDLEY
BRADLEY L. JACOBS
DENIS E. JACOBSON
J. REED JOHNSTON, JR.
HAROLD A. LLOYD
HENRY B. MANGUM, JR.
JOSEPH F. MENULTY, JR.
DAVID F. MESCHAN
M. VAUGHN RAMBEY
BARBARA C. RUBY
WILLIAM R. SAGE
THOMAS S. THORNTON, JR.
RICHARD J. TUGGLE
RICHARD J. TUGGLE, JR.
MICHAEL J. WENIG
CAROLYN J. WOODRUFF

MAILING ADDRESS
DRAWER X
GREENSBORO, N. C. 27402

TELEPHONE
(919) 378-1431

OFFICES
226 WEST MARKET STREET
GREENSBORO, N. C. 27401

October 1, 1992

Mr. Douglas Olshinski, Fire Inspector
City of Thomasville, Fire Department
712 East Main Street
Thomasville, North Carolina 27360

Re: Triple Plating, Inc.
27 West Main Street
Thomasville, North Carolina

Dear Inspector Olshinski:

As I explained this past Saturday, this law firm represents Mrs. Bertha N. Perry, the owner of the property located at 27 West Main Street and previously occupied by Triple Plating, Inc.

This building was abandoned by Triple Plating, Inc., and subsequently was classified as a hazardous waste site by the North Carolina Department of Environment, Health and Natural Resources (DEHNR). Mrs. Perry has spent many thousands of dollars to clean up this site even though she was not responsible for the contamination left behind by her tenant, Triple Plating, Inc.

The interior of the building has been decontaminated, and one of the few remaining steps in the clean up is the disposal of about 8,000 gallons of water contaminated with electroplating wastes (including nickel, chromium, copper, and cyanide). Initially, it was hoped that this wastewater could be treated, filtered, and discharged to the Thomasville sewage system, but the nickel content could not be brought down enough to meet Thomasville's very strict effluent release limit of 1.5 parts per million. Please contact Ms. Jill Friedrich, Pre-Treatment Coordinator for the City of Thomasville, if you have any questions about the composition of the wastewater, which was tested by her office for its metals content.

Thereafter, with the agreement of Mr. Steve Phibbs of the Hazardous Waste Section of the Winston-Salem regional office of the DEHNR, it was determined that reduction of the volume of this wastewater could safely and effectively be accomplished by heating the wastewater with a steam coil. This was the

operation that was underway when you arrived at the building last Saturday afternoon.

Although the wastewater is contaminated, it is still mostly ordinary water since the contaminants are present at parts per million levels. The concept is to reduce the volume of the wastewater by boiling or steaming away as much of the water as possible. The contaminants will remain behind in the heating tank. It is hoped that the volume of wastewater can thereby be reduced from 8,000 gallons to 750 gallons or less, which can then be transferred to barrels for shipment to a licensed disposal facility at an affordable cost. Proper disposal of such wastewater is extremely expensive (about $1.65 per gallon), so it is obviously important to reduce, if possible, the number of gallons that must be shipped off-site for disposal.

Special attention is being paid to the pH level of the wastewater. Three different methods (paper test strips, a color-matching chemical test kit, and a microprocessor-controlled pH tester) are being used to verify that each tank of wastewater will remain alkaline (pH level of 8 or higher) during steaming to prevent the generation of cyanide gas. For your information, I have attached my letter to Mr. Phibbs dated September 25, 1992, which refers to this matter and includes laboratory test results. I have also attached a list showing the volume of wastewater in each tank and sump in the building.

Mr. Robert Gaddy, president of Triple Plating, Inc., has agreed to conduct this wastewater reduction since he is familiar with the boiler and the safe handling of the wastewater, and he also recognizes that the contamination problems left behind in the building when his company went out of business have caused great hardship for Mrs. Perry.

I understand that you have discussed this matter with Mr. Phibbs and that you now have no objection to a resumption of the wastewater reduction project. Mr. Gaddy intends to resume steaming of the wastewater about 4:00 p.m. this Friday, and he hopes to continue on an around-the-clock basis, if possible, until Sunday night. Since Mr. Gaddy works elsewhere during the week, he is having to handle this project on weekends. He has told me that he believes two or three weekends will be needed to complete the steaming operation.

I appreciate your offer to inform the Thomasville Police Department that this water reduction project is underway and proceeding with your approval. Please let me know if you have any questions.

Very truly yours,

Joseph F. McNulty, Jr.

JFM/hfd

cc: Mr. Steve Phibbs [via facsimile (919) 896-7005]
Hazardous Waste Section
North Carolina Department of Environment, Health and Natural Resources
8025 North Point Boulevard, Suite 100
Winston-Salem, NC 27106

bcc: JND

WASTEWATER AT
TRIPLE PLATING, INC.
27 West Main Street
Thomasville, North Carolina

Tank	Gallons
1	960.00
2	768.60
3	360.00
4	360.00
5	1,680.00
6	797.48
7*	840.00
8	1,200.00

*The contents of Tank 7 have been pumped to the heating tank and were steaming when you visited the building last Saturday.

Sump	Gallons
1	151.88
2	151.88
3	28.13
4	372.23

TUGGLE DUGGINS & MESCHAN, P.A.
ATTORNEYS AND COUNSELLORS AT LAW
GREENSBORO, NORTH CAROLINA

RAYFORD K. ADAMS III
JOHN R. BARLOW II
DEBORAH J. BOST
JOSEPH F. BROTHERTON
WILLIAM G. BURGIN III
ROBERT C. CONE
WILLIAM C. CONNOR
MARGARET V. COSTLEY
PAUL M. DENNIS, JR.
JONATHAN S. DILLS
JAMES N. DUGGINS, JR.
G. LINN EVANS
ELIZABETH G. GRIMES
C. SCOTT HESTER
MICHAEL D. HOLT
M. JUDITH HUNDLEY
BRADLEY L. JACOBS
DENIS E. JACOBSON
J. REED JOHNSTON, JR.
HAROLD A. LLOYD
HENRY B. MANOUM, JR.
JOSEPH F. MENULTY, JR.
DAVID F. MESCHAN
M. VAUGHN RAMSEY
BARBARA C. RUBY
WILLIAM R. SAGE
THOMAS S. THORNTON, JR.
RICHARD J. TUGGLE
RICHARD J. TUGGLE, JR.
MICHAEL J. WENIG
CAROLYN J. WOODRUFF

MAILING ADDRESS
DRAWER X
GREENSBORO, N. C. 27402

TELEPHONE
(919) 378-1431

OFFICES
228 WEST MARKET STREET
GREENSBORO, N. C. 27401

September 25, 1992

VIA FAX: (919) 896-7005
Confirmed by First Class Mail

Mr. Steve Phibbs
N.C. Department of Environment, Health
and Natural Resources
8025 North Point Boulevard, Suite 100
Winston-Salem, N.C. 27106

Re: Triple Plating, Inc.
Site, Thomasville, N. C.

Dear Steve:

To confirm our recent telephone conferences, Mr. Gaddy has moved a clean tank into position in the center section of the building and pumped approximately 1,600 gallons of waste water into it for volume reduction. A steam coil will be use to evaporate (not boil) the waste water in the eight tanks and four sumps in the building. The eight tanks contain 6,966 gallons of waste water. The four sumps contain 704 gallons.

An electrician has restored power to the boiler and its associated pumps, and a temporary connection between the existing steam lines and the heating coil will be completed this evening. As water is steamed away in the heating tank, additional waste water will be pumped into the heating tank from the other tanks at the site. The goal is to reduce the volume of water to no more than an amount sufficient to fill the heating tank.

Attached are the test results showing the cyanide levels in the various batches of waste water. This effort to reduce the volume of the waste water will <u>not</u> involve any chemical treatment to neutralize the cyanide, which should remain and concentrate in the final tank of waste water that will remain at the end of the steaming process. At that point, another lab analysis of the waste water will be done to fix the amount of cyanide that must be either neutralized on site or shipped off site for treatment.

Before water reduction actually begins, each tank of waste water will be tested with a computerized pH analyzer to insure that each tank is slightly alkaline. I anticipate that Mr Gaddy will have to complete this water reduction effort over the course of two or three weekends since he is not available during the week.

Very truly yours,

Joe

Joseph F. McNulty, Jr.

JFM/lmb

Enclosures

GUILFORD LABORATORIES, INC.
P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

09-18-1992

REPORT OF ANALYSIS

Customer : JOSEPH F MCNULTY JR
228 WEST MARKET STREET
GREENSBORO NC 27402

Job # : JFM20903

P.O. # : TRIPLE PLATING

ATTN:

Samples : # 4691 TANK 1
4692 TANK 2
4693 TANK 3
4694 TANK 4
4695 TANK 5
4696 TANK 6

RESULTS

		4691	4692	4693	4694	4695	4696
Total Cyanide	(ppm)	7.1	17.3	4.8	670	7.8	<.6

Guilford Laboratories, Inc.

J.A. Rayburn

J. A. Rayburn

GUILFORD LABORATORIES, INC.
P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

09-18-1992

REPORT OF ANALYSIS

Customer : JOSEPH F MCNULTY JR
228 WEST MARKET STREET
GREENSBORO NC 27402

Job # : JMF20903

P.O. # : TRIPLE PLATING

ATTN:

Samples : # 4697 TANK 7
4698 TANK 8
4699 SUMP 2
4700 SUMP 3

RESULTS

		4697	4698	4699	4700
Total Cyanide	(ppm)	<.6	224	7.5	268

Guilford Laboratories, Inc.

J. A. Rayburn

J. A. Rayburn

GUILFORD LABORATORIES, INC.
P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

0[redacted]-18-1992

REPORT OF ANALYSIS

Customer : JOSEPH F MCNULTY JR
228 WEST MARKET STREET
GREENSBORO NC 27402

Job # : JMN20908

P.O. # : TRIPLE PLATING

ATTN:

S[redacted]nple : #4725 SUMP 1

R[redacted]SULTS

		4725
T[redacted]tal Cyanide	(ppm)	1520

G[redacted]ilford Laboratories, Inc.

[redacted]. A. Rayburn

GUILFORD LABORATORIES, INC.
P.O. Box 9735/Plaza Station/Greensboro, N.C. 27408

09-18-1992

REPORT OF ANALYSIS

Customer : JOSEPH F MCNULTY JR
228 WEST MARKET STREET
GREENSBORO NC 27402

Job # : JFM20909

P.O. # : TRIPLE PLATING

ATTN:

Sample : #4734 SUMP #4

RESULTS

		4734
Total Cyanide	(ppm)	5.2

Guilford Laboratories, Inc.

J. A. Rayburn

Ref. 17

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

November 28, 1995

Post-it™ Fax Note 7671	Date 12/6	# of pages ▶ 1
To: Steve Phibbs	From Brenda Rivers	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

MEMORANDUM

TO: Robert Franklin

FROM: Michael A. Kelly
Deputy Director

SUBJECT: Triple Plating Site

RECEIVED
N.C. Dept. of EHNR
DEC 6 - 1995
Winston-Salem
Regional Office

Heritage Environmental is authorized to remove and dispose of waste at the Triple Plating Site, 27 West Main Street, Thomasville, North Carolina. Emergency response funds will be used for remediation of this site. It is our understanding that the necessary work will not exceed $5,000.00. Please direct budget inquiries to Brenda Rivers, 401 Oberlin Road, Raleigh, North Carolina 27605, (919) 733-4996, Extension 204. Doug Holyfield or Steve Phibbs will direct this project for the division.

August 21, 1996

TO: File

FROM: Pat DeRosa, Site Evaluation and Removal Branch Head
NC Superfund Section

RE: Triple Plating, Inc., NCD 982 115 370
27 W. Main Street
Thomasville, Davidson County, NC

On August 21, 1996, I spoke by telephone with Steve Phibbs, Hazardous Waste Section, W-S Regional Office, (910) 771-4600 regarding the status of the subject site. Mr. Phibbs indicated that he had been by the site last week and that the owner was apparently having the building demolished. He said that the building had previously been condemned by the city of Thomasville. Mr. Phibbs and I reviewed the August 21, 1992 memo from Joseph Gunn regarding materials on the site at that time. Mr. Phibbs indicated that all the materials listed in that memo had been removed from the site. Mr. Phibbs was not aware of any soil sampling done at the site or of any reports generated by the cleanup contractors. However, he referred me to Mr. Joe McNulty (910) 378-1431 of Greensboro who is the attorney for the property owner, Ms. Bertha Perry. Mr. Phibbs said that the facility had been on city water and sewer and had been discharging its pretreated process wastewater to the city sewer system.

Kirk-Othmer

Encyclopedia of Chemical Technology

Third Edition

Volume 8

Diuretics to Emulsions

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NIKOLAUS E. WOLFF
Consultant, Hanover, N.H.

JOHN W. WEIGL
Xerox Corporation

ELECTROPLATING

Electroplating is the electrodeposition of an adherent metallic coating on an electrode in order to form a surface with properties or dimensions different from those of the basis metal. This ASTM definition (1) is broadened for purposes of the present article in two respects: the term adherent excludes electroforming, which is usually considered a branch of electroplating technology; and the term electrodeposition must be stretched to include electroless plating (qv) and immersion processes that do not employ electric current (see also Film deposition techniques; Metallic coatings).

As is usual, the practical and technological phases of electroplating matured much earlier than the science; electroplating with copper, silver, and gold was mentioned in the literature, and even patented (2), almost as soon as Faraday enunciated the laws of electrolysis. Until about World War I, electroplating remained essentially an art: solution compositions were closely guarded family secrets, and most electroplaters made no pretense of knowing even the fundamentals of electricity or chemistry. Most early uses of electroplating were predominantly decorative, and the physical and chemical properties of the product were not so important as its appearance. The demands of World Wars I and especially II for finishes with close tolerances and rigidly

specified properties converted electroplating from a craft to a technology grounded in basic science and engineering. This development has been forwarded by advances in metallurgy and physical and electrochemistry, by improvements in sources of direct current and in measuring instruments, and by the rise, between the wars, of the chemical industry which made available reliable sources of pure chemicals (3). The electronics industry requires many electroplated finishes that must pass rigid specifications (4–5). Recent progress (1950–1975) has been reviewed (6).

Electroplating is a surface treatment. The material (work) being treated is made the cathode in an electroplating solution, or bath. Such baths are almost always aqueous solutions, so that only those metals that can be reduced from aqueous solutions of their salts can be electrodeposited. The only major exception at present is aluminum, which is plated on a semicommercial scale from organic electrolytes (7). Some of the refractory metals (eg, niobium, tantalum) can also be deposited from fused salts as coherent plates, but little commercial use has resulted from this development (8–9).

The thickness of deposit applied by electroplating varies with the application: from as little as 0.025 μm for decorative gold deposits through 25–50 μm for standard nickel–chromium plate on exterior automotive hardware, to 1 mm or more for electroforms.

The properties conferred by electroplating include improved corrosion resistance, appearance, frictional characteristics, wear resistance and hardness, solderability, specific electrical properties, and many others. Electroforming (including electrotyping) is used to manufacture articles that cannot be made as economically in any other way.

Table 1 lists U.S. consumption of various metals for electroplating in 1976. In that year total U.S. cadmium consumption was about 5625 metric tons, somewhat less than half of which was used in electroplating (11,13). An additional 4000 t of chromium over the amount listed in Table 1 was used in other forms of metal treating such as conversion coatings, anodizing, and plating on plastics. Data for other common plating metals such as copper and zinc are too fragmentary for quotation.

The Substrate in Electroplating

There is much more to electroplating than the final step of laying down a coating of the plating metal, and much more has to be considered than the properties of the plated metal. The final article will consist not of the deposit alone, but of deposit plus substrate. It is the properties of this combination that often determine the right metal to plate and the right solution to plate it from. A few examples may be illustrative.

Many metals, corrosion-resistant themselves, actually decrease the corrosion

Table 1. U.S. Consumption of Metals in Electroplating, 1976

Metal	Weight, t	Reference
tin	19,000	10
nickel	17,400	11
silver	270	11
gold	50	11
chromium	9,525	12

conditioning, rendering the surface catalytic, and applying an electroless or autocatalytic deposit, usually nickel or copper (see Electroless plating). The only cleaning generally necessary is for removal of fingerprints or minor soils. Solvent treatment is required only if the plastic is hydrophobic; it is omitted with ABS and some other substrates. Conditioning, usually in a solution containing chromic and sulfuric acids, roughens the surface just enough to yield interlocking of the subsequent deposit, and changes the surface chemically to provide sites for chemical bonding. The catalytic surface is generally provided by adsorption of a reducing agent, normally stannous chloride, followed by immersion in a dilute solution of palladium chloride which is reduced to metallic palladium by the tin(II) on the surface. Although this can be accomplished in two steps, a one-step process containing both the stannous chloride and the palladium chloride in one solution has superseded the two-step method in most shops. When the surface has been thus rendered catalytic, electroless nickel or copper can be used to provide a conducting surface, after which electroplating takes place as usual.

Methods for avoiding the use of precious metals such as palladium have been proposed (50).

Plating on plastics is a vital step in the manufacture of printed-circuit boards (4–5,51) and is increasing in importance (52–53). A critical review of the patent literature to 1970 is available (54) as are monographs on the subject (55–56).

The Electroplating Process

The operations of electroplating, including the cleaning, rinsing, plating, and postplating treatments, can be carried on manually or with almost any desired degree of automation. Parts may be hung in the plating tank on wires or on racks; when many small parts are to be plated, they may be contained in wire baskets or, more commonly, in barrels that rotate in the plating tank. Movement from one operation to another may be by hand or by machine.

The necessary d-c power is derived from motor–generators or, increasingly, by rectifiers. Transistor rectifiers may be of three types: selenium, germanium, or most important, silicon (see Semiconductors). Power is conveyed to the plating tanks by bus bars; the anodes are hung into the tank from the positive bus bar, usually along the two sides (see Fig. 1) and the work to be plated from the negative or cathode bar, usually down the center. Tank voltage is read from a voltmeter, and current from an ammeter: these two instruments should be available for each plating tank. A third instrument, an ampere-hour meter, is often helpful as a means of regulating the thickness of deposit and for general control of the operations.

Some agitation of plating solutions or of the work is usually helpful. The oldest and simplest method consists of an operator merely swishing the work around at intervals, but automatic cathode-rod agitation is preferable. In some automatic plating machines the work is moved through the solution while it is plated. Provided clean air is used and the solution is not sensitive to oxygen or carbon dioxide, air agitation is convenient and efficient. Agitation may be provided by stirring or pumping the solution; the latter is often necessary when heat exchangers are used for temperature control or where continuous filtration is required. In barrel plating, agitation is supplied by the movement of the barrel.

Temperature control is almost always desirable in plating operations because

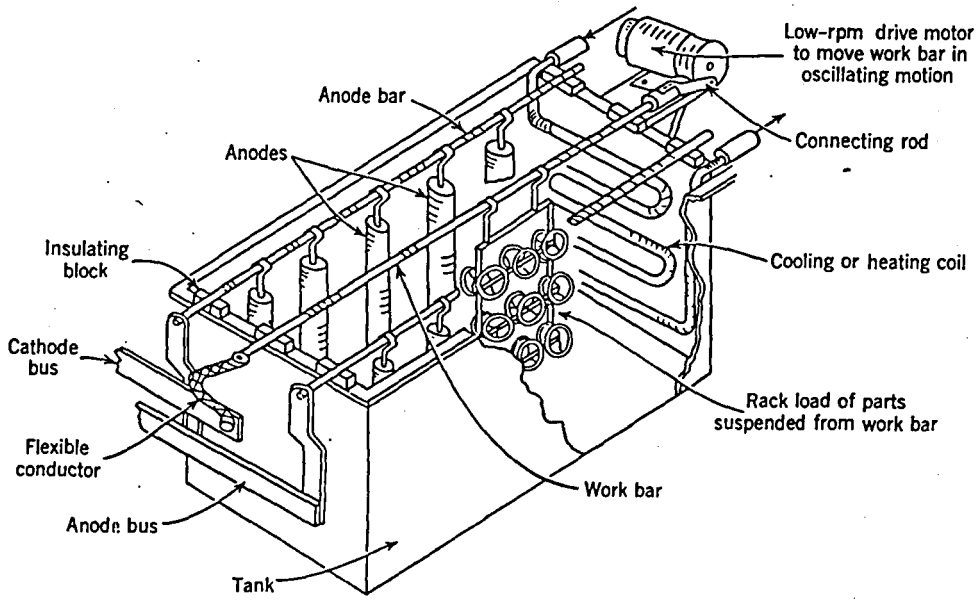


Figure 1. Cut-away view of plating tank.

the characteristics of plating solutions, of the deposit, or of both usually depend to a large extent on the temperature of operation. Heating or cooling coils in the tank itself may be used, or the solution may be circulated through a heat exchanger. Electric immersion heaters may be used. Occasionally plating tanks are heated by open gas flames beneath the tank.

Figure 1 shows a typical plating tank but there are many variations on this basic design. Instead of two anode and one cathode bars, there may be three anodes and two cathodes, etc. If tanks are of bare metal, they should be well-insulated from the floor, and other precautions should be taken against stray currents, which may be very troublesome and extremely difficult to trace.

In addition to the basic equipment—power source, plating, cleaning, and rinsing tanks, and bus bars—most plating installations require one or more of the following: filters, for either continuous or intermittent purification of solutions; drying facilities, which may range from a simple jet of compressed air to large ovens; racks of design appropriate to the part being plated, and a racking station where the work can be conveniently hung on these racks and unracked after plating; one or more stripping tanks for stripping faulty deposits so that parts can be reworked and for stripping the plating racks themselves; reclaim tanks if the drag-out is valuable and worth reclaiming; portable pumps for transferring solutions; and at least one empty tank so that a plating tank can be emptied and worked on.

In addition to the equipment required for electroplating and allied processes, the modern plating shop must include apparatus for waste treatment, metal recovery, or both (see Waste Disposal and Metal Recovery).

Continuous Plating. Electrolytic processes are well-suited to plating continuous coils of strip or wire. The substrate can be uncoiled, pickled, cleaned, plated, given postplating treatments, and recoiled in one continuous operation. The manufacture of electrolytic tinplate by the steel mills is the largest and best developed of these

processes, but continuous plating of strip and wire with zinc, copper, and other metals is also extensively practiced. Equipment is highly specialized; solutions may be conventional or, like the Halogen process for tinplate, especially adapted to the application (57–58). It is not necessary that continuous plating be done on the enormous scale of the tinning lines of the steel mills; wire and narrow strip, as well as conduit and electrical terminals are economically plated for special applications on a very modest scale (59) (see Electrical connectors).

Materials of Construction. Plating tanks and auxiliary equipment are constructed of materials resistant to the particular solution involved. This usually means plain steel for alkaline solutions and rubber- or synthetic-lined steel for acid solutions. In using steel tanks the possibility of bipolar effects must be kept in mind, ie, since the tank is a conductor, it may become interposed in the electrical circuit. If the path anode–tank–cathode is electrically shorter than the path anode–cathode, this may have various unwanted side effects. In choosing linings for use with acid solutions, several other factors must also be considered: the heat resistance of the lining must be adequate for the temperature of operation of the solution; and some plating solutions, notably the bright nickels, are sensitive to the materials that may be leached out of the lining. Chromium plating solutions, because of their highly oxidizing nature, require special selection of lining materials; various lead alloys and brick are also commonly used.

Some of the refractory metals are being made use of to some extent in designing plating equipment: tantalum heating coils and titanium racks and anode baskets are examples. Advances in plastics are also having their effect, in improved lining materials with better heat resistance, plating barrels with higher mechanical strength, etc.

Economics. The economics of plating operations is a controversial and poorly understood subject. Except when the deposited metal is very expensive, eg, gold, the actual cost of the deposited metal is generally considered to be a minor factor in the total cost of plating, and power cost is even less important. It is, of course, cheaper to plate zinc than cadmium but the difference is not the ratio of their prices. Overhead and labor are the major factors; thus it is more important, economically, to deposit the required plate quickly and satisfactorily—to produce the most work in the least space with the fewest rejects—than to economize on supplies or power. It must be admitted, however, that cost-accounting procedures for the plating trade are not well developed, at least in the literature.

Safety. Hazards in plating operations arise from the nature of the materials routinely handled, many of them highly toxic. Thus certain minimum precautions are absolutely necessary. Many of the cleaning, plating, and pickling steps evolve fumes and spray, which must be vented without being permitted to come in contact with workers. Chromic acid spray is highly irritating to nasal mucosa, as is caustic spray; fumes from vapor degreasing are toxic; and many solutions cause dermatitic reactions. Fluoborates and fluorides must not come in contact with skin; cyanide solutions, normally alkaline, should never come in contact with acids. Most of the normal hazards of a plating room can be adequately handled by a combination of proper ventilation and appropriate protective clothing. Most state labor departments have definite codes specifying the maximum limits of various contaminants that are permitted in the air of the work place. Because of the low voltages employed, electrical hazards in plating are not usually of concern. Anodizing of aluminum and the high-voltage side of rectifiers constitute exceptions.

Waste Disposal and Metal Recovery. Present concern for pollution control has rendered waste control and metal recovery of prime importance in the minds of plating shop owners and operators. EPA regulations, when issued in final form, will have the force of law, and meeting these regulations will be expensive for many industries, including metal finishing. In the late 1970s more papers and reports on various methods of reducing or eliminating contaminants in the effluents have appeared in the journals devoted to the electroplating industry than on any other subject. In addition, symposia have been held at frequent intervals and continue to be scheduled (60–65).

It is not possible at present to make definitive statements concerning either EPA regulations or the best means of meeting them. The regulations are still tentative and subject to industry and public comment. The ways they can best be met are under continuing study from the standpoints of both effectiveness and economics.

Proposed EPA regulations are presented in Tables 4 and 5 (61–63). The optional limits (Table 4) for large plants apply if they use no strong chelating agents that would prevent the determination of some metals. The limits refer principally to discharges

Table 4. Proposed (1978) EPA Limits for Discharge into POTW Systems, in mg/L

Pollutant	Companies with less than 37,850 L (10,000 gal)/d discharge		Companies with more than 37,850 L/d discharge	
	1-d max	30-d average	1-d max	30-d average
CN[a]	2	0.8	0.2	0.08
CN, total			0.64	0.24
Cr^{6+}	0.25	0.09	0.25	0.09
Cu			4.6	2.0
Ni			3.6	1.8
Cr, total			4.2	1.6
Zn			3.4	1.5
Ag			1.0	0.34
Pb	0.8	0.4	0.8	0.4
Cd	1.0	0.5	1.0	0.5
Total metals[b]			7.5	3.9
pH	adjusted to 7.5–10		adjusted to 7.5–10	

[a] CN amenable to chlorination.
[b] Total of Cu, Ni, Zn, and total Cr; does not include Cd and Pb.

Table 5. Proposed EPA Optional Limits for Discharge into POTW Systems by Companies with Discharge Greater than 37,850 L (10,000 gal)/d, in mg/L

Pollutant	1-d max	30-d average
CN[a]	0.2	0.08
CN, total	0.64	0.24
Cr^{6+}	0.25	0.09
Pb	0.8	0.4
Cd	1.0	0.5
TSS[b]	15	10
pH	adjusted to 7.5–10	

[a] CN amenable to chlorination.
[b] Total suspended solids.

into municipal sewer systems (POTW, publicly owned treatment works). Little has appeared regarding discharge directly into watercourses.

There are two basic approaches to waste treatment: destruction and recovery. Original emphasis was on the former, with the objectionable metals being precipitated as sludges and disposed of to landfills, or similar means. As landfills become both less available and more restrictive in their acceptance of such sludges, emphasis has shifted to recovery of the metals for reuse in the plant or for sale to a refiner.

Although some attempts have been made to recover cyanides, in general cyanide is still treated by destructive methods. The usual method is chlorination by either chlorine gas or hypochlorites. The following reactions take place:

$$CN^- + Cl_2 \rightarrow CNCl + Cl^- \quad (1)$$

$$CNCl + 2\,OH^- \rightarrow CNO^- + Cl^- + H_2O \quad (2)$$

$$2\,CNO^- + 4\,OH^- + 3\,Cl_2 \rightarrow 6\,Cl^- + 2\,CO_2 + 2\,H_2O + N_2 \quad (3)$$

The final products are carbon dioxide and nitrogen, both innocuous. Reaction 1 is fast and takes place at all levels of pH; reaction 2 requires high pH; reaction 3, on the other hand, goes fastest at relatively neutral pH. It is, therefore, necessary to adjust the pH on a time schedule as the reactions proceed. In some cases it may not be necessary to carry out reaction 3 since cyanate, CNO^-, is far less toxic than cyanide and is a permitted waste in some jurisdictions.

Other methods of cyanide destruction have been proposed: electrolysis (66–68), which may also serve to recover some metals at the cathode while anodic oxidation is going on; use of peroxygen compounds (69), solvent extraction (70), oxidation on granulated carbon (71) and catalytic methods (72).

Hexavalent chromium, generated from chromium plating and other treatments such as conversion coatings and anodizing, is also highly toxic and strictly regulated. No satisfactory method has been found for precipitating Cr(VI); the usual method of disposal is to reduce it to Cr(III) using sulfur dioxide or sulfites. Occasionally, the ready availability and cheapness of spent pickle liquors containing ferrous ion make them attractive for this purpose. After reduction the Cr(III) can be precipitated as the hydrous oxide, similarly to other metals.

If the pollutant metals are to be precipitated as hydrous oxides and disposed of as sludges, pH control is required since different metals precipitate at different acidities, and some such as zinc are amphoteric. These hydrous oxides settle poorly and the sludges must be dewatered to some extent; flocculating agents are used in some plants. Any cheap alkali such as lime or caustic soda can be used for raising the pH, and sulfuric acid for lowering it. If both alkaline and acidic wastes are available, waste plus waste is proposed (73). Current shop practices and their success in waste control have been summarized (74–75). Precipitation as sulfides has been suggested (76–77). Usually cyanide destruction must precede precipitation of the contaminant metals.

The disadvantages of precipitation methods will be evident from the foregoing discussion, and attention has turned more and more to recovery of the valuable metals from effluents before their discharge. Among the methods proposed for recovery systems are reverse osmosis (qv) (RO) (78–83); evaporative recovery (84–86); ion exchange (qv) (87–88), and various combinations of two or more techniques (79,89). Most of these methods are technically feasible and the principal snag is their relatively high cost: large capital expense for equipment, energy for evaporation, membrane life for RO, etc.

Waste disposal and metal recovery systems are in general not offered by the conventional plating supply houses, but by firms that manufacture the osmotic membranes, evaporators, and ion-exchange equipment. Design is often left to consultants who specialize in the field. The problem is basically one of chemical engineering rather than electroplating; nevertheless, it is of paramount importance to the plating trade (see Recycling).

The requirement for maintaining low levels of cyanide in wastes has had a side effect on plating practice in that an active search for plating solutions that do not contain cyanide has been going on for several years, with some success. This is considered under the individual metals concerned.

Plating Solutions

Plating solutions are usually aqueous. Aluminum is plated on a semicommercial scale from organic electrolytes and the refractory metals, tungsten, molybdenum, tantalum, and niobium, have been deposited from fused electrolytes. Except for strictly laboratory procedures, these are the only present exceptions to the use of aqueous systems.

Every plating solution contains ingredients to perform at least the first, and usually several, of the following functions: (*1*) provide a source of ions of the metal(s) to be deposited; (*2*) form complexes with ions of the depositing metal; (*3*) provide conductivity; (*4*) stabilize the solution against hydrolysis or other forms of decomposition; (*5*) buffer the pH of the solution; (*6*) regulate the physical form of the deposit; (*7*) aid in anode corrosion (see below under Anodes); and (*8*) modify other properties peculiar to the solution involved.

Many compounds perform more than one of the stated functions. For example, a typical nickel-plating bath contains nickel sulfate and nickel chloride, both of which provide nickel ions and the necessary conductivity; the chloride aids in anode corrosion. Boric acid is added to buffer the solution; and small amounts of organic addition agents regulate the physical form and properties of the deposit.

The sections that follow describe briefly the processes for plating the commercial metals. All of the baths are characterized by certain properties about which the plater will want information for proper control of his operations.

Current Density Range. Current density is the average current in amperes divided by the area through which that current passes; the area is usually nominal area, since the true area for any but extremely smooth electrodes is seldom known. Units used in this regard are amperes per square meter A/m^2 (92.9 mA/ft^2).

Current densities at the anode and cathode are both important; they may differ considerably although not by so large a factor as to make necessary very great differences between the anode area and the cathode area. Most solutions exhibit a range of current densities within which deposits are satisfactory and outside of which they are not; for bright plating solutions this is called the bright range. Too high a current density at the anode may render it passive and too low a current density may cause the metal to dissolve in an unwanted valence state. Other factors being equal, the higher the current density obtainable, the faster the plating rate and thus, in general, the more economical the operation, but this generalization is subject to many individual modifications.

Throwing Power. Except in the special case of concentric anode and cathode, the current density over the electrodes varies from point to point. In general the areas on the cathode nearest to the anode receive a higher current density than those more remote. Thus more metal is plated on the projections than in the recesses. Many plating solutions, however, have the ability to moderate this condition to some degree. Throwing power may be defined as the improvement in metal distribution over primary current distribution on a cathode. (Primary current distribution is the distribution of current that depends only on the geometry of the cell.) This concept is qualitative rather than quantitative because all methods of measuring throwing power are open to various theoretical objections. In addition, throwing power is a function not only of the solution but also of many other operating variables. Nevertheless the property is real enough, and plating solutions may be categorized as having excellent, good, poor, or negative throwing power.

Acidity. Plating baths are either acid, neutral, or alkaline, and for most of them close control of the pH is essential to successful operation. Acid solutions include acid copper and tin and the various fluoborate baths; since most of these contain substantial amounts of free acid, pH control is not usually required. Neutral solutions (pH from about 5 to 8) include nickel and some of the pyrophosphate baths; and alkaline baths include most of the cyanide formulations as well as stannate tin. The last-named bath is controlled not by determining the pH but by titration for free alkali.

Anodes. Anodes in a plating bath perform two functions: they act as the positive electrode, introducing current into the solution; and, in most cases, they replenish the metal deposited at the cathode, thus maintaining the balance of the bath. Anodic replenishment is often the factor placing an upper limit on the usable current density. Use of inert anodes, with chemical replenishment, can avoid this difficulty. It is standard in chromium plating (but for other reasons) and has been used to some extent for other metals; see especially Tin Plating.

Anodes may be a source of difficulty if they produce slimes and sludges as they corrode. To keep the particles thus formed from reaching the cathode, anodes are often bagged in fabric such as cotton duck or nylon. Diaphragm cells are also in use.

Temperature. Control of temperature is important in almost all plating processes; each solution is characterized by a range of temperatures within which it gives best results. Temperature affects almost all the variables of the solution: conductivity, current efficiencies, nature of the deposit, and stability.

Current Efficiency. Faraday's laws predict the amount of metal that is deposited at the cathode or dissolved at the anode, but these amounts are not always realized; the deficiency is due to evolution of hydrogen at the cathode or oxygen at the anode, or to other side reactions. In practical plating operations, current efficiency is not usually of direct concern so long as it is known, but it is often important to equalize the efficiencies at cathode and anode so that the bath remains in balance.

Purity. Plating processes differ in sensitivity to the presence of impurities in the bath. Stannate tin is extremely tolerant of most impurities; bright nickel and most zinc-plating solutions are quite sensitive. Specific means are available for purifying most plating baths by chemical treatment; filtration through activated carbon is a generally useful method for removing organic contaminants. Another common technique for purifying solutions is the process known as dummying, which consists of plating for a period of time and usually at low current densities upon cathodes that are not intended for use, such as pieces of scrap sheet steel. This low-current-density

electrolysis plates out metallic impurities and decomposes some organic contaminants.

A universal ingredient of all alkaline baths is carbonate, formed from decomposition of cyanides or pickup of CO_2 from the air. Carbonate may have deleterious effects in some baths if present at high levels. Several methods are available for removing excess carbonate; from baths formulated with sodium salts, advantage can be taken of the lowered solubility of sodium carbonate decahydrate at low temperatures, and it may be frozen out by cooling at about 0°C. For potassium baths, methods based upon the addition of lime, calcium sulfate, or barium cyanide have been used. With alkaline stannate baths the carbonate is of little significance and can be allowed to build up until drag-out removes it as fast as it is formed.

Filtration can be used to remove solid particles that may interfere with satisfactory plating by being trapped in the deposit. Depending on circumstances, baths are filtered continuously during operation, or intermittently either as need arises or on a definite schedule. Filtration is often combined with treatment with activated carbon. Some baths, particularly if used only intermittently, may be clarified by settling; care is taken not to disturb the bottom few cm in the plating tank, and occasionally the tank is emptied and the sludge removed.

Bright Plating. Most deposits from simple plating solutions are mat unless the substrate is bright and the plate very thin. If the use is purely functional this is no drawback, but for decorative purposes a bright appearance is usually desired. This brightness was formerly obtained by mechanical treatment, buffing after plating, but today most metals can be bright as they come from the bath, and require little or no further treatment, at least as regards appearance. This bright appearance is produced by the addition to the plating bath of small amounts of one or more addition agents or brighteners, usually organic compounds. Most such agents are covered by patents and the processes are proprietary. The patent literature is voluminous, and many processes are marketed. Copper, silver, gold, zinc, cadmium, tin, brass, bronze, and lead–tin (solder) also can be plated bright; tin is the most recent metal to be added to the list. Bright acid tin baths are gradually replacing older formulations in general plating, though not for electrolytic tinplate. Since tin is seldom used decoratively, the advantages of a bright tin plate seem dubious, but there is no doubt that when confronted with a choice between a mat and a bright plate, the customer will choose the latter. The mechanism by which minute amounts of specific organic compounds so markedly change the character of the deposit has not been thoroughly elucidated, in spite of a great deal of effort and a copious literature.

Maintenance of Plating Baths. All plating baths require more or less chemical control. They must be analyzed, often or seldom, depending on individual circumstances, and adjustments made. For some baths a determination of specific gravity suffices for routine control; other baths require frequent and complete analysis.

A very useful tool in control is the Hull cell test. This patented cell consists of a trapezoidal box of nonconducting material with electrodes so arranged that by performing one plating experiment the operator can observe the characteristics of the deposit over a range of current densities and deduce the condition of the bath, whether adjustments are needed, and if so, of what kind. Any needed chemical additions should usually be made in liquid form, gradually, and with thorough stirring. Some automatic machines can be set up to feed additions continuously or intermittently on a preset schedule.

Individual Plating Baths

In addition to the bath compositions given below, most metals can be plated from proprietary solutions. In many cases, exemplified by the bright nickel processes, the principal ingredients are well known and standard but the additives are proprietary. The formulas presented should be regarded as typical, and many modifications are in satisfactory use; for the effect of changes in composition, impurities, and other details, monographs on electroplating should be consulted (25,90–92).

Cadmium. Cadmium affords good corrosion protection to steel and other substrates in marine atmospheres; it is readily solderable, and has a relatively pleasing appearance. It may be plated bright, semibright or mat, depending on the addition agents used. Corrosion resistance can be enhanced by chromate conversion coatings.

Cadmium is usually plated from cyanide solutions such as that shown in Table 6. Additional carbonate is formed during operation by decomposition of cyanide and absorption of CO_2 from the air. In amounts up to about 75 g/L this is not harmful, but excessive amounts should be eliminated.

In the plating of high strength steels, cadmium from cyanide baths embrittles the steel, and sometimes this cannot be relieved by the usual baking treatments. Although fluoborate solutions have been developed to avoid the cyanide problem (93), the popularity of plating with cadmium, one of the most harmful metals in the environment, is declining.

Chromium. Chromium is the final finish on the great majority of plated consumer items. As hard chromium it also has a host of engineering uses. The chromium-plating process is unique in several respects, and it vies with nickel in capturing the attention of research workers. Although chromium can be deposited from solutions of chromium(III) salts, such baths have not been practical for commercial plating purposes and solutions of chromic acid (chromium trioxide, CrO_3) are used almost exclusively (94). In order to permit the deposition of chromium, a small amount of another anion, typically sulfate, is essential. The ratio CrO_3–H_2SO_4 is usually about 100:1 (by weight), but for special purposes it can be varied from 50:1 to 150:1 or more.

There have been many relatively recent developments in chromium plating involving improvements in the plating process itself and greater knowledge of the role of chromium in the nickel–chromium composite, leading to dramatically improved performance.

Table 6. Cadmium-Plating Bath

	Still plating	Barrel plating
CdO, g/L	25–35	17–23
Cd metal, g/L	20–30	15–20
NaCN, g/L	90–120	70–90
NaOH, as formed by the reaction $CdO + 4\ NaCN + H_2O \rightarrow Na_2Cd(CN)_4 + 2\ NaOH$		
addition agents	qs	qs
cathode current density, A/m^2	50–500	
anode current density, A/m^2	not >200	
temperature, °C	20–35	
throwing power	good	

MEMORANDUM

DATE: May 5, 1997

TO: File

FROM: Stephanie L. Kozel
Hydrogeologist SLK
NC Superfund Section

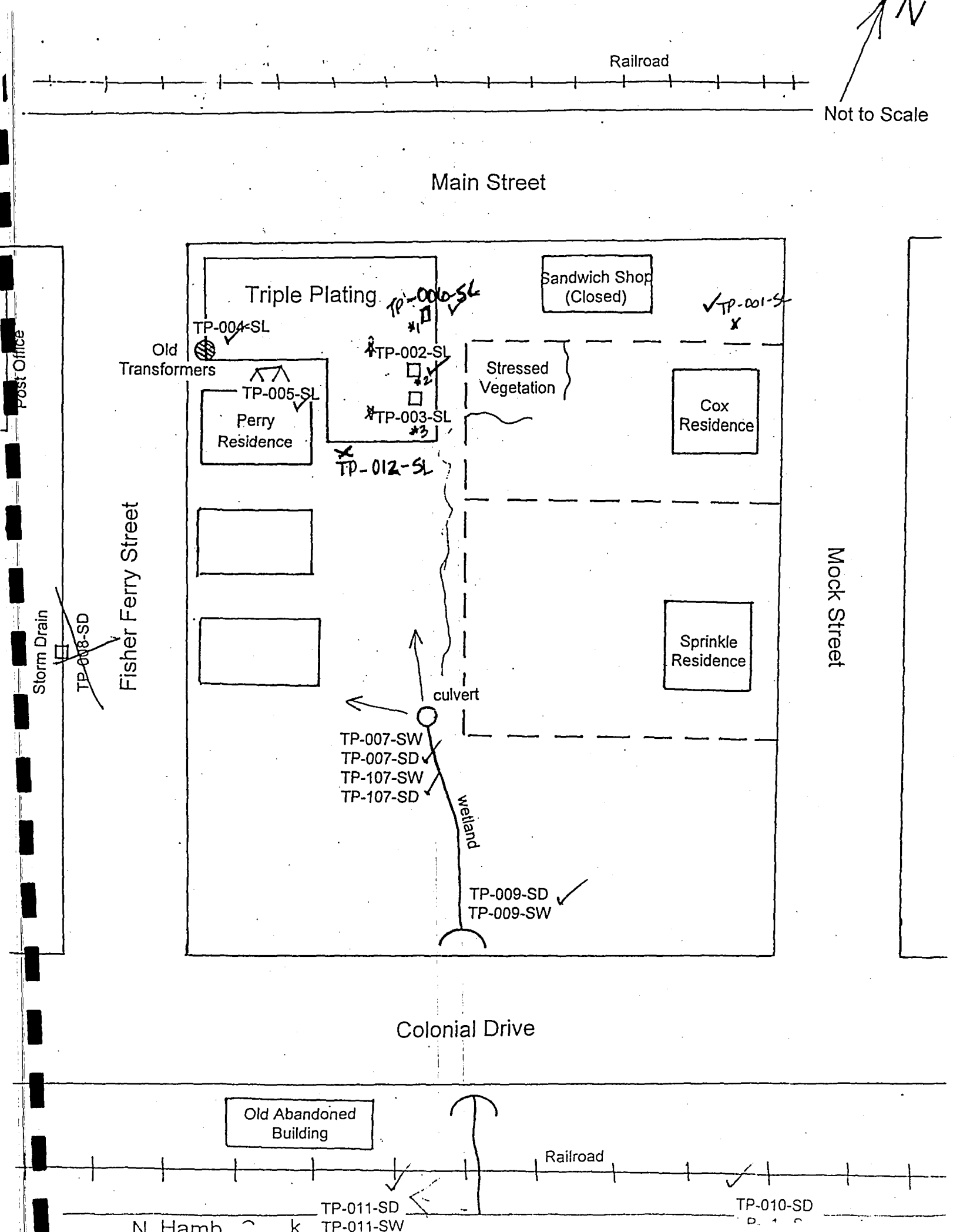
RE: Sampling Trip Report
Triple Plating, Thomasville, Davidson County
NCD# 982 115 370

On April 30, 1997 at 9:45 am, Dave Lilley, Jeannette Stanley, Donna Wilson, and I arrived at the Triple Plating site in Thomasville, NC. We surveyed the property and noted that three children were playing on the Triple Plating property, as well as a vegetable garden planted on-site. I spoke with Ms. Lee Kenney (3 Fisher Ferry Street, 910-475-4597), the grandmother of the children and renter of the property adjacent to the site. She informed me that she was the one who initially had called the Hazardous Waste Section about the dangerous conditions on the property. She claims that last September the previous manager of the Triple Plating facility dumped a yellow liquid from four 55-gallon drums labeled "Hazardous Waste" behind the facility and her house. Ms. Kenney said that her son-in-law, Kenny Camel, walked through puddles of the yellow liquid and she claims that the soles of his shoes were corroded due to the liquid. Ms. Kenney gave us permission to sample anywhere on the property. The property behind the site (6 Mock Street) is fenced and the property owners were unavailable, therefore we could not sample the stressed looking vegetation in the backyard. A background soil sample (TP-001-SL) was taken 2"-4" below the surface near the corner of Mock Street and W. Main Street.

Two four-point composite samples were taken under the old transformers (TP-004-SL) and near the swing-set (TP-005-SL) where tomatoes and onions were planted and where the children play. No unusual color or odor was detected when taking the samples. Donna Wilson and Jeannette Stanley took three samples, one from each of the "sump-like" areas within the concrete flooring of the demolished building. In sump-1, Donna W. removed the top 3" of the debris until soil was encountered before taking a sample (TP-006-SL). In sump-2, Jeannette S. dug down 1.5' with a shovel and encountered a 1" thick tan-yellow solid clayey substance. A sample was taken of the thick material (TP-002-SL). Further into the sump a total of 5 grates were located at various depths. The open hole sump continued and the discharge point, if any, is unknown. Jeannette S. dug 12" down into sump-3 removing debris and organic matter before encountering a 4" metal pipe that lead down further into the soil. The pipe was encased and grouted in place. A sample was taken of the sediment remaining on top of the concrete that surrounded the pipe (TP-003-SL). The final soil sample, a three-point composite (TP-012-SL), was taken off the edge of the concrete flooring behind the facility and Ms. Kenney's house, where she reported seeing the yellow liquid dumped. We broke for lunch at 12:15 pm.

We began taking surface water and sediment samples after lunch. The first sample was taken near Colonial Drive at the end of the wetland by the culvert (TP-009-SD/SW). All surface water samples were to be analyzed for cyanide, as well as volatiles, semi-volatiles, and metals, therefore a separate bottle was preserved with sodium hydroxide for the analysis. A wetland surface water/sediment sample was taken upstream where a culvert that drains the site empties into the wetland (TP-007-SD/SW), a duplicate of this sample was also taken (TP-107-SD/SW). N. Hamby Creek surface water /sediment samples were taken by Jeannette S. who noticed an oily sheen on the water and was able to locate the culvert discharge point into the creek. Both the background (TP-010-SD/SW)and downstream (TP-011-SD/SW) samples had oily sheens. We left the site at 4:15 pm.

A map is attatched with the sample locations and numbers used during the sampling event (note: the locations and numbers are different from the points labeled on the sampling plan).


Railroad
N
Not to Scale
Main Street
Triple Plating
TP-006-SL
Sandwich Shop
(Closed)
TP-001-SL
TP-004-SL
Old
Transformers
TP-002-SL
Stressed
Vegetation
TP-005-SL
Perry
Residence
TP-003-SL
Cox
Residence
TP-012-SL
Post Office
Fisher Ferry Street
Mock Street
Storm Drain
TP-008-SD
Sprinkle
Residence
culvert
TP-007-SW
TP-007-SD
TP-107-SW
TP-107-SD
wetland
TP-009-SD
TP-009-SW
Colonial Drive
Old Abandoned
Building
Railroad
TP-011-SD
TP-011-SW
TP-010-SD

Stephanie Kizel
4-29-97

Triple Plating April 30, 1997
Sunny ~75°
Thomasville, NC
Arrived at the site @ 9:45am.

Photograph #2: Children playing on the site and around the swingset and under the transformers.

Lee Kenny - called the Hoe waste section. Saw them dump yellow liquid (4 drums).
Son-in-law (Kenny Camel) "ate his shoes" last Sept. after building demolished. (475-4597)

Surveyed the property (on site)
3 holes in concrete
and drainage trench in concrete.

- Went to 6 Mock St., no one home
cannot get access to backyard adjacent to facility

Stephanie Kizel 4/30/97

Background sample
TP-001-SL 10:20 Am.
removed top 2" of root zone
brown silty clay loam
Photo 3: of Jedmiec taking sample
VOA - 2-4" below surface
Semi & Inorganic sample - 4" below
8' west of Mock St., 12' north
of driveway (Cox's)

10:40 Am TP-006-SL → not in Cox's yard
but sump area (1st)
(Donna taking sample)
approx. 6" down in sump
Photo: 4

TP-005-SL → 4 point composite
10:40 Am around the swingset.
approx. 4" below surface.
green grass growing.
dark rich soils.

Stephanie Kozel 9/30/97

11:00 Am
TP-004-SL - transformer
area 3 point composite
traverse across the area.
dig with poles in a
straight line.
VOA + 2 Semi/inorganics
collected @ ~ 4-6"
below surface - dug around
bricks, rocks, & roots to "clean"
undisturbed rich soil

TP-012-SL → area Ms. Kenney
stated that 4 drums were
dumped w/a yellowish
thick sludge.
~~SV~~ dug ~ 6"-1' to soil that
seemed natural. 3 point composite
VOA collected at 1150
Metals and Semis collected at 1155
soil dark gray sandy loam.

Stephanie Kozel 9/30/97

TP-003-SL - 3rd sump
TP-002-SL - 2nd sump area
Jeanette & Donna were a sampling team - took photographs & notes.

Photograph 9 → Picture of the "spill" area, 3 point composite taken looking up from the "spill" area to the pad where the trucks pulled up.

photo 10 → the big picture of the area, where the spill occurred.

12:15 Break for lunch.

Parked @ furniture warehouse.

Stephanie Kozel 4/30/97

1:50 pm VOA samples TP-009-SW at end of wetland next to Colonial Drive.
Flowing into culvert, lots of wetland vegetation willow & skunk cabbage.

Photo 13 → Donna sampling soil/sediment samples / 2:15 pm

TP-007-SW
TP-007-SD
TP-107-SW
TP-107-SD
} 2:30-3:00 pm. Stephanie
Sandy creek bottom some mud! (Jeanette's notes)
Flow out of culvert into wetland.

Photo 15 → across Colonial Dr. where the culvert crosses the street and empty into the other side, leads to N.

Stephanie Kozel 4/30/97

Hamby Creek. Then stream
N. means culvert to go
Underneath Railroad
track (Sheen on the water)
photo 16: Jeanette in middle
of N. Hamby Creek.
Perrential SW body.
photo 17: Culvert discharging
into H2O (N. Hamby creek)

3:20 pm TP-011-SW, TP-011-SD 3:20 pm
Sed sample taken from north
side of bank, mostly sand.
~~TP-010-SW~~, SK
bit dug 4" into bank and got
good silty sample.
Pungent organic odor.

3:35 TP-010-SW
only sheen upstream.

photo 18: from culvert entrance
looking upstream to
Jeanette Simpkins.

Stephanie Kozel 4/30/97

3:40 CN's metals sample

3:45 TP-010-SD taken
from south side of bank
upstream of culvert w/
empties into N. Hamby creek.
taken from bank ~ 3' into
side.

350 - Other 2 sed samples taken
TP-010-SD

Acidified/preserved @ 4:15
left site @ 4:20.

Stephanie L. Kozel 4/30/97

Triple Plating 4/30/97

arrived site 0950

partly cloudy, light breeze

~ 55°F.

Team Members: Donna Wilson

Dave Lilly

Jeanette Stanley

Project Leader - Stephanie Kozel

Noted 3 toddlers + adult

playing on site.

Photo #1 Home + Chicken

Photo #2 Home + Transformers.

TP-006-SL -

Donna removed top 3" soil to

old sump concrete. Dug to 3".

Soil/fill dark loamy sand.

Photo #4 TP-006-SL
1044 - VOA
1045-1047 - Semis + VOAS.

TP-002-SL
Jeanette dug down 1½ feet w/ shovel, removing misc. organic debris and scrap metal
At bottom of sump - 1 inch think tanish/yellowish solid substance was sampled - clayey

An object that appeared to be a grate was removed in the debris near the bottom
Volume of sump 1½ feet deep by 3 feet by 18 inches
ESTIMATED
VOA Sample taken 11:05
Photo #5 - ~~#~~ of sump
the apparent grate was in SE corner of sump
Soil Sample 11:12
A slot for a vertical grate was present in the sump

A total of 5 grates were randomly placed in the sump

TP-003-SL

Jeanette digs down through organic debris about 12 inches and encountered the top of a vertical metal pipe approx. 4 inches in diameter

About 12 inches down in pipe is standing water

Around side of pipe is watery organics with trash - drink cans, cups plastic, metal lids, etc

Photos 6 and 7

Size of sump 18" x 18" approx.

It is not known where the pipe leads to.

Sample watery dk. brown-gray silt

VOA 11:43 Semi & Metal 11:45

Photo #8 Sample location 003-SL on Right, Note concrete-filled trench & possible add. sump on right & foreground of photo

Donna noted the year 1945 on southern center area of foundation

left for lunch 12:15 / Took 45 min lunch

Photo#11 1350
wetland area, sample point
TP-009 - SW+SD
Photo#12 large area of wetland
looking N from street toward
site. Stream was flowing
Water:
VOA collected 1355
metals + cyanide 1357
Semis 1400
Sediment:
VOA collected 1405
Semi's + Metals 1410
Left sample area 1415

Arrived sample area 007+107
at 1425
Stream slightly flowing from
platting area + not from street

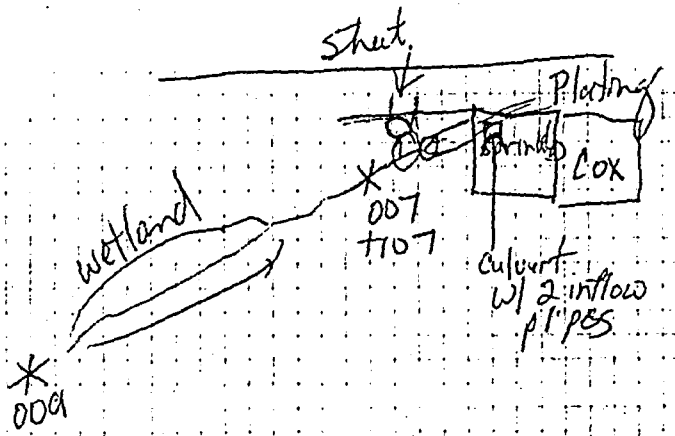


Photo #13 - Sample location TP-007-SW

VOA collected 1435
Metals + CN collected 1435
Amber 1440
Sediment:
VOA 1445
Semis + Metals 1450

Photo #14 - Top of wetland looking down gradient toward street

Photo #15 overland pathway from culvert under Colonial, flowing toward stream

CERCLA Ref. 21

NORTH CAROLINA
DEPARTMENT OF CONSERVATION AND DEVELOPMENT

BEN E. DOUGLAS, DIRECTOR

DIVISION OF MINERAL RESOURCES

JASPER L. STUCKEY, STATE GEOLOGIST

BULLETIN NUMBER 68

GEOLOGY AND GROUND WATER IN THE Statesville Area, North Carolina

BY

HARRY E. LEGRAND
GEOLOGIST, U. S. GEOLOGICAL SURVEY

PREPARED COOPERATIVELY BY THE GEOLOGICAL SURVEY
UNITED STATES DEPARTMENT OF THE INTERIOR

1954

DAVIDSON COUNTY

(Area: 547 square miles. Population: 62,244)

Geography.—Davidson County is the easternmost county discussed in this report. Lexington, the county seat, and Thomasville are the only large towns. Leading industries are agriculture and the manufacture of textiles and furniture. Dairying and the growing of wheat, oats, corn, and hay are the chief rural activities. Railroads and paved highways serve the populated areas of the county.

Davidson County is in the heart of the Piedmont Plateau. Its surface is formed by the uplifted and partly dissected peneplain that was developed on the underlying crystalline rocks. Most of the hills are smoothly rounded and covered by vegetation. Except where flood plains border the streams, the slopes are steep enough to cause the land to be well drained. A few shallow enclosed depressions, in which water rarely stands, occur on the broad interstream areas underlain by gabbro in the area around Linwood. The topography is most hilly along the valley of the Yadkin River near the west and south borders of the county.

The drainage within the county is mostly southward to the Yadkin River. The streams are small but numerous. The heads of the streams are springs that emerge from reentrants in the interstream areas. Although the springs are small, they are numerous enough to produce fair-sized creeks having perennial flows. Parts of many streams appear to follow structural weaknesses of the underlying rocks, particularly in the Slate belt in the southeastern part of the county. However, in general the causes for the particular courses of the streams are not obvious, and until detailed geologic work can be done the extent of adjustment of streams to rock structures probably will not be known.

Geology.—Although a great variety of rocks occur in Davidson County they may conveniently be divided into the following four major groups: granite, diorite, gabbro, and the volcanic rocks.

Granite underlies a large area in the northwestern part of the county. It is typically exposed in the area north, west, and southwest of Welcome. It is a light-colored rock containing large phenocrysts of feldspar and upon weathering, forms a gravelly and sandy soil. Outcrops of fresh granite are not common, but the soil zone is thin enough in many places to allow parts of the weathered rock to be exposed. The nearly horizontal type of jointing, called sheeting, is very common.

The boundaries of the granite with other rocks have not been precisely determined. In an area west of Lexington gabbro and diorite are in contact with the granite, but in most places only the approximate contact, as shown on the geologic map (p. 60), is represented by a zone in which there is an increase in the quantity of diorite bodies to the east. In fact, rocks of the granite and diorite complex occur in an extensive area east of the large granite area and seem to grade into both the porphyritic granite and the gabbro.

Gabbro occurs in two large areas and in several small areas. As classed in this report it is a basic rock which varies considerably from place to place in composition but which more nearly approximates gabbro than any other rock. It occurs typically in the area around Linwood. Its area is characterized by a thick mantle of red and brown soil on the uplands.

Rocks of the Carolina Slate belt occur in the southeastern part of Davidson County. A part of this belt, including the Cid mining district, was mapped by Pogue whose description follows (1910, p. 26):

> "Wide bands of a sedimentary, slate-like rock, composed of varying admixtures of volcanic ash and land waste, have the greatest areal extent. Intercalated with these occur strips and lenses of acid and basic volcanic rocks, represented by fine- and coarse-grained volcanic ejecta and old lava flows. The acid rocks include fine tuffs, coarse tuffs, and breccias, chiefly of a rhyolitic and dacitic character; together with flows of rhyolite and dacite. The basic series embraces fine tuffs, coarse tuffs, breccias, and flows of an andesitic and trachy-andesitic stamp. Gabbro and diabase dikes cut the other formations."

Like those of the remainder of the county the rocks of the Slate belt have been folded and faulted sufficiently to be tipped on edge and to have a prevailing northeast trend. In general the topography is hillier and the soil zone thinner than in the western part of the county.

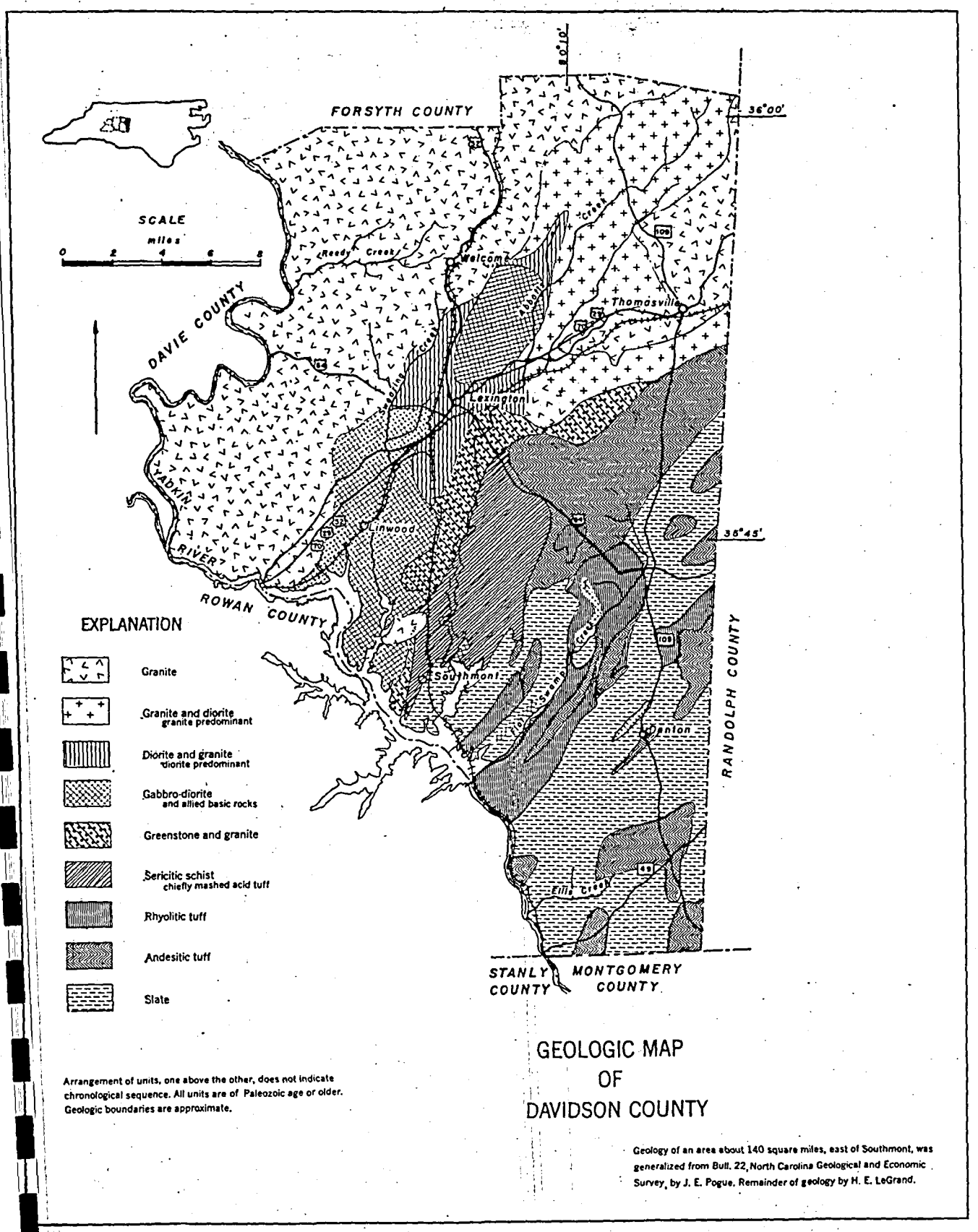


FIGURE 19.—*Geologic map of Davidson County.*

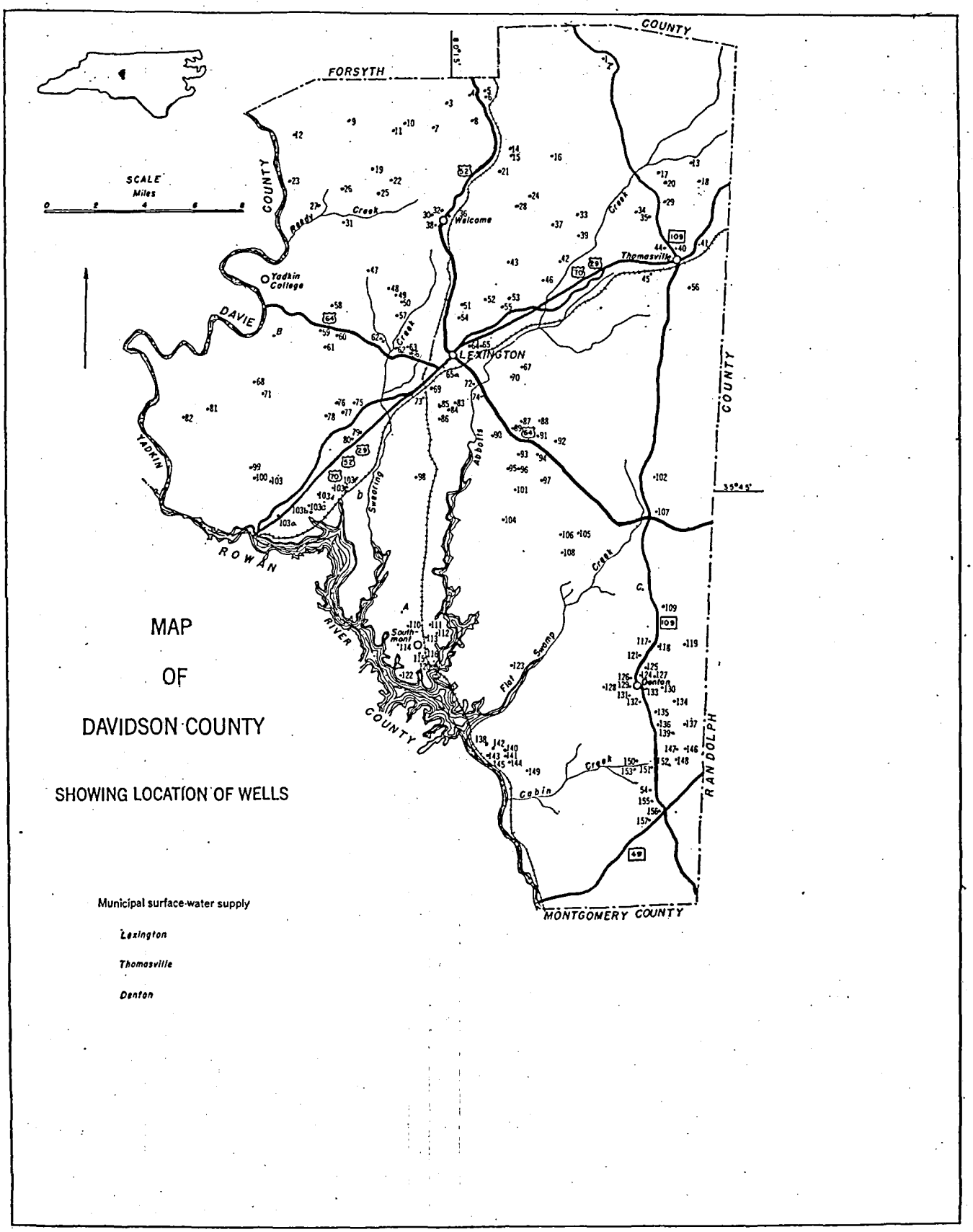


FIGURE 20.—*Map of Davidson County showing location of wells.*

The relation of the volcanic rocks to the intrusive rocks on the west is not clear. The intrusive rocks are composed of a network of granite and more basic rocks of a dioritic character. Some of the dioritic material adjacent to the volcanic belt represents mashed and altered andesitic tuff, whereas other parts appear to be intrusive diorite. It is probable that the development of the granite and diorite complex represents a late stage in the igneous activity that produced the volcanic rocks. Although numerous minor faults, and possibly major faults, occur in the belt, the present reconnaissance study did not produce evidence to show the existence of a major fault between the intrusive and extrusive belts. Unraveling the development of the volcanic rocks and the adjacent intrusive complex posed the most difficult problem with which the writer was faced in the Statesville area.

Ground water.—With the exception of the municipal water supplies of Lexington and Thomasville, which come from streams, most domestic and many industrial water supplies are from wells. A few domestic supplies are obtained from springs.

Many rural supplies are obtained from dug or bored wells 18 inches or larger in diameter. These wells, being relatively shallow, develop water from the clayey residual material above bedrock. They are generally satisfactory for domestic purposes if less than 2 gallons of water a minute is needed. They may fail during dry seasons if the water table declines near, or below, the bottoms of the wells.

In recent years there has been a large increase in the number of drilled wells in the rural parts of the county. Two-inch shot-drilled wells are especially common. Most of them are capable of furnishing 3 to 8 gallons a minute—adequate for general domestic use. The present investigation deals chiefly with 3 inch and larger drilled wells, which reveal ground-water conditions better than other types of wells.

The records of the yields of wells in the county indicate the water-yielding properties of the different kinds of rocks only in a general way. Many of the good wells penetrate gabbro or diorite. The gabbro and diorite trending slightly west of south through Lexington and Linwood probably are capable of larger yields than are the other rocks. Owing to the deep mantle of residuum on the hills, wells on hills in the gabbro and diorite should be more productive than wells on hills in other types of rocks. A large number of wells yielding less than 10 gallons a minute have been drilled in the granite in the northwest part of the county. Almost all these unsuccessful wells were drilled on hills, where the residuum is too thin to store much water and where the prominent openings in the granite are convex exfoliation joints which allow water to drain readily away from the hills to the valleys. Large feldspar crystals, which have been disengaged from the granite on the hills and washed into the lowlands, form permeable gravel beneath the flood plains along some of the streams. These gravel deposits constitute a potentially productive source of ground water—probably capable of furnishing more than 500 gallons a minute to individual wells in a number of places in the western part of the county. The slates and volcanic rocks of the southeastern part of the county are similar to other rocks in water-yielding properties. However, the slates and acid volcanic rocks in general are covered by only a thin layer of residuum, suggesting that they are poorer water-bearing rocks than the basic volcanic rocks and gabbro.

Analyses of six samples of water from wells and two samples from springs are given in a table following the well records. All the samples were from diorite or gabbro except well 19, from granite, and spring C from acid tuff. Although only one sample of water was collected from granite in the county, the analysis of this water is typical of those from granite everywhere in the Statesville area. The water from diorite and gabbro contains about three times as much dissolved solids as does water in granite. The mineral content of the water from well 56 is probably as great as that from any other well water in the county. It is probable that water from well 103d, containing 172 parts per million of dissolved solids, is typical of that from diorite and gabbro.

Temperatures of well waters range from about 58° to about 63°F.

DEPARTMENT OF COMMERCE
R. Hodges, Secretary

WEATHER BUREAU
F. W. Reichelderfer, Chief

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

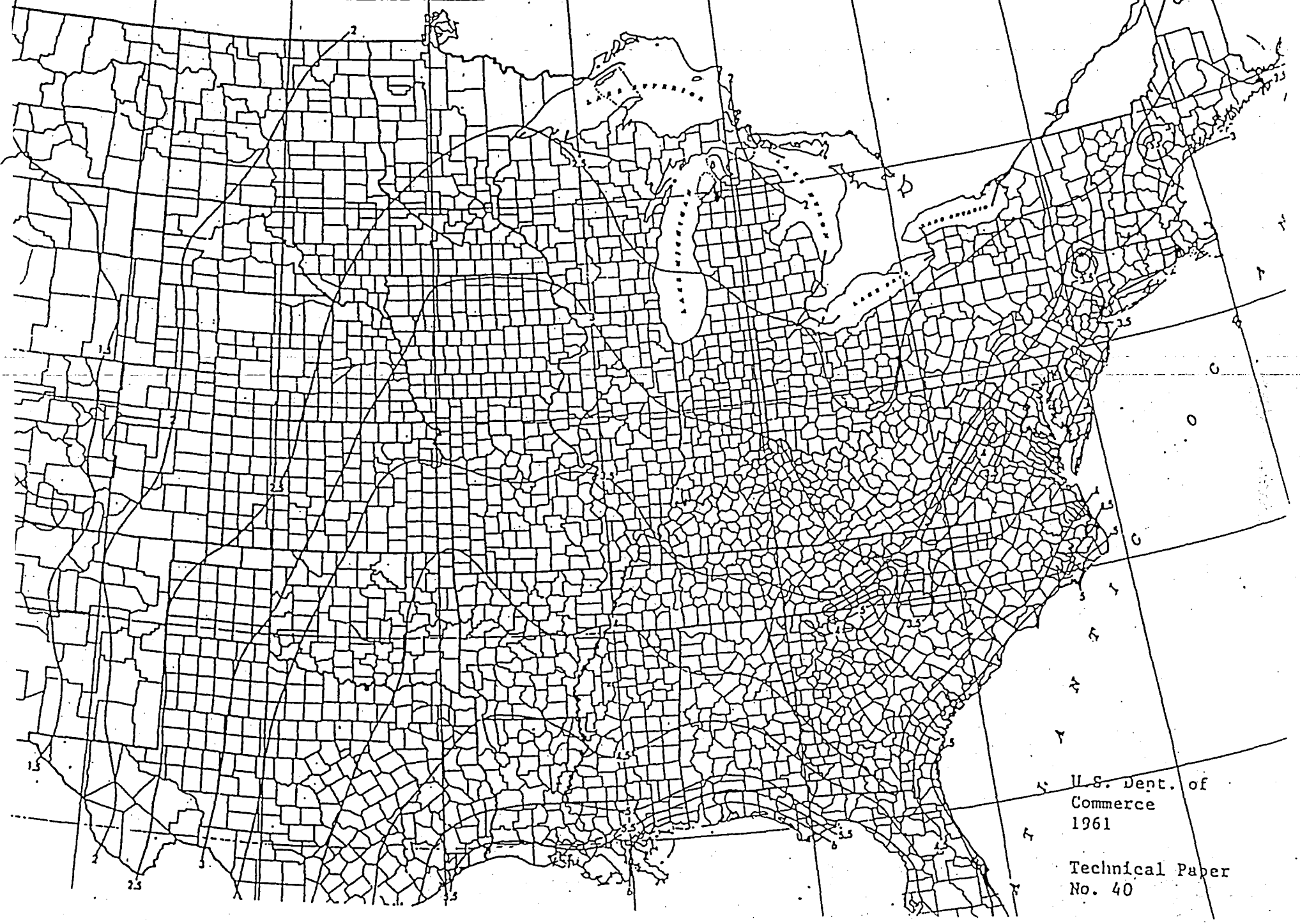
for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

PROPERTY OF EPA
FIT IV

Ref. 22

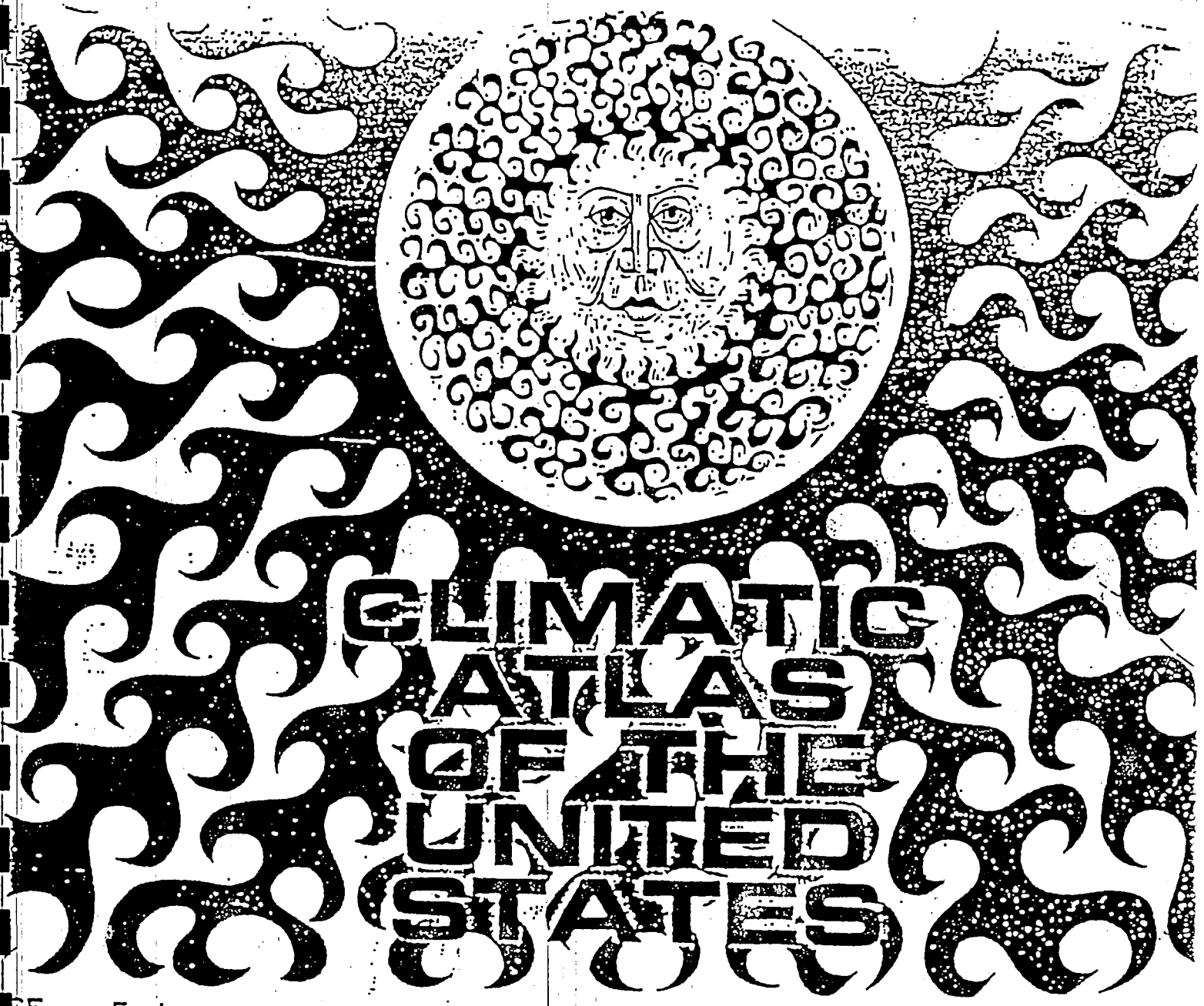
2-YEAR 24-HOUR RAINFALL (INCHES)



U.S. Dept. of Commerce
1961

Technical Paper
No. 40

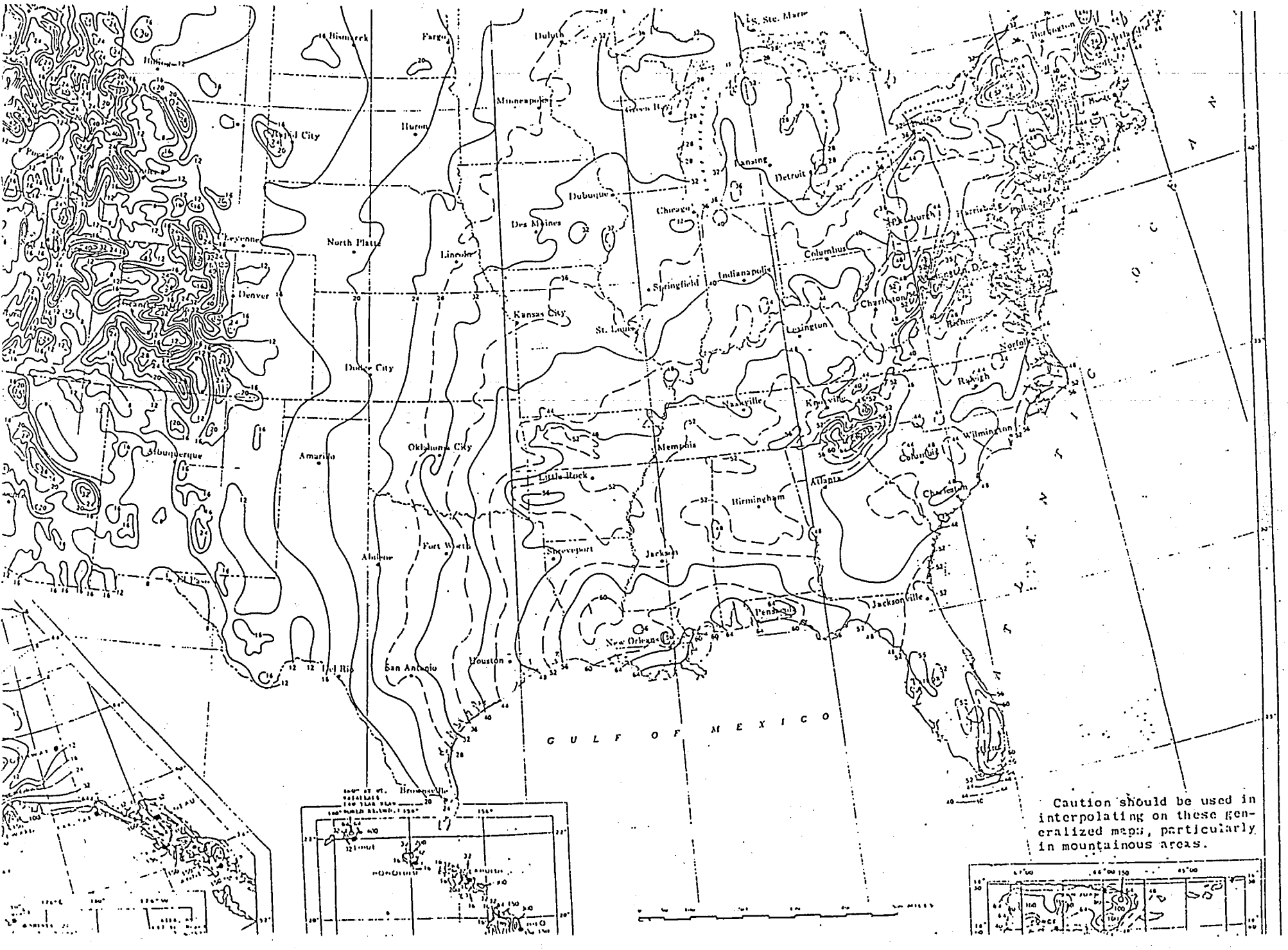
Ref. 23

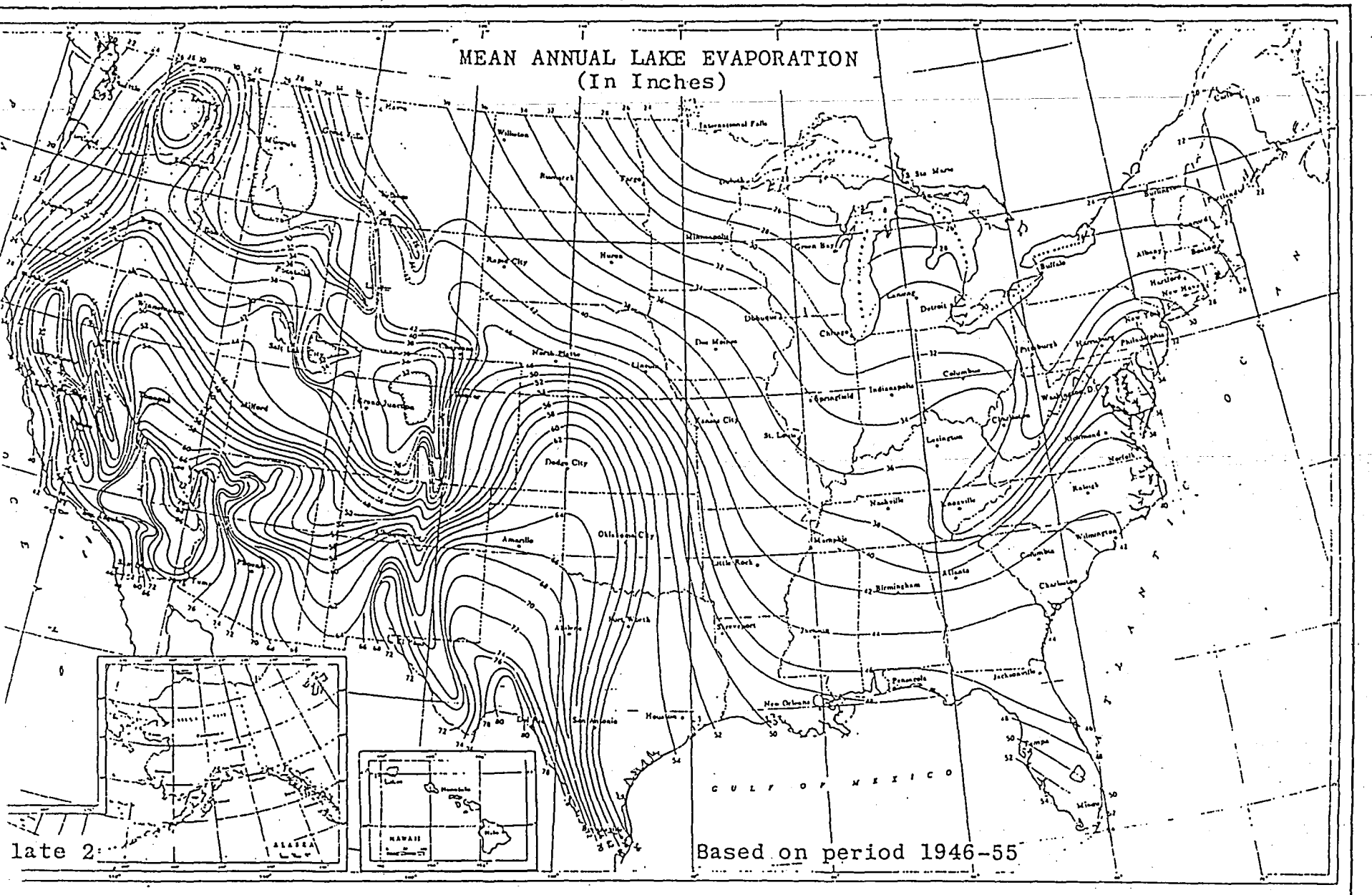


CLIMATIC ATLAS OF THE UNITED STATES

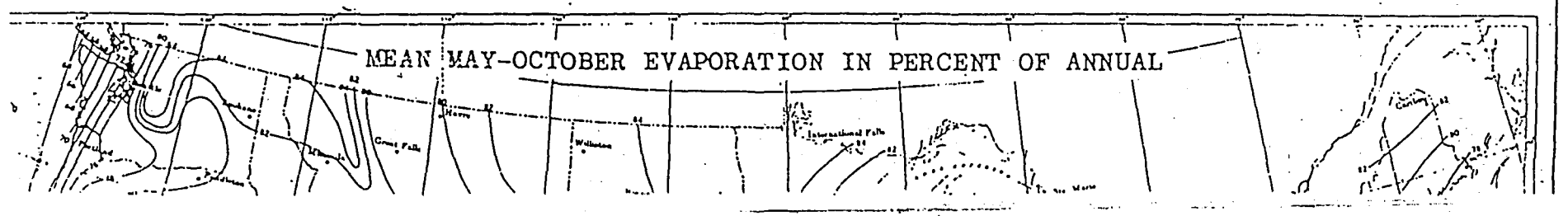
CE . Environmental Science Services Administration . Environmental Data Service

NORMAL ANNUAL TOTAL PRECIPITATION (INCHES)




MEAN ANNUAL LAKE EVAPORATION
(In Inches)
Based on period 1946-55
GULF OF MEXICO
ALASKA
HAWAII

late 2


MEAN MAY-OCTOBER EVAPORATION IN PERCENT OF ANNUAL

Davidson County, Guilford County, Randolph County, Lexington City, and High Point City water line maps. 1995.

MEMORANDUM

DATE: April 1, 1997

TO: File

FROM: Public Water Supply

0276140	TWIN OAKS WATER SYSTEM	C	104	9106650817 WELL #1	G P 354950.000 800155.000
0276453	BIBLE BAPTIST CHURCH	N	100	9108858582 WELL	G P 355447.000 800200.000

Ref. 25

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

1990 CPH-1-35

Ref. 26

CENSUS '90

1990 Census of Population and Housing

Summary Population and Housing Characteristics

North Carolina

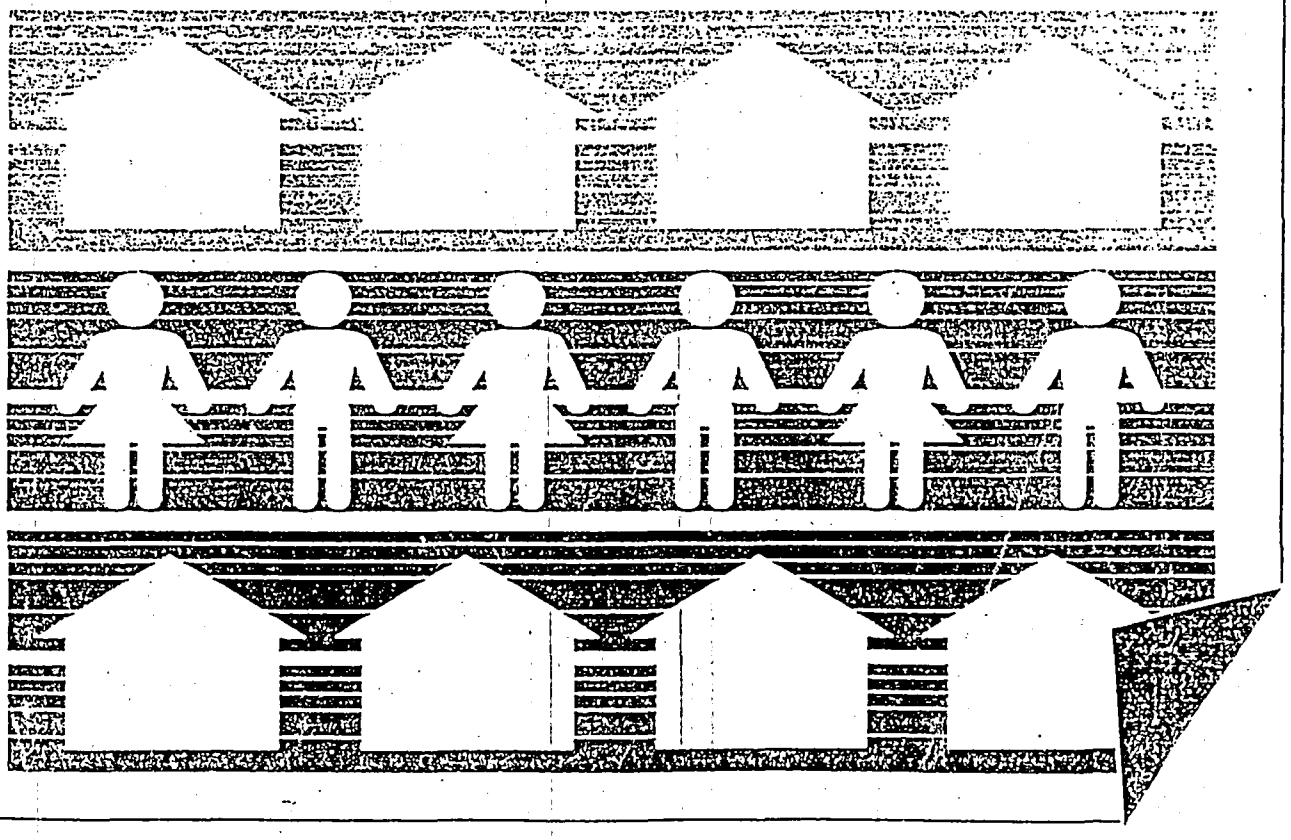


Table 6. Household, Family, and Group Quarters Characteristics: 1990

[For definitions of terms and meanings of symbols, see text]

State / County / Place and [In Selected States] County Subdivision	Persons in households	All households	Family households: Total	Family households: Married-couple family	Family households: Female householder, no husband present	Nonfamily households: Total	Nonfamily households: Householder living alone: Total	Nonfamily households: Householder living alone: 65 years and over: Total	Nonfamily households: Householder living alone: 65 years and over: Female	Persons per— Household	Persons per— Family	Persons in group quarters: Total	Persons in group quarters: Institutionalized persons	Persons in group quarters: Other persons in group quarters
The State	6 404 167	2 517 028	1 812 053	1 424 206	308 876	704 973	594 968	226 344	182 329	2.54	3.03	224 470	83 400	141 070
COUNTY														
Alamance County	105 327	42 652	30 745	24 295	5 130	11 907	10 467	4 596	3 748	2.47	2.94	2 886	1 173	1 713
Alexander County	27 245	10 331	8 049	6 715	952	2 282	2 022	839	651	2.64	3.02	299	299	-
Alleghany County	9 381	3 894	2 829	2 421	303	1 065	990	539	433	2.41	2.88	209	193	16
Anson County	23 117	8 531	6 359	4 552	1 475	2 172	2 042	1 075	860	2.71	3.23	357	344	13
Ashe County	21 965	8 848	6 748	5 643	816	2 100	1 935	1 014	809	2.48	2.89	244	220	24
Avery County	13 918	5 520	4 162	3 500	480	1 358	1 229	549	420	2.52	2.95	949	320	629
Beaufort County	41 704	16 157	11 840	9 140	2 186	4 317	3 915	1 974	1 605	2.58	3.07	579	441	138
Bertie County	20 321	7 412	5 501	3 831	1 419	1 911	1 797	957	755	2.74	3.28	67	67	-
Bladen County	28 150	10 760	8 017	5 854	1 782	2 743	2 579	1 243	1 000	2.62	3.11	513	509	4
Brunswick County	50 497	20 069	15 291	12 636	2 031	4 778	4 227	1 640	1 194	2.52	2.91	488	307	181
Buncombe County	189 713	70 802	49 335	39 637	7 684	21 467	18 868	8 174	6 642	2.40	2.90	5 108	2 966	2 142
Burke County	73 281	29 164	21 711	17 462	3 148	7 473	6 589	2 706	2 228	2.51	2.93	2 463	2 410	53
Cabarrus County	97 255	37 515	28 367	23 279	3 972	9 148	8 038	3 509	2 971	2.59	3.02	1 680	1 223	457
Caldwell County	69 917	27 172	20 656	16 853	2 944	6 516	5 660	2 287	1 846	2.57	2.97	792	735	57
Camden County	5 875	2 180	1 692	1 365	225	488	437	234	169	2.69	3.11	29	-	29
Carteret County	51 554	21 236	15 276	12 681	2 021	5 962	5 081	1 901	1 431	2.43	2.88	1 002	750	252
Caswell County	20 053	7 468	5 781	4 454	1 024	1 687	1 503	727	573	2.69	3.13	640	624	16
Catawba County	116 367	45 700	33 773	27 418	4 841	11 927	10 270	3 844	3 115	2.55	2.99	2 025	1 134	891
Chatham County	38 315	15 293	11 227	9 115	1 805	4 066	3 445	1 412	1 141	2.51	2.95	444	377	67
Cherokee County	19 809	7 966	6 069	5 065	765	1 897	1 764	975	759	2.50	2.91	271	196	75
Chowan County	13 233	5 113	3 775	2 842	787	1 338	1 238	641	499	2.59	3.07	273	273	-
Clay County	7 150	2 928	2 177	1 894	203	751	699	418	314	2.44	2.90	5	4	1
Cleveland County	83 012	32 037	24 282	19 011	4 168	7 755	7 011	3 202	2 624	2.59	3.02	1 702	915	787
Columbus County	48 953	18 459	13 754	10 381	2 757	4 705	4 351	2 152	1 895	2.65	3.15	634	624	10
Craven County	78 014	29 542	22 481	18 189	3 511	7 061	6 121	2 436	1 930	2.64	3.07	3 599	811	2 788
Cumberland County	253 362	91 500	69 966	54 433	12 883	21 534	17 718	4 724	3 752	2.77	3.19	21 204	1 499	19 705
Currituck County	13 486	5 038	3 854	3 272	407	1 184	964	419	312	2.68	3.08	250	217	33
Dare County	22 542	9 349	6 425	5 498	682	2 924	2 264	714	522	2.41	2.88	204	140	64
Davidson County	125 358	48 944	37 176	30 410	5 120	11 768	10 282	4 189	3 319	2.56	2.96	1 319	1 277	42
Davie County	27 541	10 785	8 270	6 999	953	2 515	2 246	1 025	817	2.55	2.95	318	258	30
Duplin County	39 368	14 925	11 036	8 378	2 099	3 889	3 553	1 779	1 439	2.64	3.12	627	560	67
Durham County	173 310	72 297	45 065	33 614	10 321	26 312	20 807	5 553	4 471	2.40	2.99	8 525	2 175	6 350
Edgecombe County	55 856	20 319	15 065	10 000	4 293	5 234	4 703	2 124	1 717	2.75	3.25	702	657	45
Forsyth County	257 466	107 419	72 621	55 715	14 052	34 798	29 870	9 779	7 975	2.40	2.94	8 412	3 493	4 919
Franklin County	35 237	13 503	10 047	7 640	1 865	3 456	3 120	1 364	1 126	2.61	3.07	1 177	568	609
Gaston County	172 791	65 347	49 754	38 905	8 430	15 593	13 580	5 720	4 720	2.64	3.07	2 302	1 458	844
Gates County	9 202	3 352	2 593	2 040	404	759	705	394	288	2.75	3.19	103	102	1
Graham County	7 176	2 772	2 166	1 839	246	606	562	294	225	2.59	2.98	20	18	2
Granville County	35 191	13 134	9 883	7 501	1 857	3 251	2 889	1 236	978	2.68	3.13	3 154	3 079	75
Greene County	14 665	5 395	4 066	3 033	875	1 329	1 189	574	481	2.72	3.18	719	704	15
Guilford County	335 348	137 706	92 891	71 195	17 570	44 815	36 578	12 180	9 951	2.44	2.97	12 072	3 064	8 968
Halifax County	54 122	20 335	14 874	10 092	4 018	5 461	5 005	2 398	1 897	2.66	3.18	1 394	1 356	38
Harnett County	85 340	25 150	18 529	14 489	3 154	6 621	5 773	2 438	1 962	2.80	3.06	2 482	1 240	1 242
Haywood County	46 152	19 211	14 120	11 831	1 774	5 091	4 601	2 337	1 866	2.40	2.83	790	751	39
Henderson County	68 206	28 709	21 169	18 113	2 344	7 540	6 838	3 531	2 859	2.38	2.80	1 079	967	112
Hertford County	21 612	8 150	5 921	4 164	1 473	2 229	2 063	977	766	2.65	3.19	911	279	632
Hoke County	21 612	7 405	5 794	3 847	1 605	1 611	1 419	523	420	2.92	3.34	1 244	1 244	-
Hyde County	5 363	2 094	1 533	1 151	321	561	516	269	191	2.57	3.07	28	19	9
Iredell County	92 062	35 573	26 869	21 726	4 023	8 704	7 646	3 271	2 682	2.59	3.02	849	814	35
Jackson County	23 834	9 683	6 970	5 749	961	2 713	2 242	966	745	2.46	2.91	3 012	280	2 732
Johnston County	80 341	31 566	23 217	18 566	3 634	8 349	7 441	3 360	2 750	2.55	3.01	965	893	72
Jones County	9 412	3 492	2 639	2 034	482	853	774	406	311	2.70	3.17	2	2	-
Lee County	40 651	15 669	11 739	9 087	2 135	3 950	3 482	1 369	1 107	2.59	3.03	723	672	51
Lenoir County	55 652	21 938	15 611	11 131	3 798	6 327	5 706	2 580	2 073	2.54	3.06	1 822	1 559	63
Lincoln County	40 802	18 764	14 661	12 207	1 827	4 103	3 580	1 467	1 173	2.65	3.03	517	517	-
McDowell County	35 064	13 680	10 366	8 578	1 363	3 314	2 996	1 309	1 135	2.56	2.99	817	416	201
Macon County	22 992	9 834	7 235	6 236	773	2 599	2 368	1 307	1 021	2.34	2.78	507	233	274
Madison County	16 104	6 488	4 806	4 058	516	1 682	1 510	789	581	2.48	2.92	849	104	745
Martin County	24 813	9 317	6 900	5 087	1 518	2 417	2 213	1 100	906	2.66	3.17	265	257	8
Mecklenburg County	499 886	200 219	134 361	103 211	25 013	65 858	52 037	12 990	10 610	2.50	3.05	11 547	3 578	7 969
Mitchell County	14 288	5 779	4 420	3 777	479	1 359	1 265	669	539	2.47	2.88	145	130	15
Montgomery County	22 279	8 290	6 274	4 823	1 119	2 016	1 838	876	890	2.69	3.14	1 067	997	70
Moore County	58 010	23 827	17 483	14 312	2 473	6 344	5 662	2 744	2 201	2.43	2.87	1 003	970	33
Nash County	75 450	29 041	21 224	16 322	3 958	7 817	6 926	2 880	2 316	2.60	3.09	1 227	807	420
New Hanover County	116 999	48 139	32 400	24 723	6 383	15 739	12 434	4 372	3 512	2.43	2.95	3 285	1 321	1 964
Northampton County	20 055	7 591	5 644	3 958	1 436	1 947	1 816	968	704	2.64	3.13	743	742	1
Onslow County	115 274	40 658	32 971	28 037	3 843	7 687	6 271	1 752	1 364	2.84	3.16	34 564	954	33 610
Orange County	84 627	36 104	21 123	16 854	3 380	14 981	10 110	2 257	1 839	2.34	2.93	9 224	770	8 454
Pamlico County	11 247	4 523	3 382	2 717	547	1 141	1 055	528	410	2.49	2.93	125	112	13
Pasquotank County	29 884	11 364	8 326	6 356	1 681	3 058	2 725	1 342	1 065	2.63	3.13	1 414	383	1 031
Pender County	28 497	11 112	8 420	6 707	1 371	2 692	2 368	1 055	796	2.56	2.99	358	348	10
Perquimans County	10 303	3 968	3 038	2 444	468	950	862	443	342	2.58	3.02	144	144	-
Person County	29 830	11 423	8 570	6 607	1 547	2 853	2 608	1 209	994	2.61	3.07	350	304	46
Pitt County	102 409	40 421	26 434	19 369	5 857	14 057	10 412	3 104	2 511	2.53	3.10	5 524	946	4 578
Polk County	14 187	6 110	4 346	3 693	511	1 764	1 509	952	768	2.32	2.79	229	227	2
Randolph County	105 440	41 096	31 363	26 135	3 957	9 733	8 590	3 435	2 789	2.57	2.97	1 106	1 050	56
Richmond County	43 534	18 793	12 270	9 128	2 551	4 523	4 174	2 011	1 800	2.59	3.11	984	875	109
Robeson County	103 186	36 154	27 429	18 451	7 353	8 725	7 891	3 355	2 851	2.85	3.34	1 993	1 280	713
Rockingham County	85 242	33 446	24 671	19 351	4 193	8 775	7 959	3 669	2 982	2.55	3.02	822	781	41
Rowan County	127 079	42 512	31 055	25 100	4 618	11 457	10 235	4 748	3 815	2.52	2.99	3 526	2 408	1 118
Rutherford County	56 197	22 198	16 480	13 191	2 551	5 718	5 255	2 556	2 050	2.53	2.99	721	721	-
Sampson County	46 754	17 526	13 191	10 058	2 525	4 335	3 975	2 032	1 610	2.67	3.14	543	490	53
Scotland County	32 679	11 837	8 971	6 225	2 308	2 866	2 618	1 173	935	2.78	3.25	1 075	401	674
Stanly County	50 734	19 747	14 967	12 451	1 975	4 780	4 396	2 164	1 785	2.57	3.01	1 031	470	561
Stokes County	36 862	14 123	11 022	9 341	1 273	3 101	2 825	1 246	1 018	2.61	3.00	361	361	-
Surry County	60 950	24 252	18 252	15 253	2 341	6 000	5 474	2 732	2 258	2.51	2.94	754	650	104
Swain County	10 653	4 173	3 083	2 382	550	1 090	985	467	369	2.55	3.01	615	215	400
Transylvania County	24 283	9 924	7 496	6 442	797	2 428	2 224	1 131	912	2.45	2.86	1 237	178	1 059
Tyrrell County	3 852	1 471	1 078	810	213	393	359	204	148	2.62	3.13	4	4	-S
Union County	82 633	29 307	23 530	19 807	3 063	5 777	5 018	2 148	1 755	2.82	3.18	1 578	455	1 123

TPSR [POSTSCRIPT] CPH137 CENSUS90 72580400 04/23/91 5:06 PM MACHINE: C DATA:CENSUS90'PH1TP8DAT37. 04/23/91 16:51:04 OUTPUT:ONSITE-PS196 PAGE: 106
TBF:CENSUS90'82. 04/23/91 16:51:23 UTF:CENSUS90'93. 04/23/91 16:51:23 META:CENSUS90'PH1TABLE837. 04/23/91 17:02:14

NOTE: The population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts

Site Name: Triple Plating
Site Number: NCD 982 155 370

Site Location: Thomasville, Davidson County, N.C.

Latitude: 35 52 55.0
Longitude: 080 04 55.5

Date: April 14, 1997

Calculation Results

Distance from Site Location	Population Per Ring	Population Cumulative	Number of Households Per Ring	Number of Households Cumulative
0 to 1/4 mile	265	265	122	122
>1/4 to 1/2 mile	1,644	1,909	753	875
>1/2 to 1 mile	6,066	7,975	2,636	3,511
>1 to 2 miles	8,454	16,429	3,485	6,996
>2 to 3 miles	6,656	23,085	2,681	9,677
>3 to 4 miles	7,658	30,743	2,929	12,606

Note: The populations and number of households within specified target distance rings were calculated for the NC Superfund Section by the NC State Center for Geographic Information and Analysis using the 1990 US Census data. These values were calculated by summing the population and the number of households data for each census block located within each target ring. For census blocks lying only partially within the ring, the per cent area of the block within the ring was multiplied by the population and household densities of the block.

MEMORANDUM

DATE: June 18, 1997

TO: File

FROM: Stephanie L. Kozel
Hydrogeologist SLK.
NC Superfund Section

RE: Total Population Receiving Drinking Water From Groundwater
Triple Plating Facility
NCD #982 115 370

The city of Thomasville and a majority of Davidson County and the surrounding counties receive drinking water from the municipal water supply systems. The following table shows the total estimated population receiving drinking water from groundwater within the four-mile radius of the site. This was determined by counting the number of houses on the USGS topographic map that use private wells to supply drinking water to the household. These houses were counted and multiplied by 2.85 persons-per-household (the population density for Davidson County in the 1990 US Census). Population data reported by the North Carolina State Center for Geographic Information and Analysis (CGIA) and the house count was used to calculate the population for the various distance rings of the site.

Total Estimated Population Receiving Drinking Water From Groundwater Wells

Distance Ring (miles)	Population served by Private Supply Wells	Cumulative Population using Groundwater
0.00 - 0.25	0	0
0.25 - 0.50	0	0
0.50 - 1.00	0	0
1.00 - 2.00	0	0
2.00 - 3.00	271	271
3.00 - 4.00	912	1183

MEMO

TO: Superfund Section Staff

FROM: Jeanette Stanley
Environmental Chemist
NC Superfund Section

Jeanette Stanley

DATE: August 15, 1996

SUBJECT: Update on Status of Wellhead Protection Programs in N.C.

I spoke with Mr. Randy Prillaman, Hydrogeologist, NC DEM (919) 715-6187. He said that the Wellhead Protection Area implementation plan written by him and submitted to US EPA in late December 1994 has been approved. This plan calls for protection of a whole area based on a calculation using recharge rate and pumping rate as variables.

North Carolina now has primacy in approval of wellhead protection areas. None have yet been implemented. Several requests for approval have been received but no areas have yet been approved. Mr. Prillaman said that he could not project a date when a plan would be approved.

MEMORANDUM

DATE: June 13, 1997

TO: File

FROM: Stephanie L. Kozel SLK
Hydrogeologist
NC Superfund Section

RE: Flood Insurance Rate Maps and the Area
Triple Plating Facility
NCD #982 115 370

Attached is the Flood Insurance Rate Map (FIRM) for the Thomasville Area. The site is located within the Thomasville City Limits. The FIRM map does not include the area within Thomasville's City Limits where the site is located. From observation, the site is at a higher elevation than the small intermittent creek. The site appears to not be within the flood plain of the intermittent creek nor the flood plain of North Hamby Creek, south of the site.

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

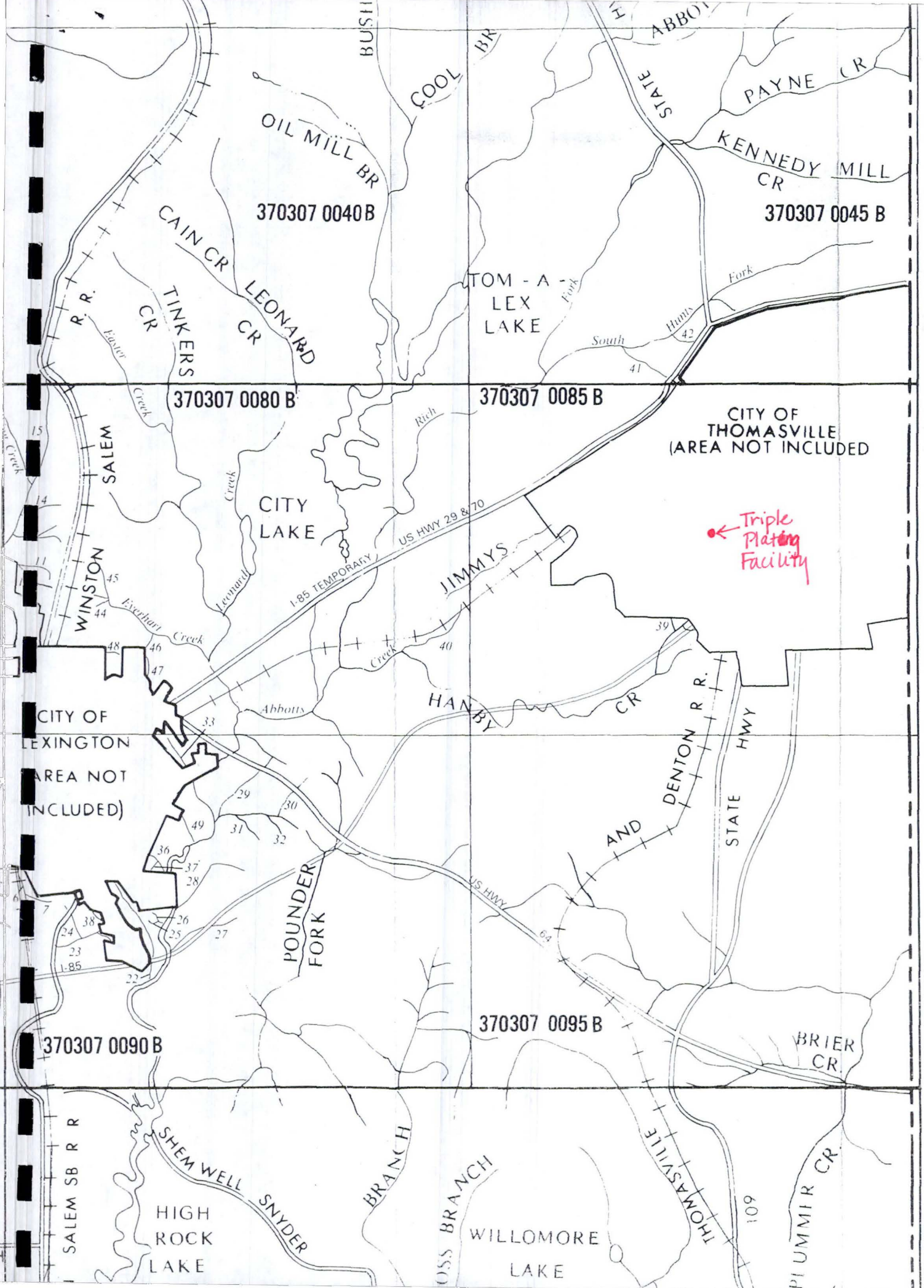
DAVIDSON COUNTY, NORTH CAROLINA
(UNINCORPORATED AREAS)

PANEL 85 OF 175

COMMUNITY-PANEL NUMBER
370307 0085 B

EFFECTIVE DATE:
MAY 1,1980

U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION


BUSH
COOL BR
ABBOT
STATE
PAYNE CR
OIL MILL BR
KENNEDY MILL CR
370307 0040 B
370307 0045 B
CAIN CR
LEONARD CR
TINKERS CR
R. R.
TOM - A - LEX LAKE
Fork
South
Hunts
Fork
42
41
Easter Creek
370307 0080 B
370307 0085 B
Rich
CITY OF THOMASVILLE (AREA NOT INCLUDED
SALEM
Creek
15
14
CITY LAKE
Creek
Leonard
US HWY 29 & 70
I-85 TEMPORARY
Triple Plating Facility
WINSTON
45
44
Everhart Creek
JIMMYS
39
48
46
47
Creek
40
Abbotts
HANBY CR
CITY OF LEXINGTON (AREA NOT INCLUDED)
33
DENTON R. R.
STATE HWY
29
30
49
31
32
AND
36
37
28
POUNDER FORK
US HWY
64
7
26
24
38
25
27
23
I-85
22
370307 0095 B
370307 0090 B
BRIER CR.
SALEM SB R R
SHEM WELL
SNYDER
BRANCH
OSS BRANCH
THOMASVILLE
109
PLUMMER CR.
HIGH ROCK LAKE
WILLOMORE LAKE

MEMORANDUM

DATE: June 10, 1997

TO: File

FROM: Stephanie L. Kozel SLK
Hydrogeologist
NC Superfund Section

RE: Stream Flow Rate Calculations of Surface Water Pathways
Triple Plating Facility
NCD #982 115 370

Below are the flow rates for the four segments of the surface water pathway. Each segment was calculated using the equation for estimating low-flow frequency characteristics of stream in North Carolina.

Mean Annual Flow = (Mean Annual Runoff)(Drainage Area)

Surface Water Body	Mean Annual Runoff $(ft^3/s)/mi^2$	Drainage Area mi^2	Flow Rate ft^3/s
North Hamby Creek	0.9	1.26	1.13
Hamby Creek	0.9	16.4	14.76
Rich Fork	0.9	78.7	70.83
Abbotts Creek	0.9	171.0	153.90

Low-Flow Characteristics of Streams in North Carolina

United States Geological Survey Water-Supply Paper 2403

Prepared in cooperation with the North Carolina Department of Environment, Health, and Natural Resources

the only explanatory variable. Also given in table 3 are regression equations 11–14 for the western Piedmont and mountains hydrologic area (HA10); these equations incorporate mean annual flow (*MAF*) as the explanatory variable. *MAF* is a compound variable obtained by multiplying drainage area (*DA*) by mean annual runoff (*MAR*) as obtained from plate 2. Equations 3–14 listed in table 3 are useful for estimating low-flow characteristics in streams in an area that covers 20,600 mi^2, or about 40 percent of the State. Standard error of estimates for these regression equations, which are for drainage basins greater than the lower drainage area limit given in table 2 but less than 400 mi^2, ranged from 31 percent for the 30Q2 equation 6 for the Sand Hills hydrologic area (HA3) to 92 percent for the 7Q10 equation 7 for the combined hydrologic areas HA5 and HA9. Regression equations developed for the remainder of the State are not presented in the report because standard error of estimates were too high (192 percent or larger) to provide reliable equations. For hydrologic areas where no equations were developed, refer to table 2 for the percentile distributions of computed low-flow characteristics.

A point of particular interest is that all of the exponents for the four equations for the western Piedmont and mountains hydrologic area (HA10) are about 1.0. This indicates that the low-flow characteristics for unregulated streams in this hydrologic area are directly related to mean annual flow by a proportionality constant. Any such relation is probably driven by precipitation and precipitation variability, of which streamflow and streamflow variability are largely reflective.

ESTIMATING LOW-FLOW FREQUENCY CHARACTERISTICS

A hierarchy of procedures is used in estimating low-flow frequency characteristics of streams. The most reliable estimates are generated from multiyear continuous records of streamflow at the site of interest. Other reliable estimates are those made from a series of five or more base-flow measurements at a site, which are then correlated with concurrent streamflow at one or more nearby long-term continuous-record stations for which low-flow characteristics are available. Procedures for these two cases are described by Riggs (1972).

For ungaged sites on gaged or measured streams, low-flow characteristics may be estimated by using a weighted average of estimates from the gaged site and regional relations given in this report. The weight of the estimate from the gaging station is 100 percent at the gage, diminishing to 0 percent at distances upstream and downstream corresponding to one-fourth and four-times the drainage area at the gage. The weight of the estimate from regional relations would be 100 percent minus the weight of the estimates from the gaged site. Outside the one-fourth and four-times drainage area limits, regional relations could be given full weight.

In hydrologic areas HA3, HA5, HA9, and HA10, regression equations 3–14 in table 3 can be used where applicable for estimation purposes, provided the drainage area at the site is greater than the indicated lower drainage area limit in table 2 and less than 400 mi^2. Where the drainage area is less than the indicated lower limit in table 2, examination of low-flow frequency characteristics at nearby gaged sites could be the basis for estimates at the ungaged site. Preferably, however, a series of base-flow measurements could be made at the ungaged site, and correlation techniques, such as previously described, could be used for estimating low-flow characteristics. The latter approach is particularly appropriate for small drainage areas because of higher variability in per-square-mile values of low-flow statistics for small drainage areas.

The appropriate equation for the hydrologic area in which the site is located can be obtained from table 3. To use the regression equations, first determine the drainage area of the site in square miles. Then, if the site is located in the western Piedmont and mountains hydrologic area (HA10), determine the mean annual runoff for the basin, in $(ft^3/s)/mi^2$, using plate 2.

For example, assume the site of interest is in the western Piedmont and mountains hydrologic area (HA10). The drainage area is 3.5 mi^2, the mean annual runoff is 1.2 $(ft^3/s)/mi^2$, and the low-flow characteristic of interest is the 7Q10 low flow. Then:

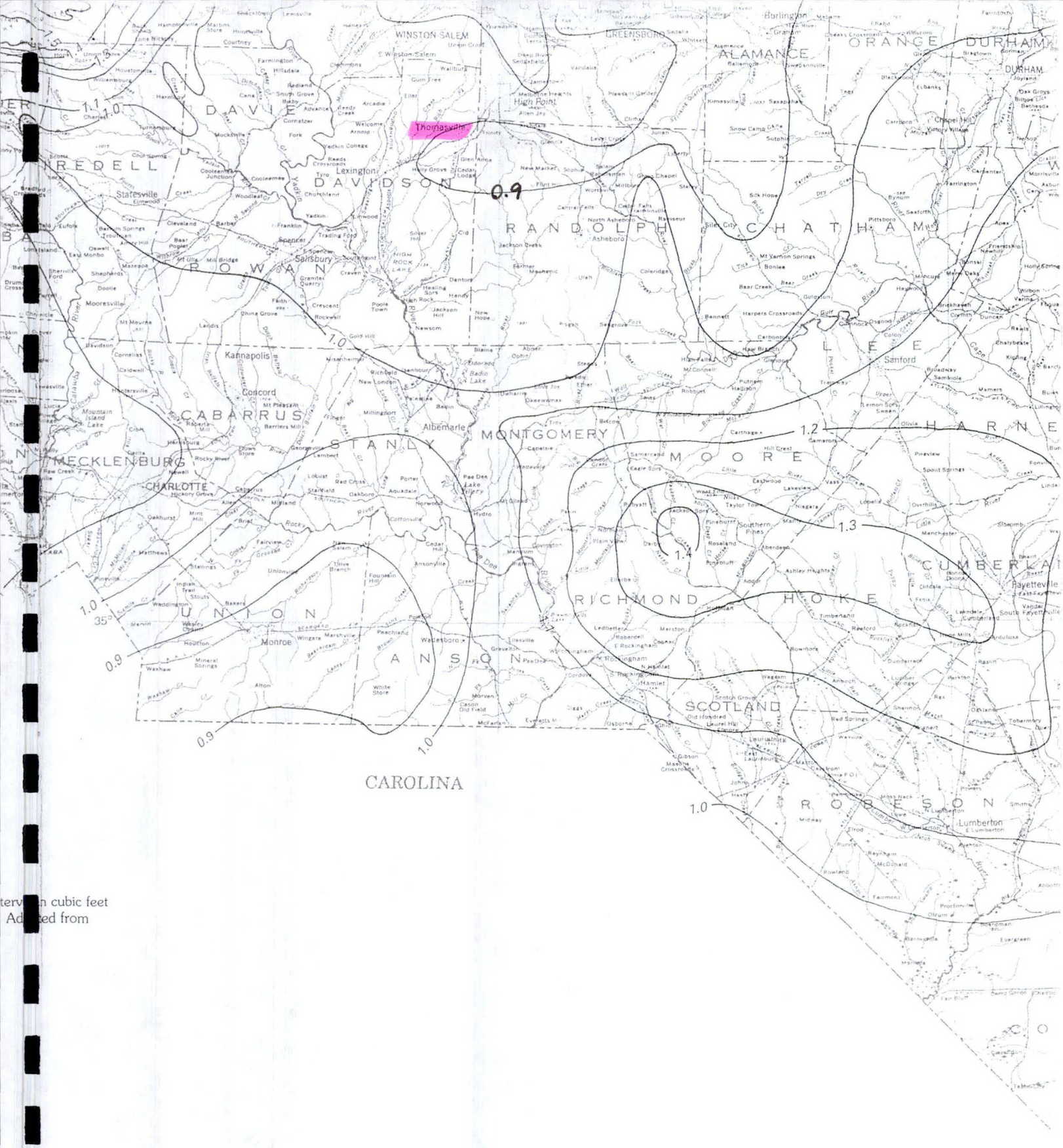
$$MAF=(MAR)(DA) \qquad (15)$$

and substituting above values:

$$4.2\ ft^3/s=(1.2(ft^3/s)/mi^2)(3.5\ mi^2).$$

From equation 11, table 3:

$$7Q10=0.155\ MAF^{1.01};$$



terv n cubic feet
Ad ted from

MEAN ANNUAL RUNOFF FOR NORTH CAROLINA

U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT 83-211

DRAINAGE AREAS OF SELECTED SITES ON STREAMS IN NORTH CAROLINA

Prepared in cooperation with the

North Carolina Department of Natural

Resources and Community Development

STATION NUMBER	STATION NAME	DRAINAGE AREA (SQ MI)	SITE TYPE	LAT	LONG	QUAD NAME	COUNTY CODE
0212137988	TOWN C AT SR 1500 NR CHINA GROVE	3.42	20	353600	803204	CHINA GROVE	159
0212137989	TOWN C AT SR 2538 NR CHINA GROVE	5.10	20	353657	803123	CHINA GROVE	159
0212137993	TOWN C AT SR 2528 NR SALISBURY	7.98	20	353843	802938	SALISBURY	159
0212138010	TOWN C TRIB AT KLUMAC RD NR SALISBURY	2.46	20	353853	802911	SALISBURY	159
0212138150	TOWN C AT NC 52 AT SALISBURY	13.0	20	353933	802739	SALISBURY	159
0212138200	TOWN C AT EAST SPENCER	15.2	02	354020	802600	SALISBURY	159
0212138300	TOWN C NR SPENCER	16.3	02	354043	802458	SALISBURY	159
0212138830	TOWN C AB CRANE C NR SPENCER	18.8	20	354046	802310	SALISBURY	159
0212138831	CRANE C BL TOWN C NR SALISBURY	44.1	20	354044	802309	SALISBURY	159
0212139845	CRANE C TRIB AT MTH NR TRADING FORD	2.62	20	353932	802208	SOUTHMONT	159
0212139860	CRANE C NR TRADING FORD	50.1	20	353949	802115	SOUTHMONT	159
0212140010	CHURCH C AT US 52 NR CRESCENT	3.98	20	353514	802525	ROCKWELL	159
0212140035	CHURCH C AT SR 1004 NR GRANITE QUARRY	8.25	20	353700	802329	ROCKWELL	159
0212140075	CRANE C TRIB AT SR 1002 NR CRAVEN	15.5	20	353809	802303	SALISBURY	159
0212140085	CHURCH C AT AB 2134 NR TRADING FORD	17.9	20	353856	802205	SOUTHMONT	159
0212140105	CRANE C TRIB AT MTH AT CRAVEN	2.51	20	353833	802042	SOUTHMONT	159
0212140675	SECOND C AT PLEASANT CHURCH RD NR ROCKWELL	3.41	20	353154	802652	ROCKWELL	159
0212140700	SECOND C AT ROCKWELL	9.17	11	353151	802507	ROCKWELL	159
0212140780	SECOND C TRIB AT SR 2335 AT ROCKWELL	5.12	20	353214	802448	ROCKWELL	159
0212140800	SECOND C AB SEO NR ROCKWELL	15.2	11	353212	802423	ROCKWELL	159
0212140900	SECOND C BL SEO NR ROCKWELL	20.5	11	353217	802334	ROCKWELL	159
0212140945	SECOND C TRIB AB SEO AT ROCKWELL	0.63	11	353321	802335	ROCKWELL	159
0212140947	SECOND C TRIB BL SEO NR ROCKWELL	1.03	11	353350	802258	ROCKWELL	159
0212140969	SECOND C TRIB AT MTH NR LIBERTY	5.01	20	353351	802157	GOLD HILL	159
0212141000	SECOND C NR LIBERTY	30.4	02	353352	802156	GOLD HILL	159
0212141010	SAND B AT MTH NR LIBERTY	1.56	20	353352	802123	GOLD HILL	159
0212141110	SECOND C AT MTH NR LIBERTY	34.1	20	353507	802106	GOLD HILL	159
0212141119	SECOND C TRIB AT MTH NR CRESCENT	2.23	20	353517	802124	GOLD HILL	159
0212141130	HIGH ROCK LAKE TRIB AT MTH NR LIBERTY	2.48	20	353540	802111	GOLD HILL	159
0212141150	REEDY C BL SR 2140 NR GOLD HILL	1.27	20	353245	802007	GOLD HILL	159
0212141255	REEDY C AT MTH NR LIBERTY	4.44	20	353512	801908	GOLD HILL	159
0212141400	ABBOTTS C AT SR 2640 NR MATHIS	1.31	20	360543	800412	KERNERSVILLE	067
0212141550	ABBOTTS C AT SR 2632 NR KERNERSVILLE	3.28	20	360441	800445	KERNERSVILLE	067
0212141600	ABBOTTS C AT SR 2631 NR KERNERSVILLE	4.92	20	360353	800509	KERNERSVILLE	067
0212141602	ABBOTTS C TRIB AT SR 2683 NR UNION CROSS	2.30	20	360328	800539	KERNERSVILLE	067
0212141610	ABBOTTS C AT SR 2624 NR UNION CROSS	9.44	20	360228	800523	KERNERSVILLE	067
0212141710	ABBOTTS C AT US 311 NR HIGH POINT	12.6	20	360118	800446	KERNERSVILLE	067
0212142255	CUDDYBUM B AT US 311 NR MATHIS	1.61	20	360118	800427	KERNERSVILLE	067
0212142735	RICH F AT SR 1892 NR HIGH POINT	1.68	20	360024	800319	KERNERSVILLE	057
0212142755	ABBOTTS C AT SR 1741 AT WALLSBURG	18.7	20	355928	800531	HIGH POINT WEST	057
0212142765	ABBOTTS C AT SR 1743 NR UNION CROSS	20.3	20	355827	800539	HIGH POINT WEST	057
0212142940	SPURGEON C NR GEORGETOWN	5.02	20	360031	800716	KERNERSVILLE	057
0212142950	SPURGEON C AT SR 1747 NR HIGH POINT	8.35	20	355853	800704	HIGH POINT WEST	057
0212142975	SPURGEON C AT SR 1755 NR THOMASVILLE	9.75	20	355803	800654	HIGH POINT WEST	057
0212143000	ABBOTTS C NR WALLBURG	33.2	02	355721	800732	MIDWAY	057
0212143250	REEDY RUN AT SR 1700 NR MIDWAY	2.11	20	355713	800820	MIDWAY	057
0212143450	ABBOTTS C AT SR 1800 NR PILOT	37.1	20	355618	800850	MIDWAY	057
0212143600	ABBOTTS C AB NEW LAKE NR THOMASVILLE	40.0	02	355442	800956	MIDWAY	057
0212144370	BRUSHY F AT NC 109 NR WALBURG	1.29	20	360050	800904	WINSTON-SALEM EAST	057
0212144375	BRUSHY F AT SR 1700 NR GUM TREE	5.71	20	355859	800955	MIDWAY	057
0212144400	BRUSHY F NR GUM TREE	7.92	02	355837	801029	MIDWAY	137
0212144500	BRUSHY F TRIB NR GUM TREE	1.24	02	355837	801033	MIDWAY	057
0212144610	L BRUSHY F TRIB AT SR 1715 NR MIDWAY	2.39	20	355752	801147	MIDWAY	057
0212144650	L BRUSHY F AT SR 1720 NR MIDWAY	4.50	20	355743	801112	MIDWAY	057
0212144700	BRUSHY F NR ELLER	15.6	02	355657	801051	MIDWAY	057
0212144850	COOL B AT SR 1802 NR MIDWAY	1.77	20	355639	801011	MIDWAY	057
0212145000	BRUSHY F NR THOMASVILLE	21.0	02	355530	801049	MIDWAY	057
0212145225	BUCK B AT SR 1816 NR MIDWAY	2.23	20	355508	801107	MIDWAY	057
0212146300	ABBOTTS C AB RICH F NR HOLLY GROVE	71.9	20	355029	801203	LEXINGTON EAST	057
0212146400	RICH F NR UNION CROSS	3.14	20	355936	800318	HIGH POINT WEST	057
0212146600	RICH F NR HIGH POINT	6.44	11	355840	800341	HIGH POINT WEST	057
0212146655	RICH F AT SR 1757 NR HIGH POINT	8.00	20	355753	800446	HIGH POINT WEST	057
0212146800	RICH F NR WALLBURG	9.91	11	355656	800608	HIGH POINT WEST	057
0212147095	PAYNE C AT SR 1757 NR HIGH POINT	3.81	20	355702	800400	HIGH POINT WEST	057
0212147105	PAYNE C AT SR 1763 NR HIGH POINT	7.92	20	355644	800518	HIGH POINT WEST	057
0212147165	KENNEDY MILL C TRIB AT MTH NR THOMASVILLE	0.64	20	355534	800315	HIGH POINT WEST	057
0212147182	KENNEDY MILL C AT SR 1776 NR THOMASVILLE	3.96	20	355603	800415	HIGH POINT WEST	057
0212147300	RICH F AT NC 109 NR THOMASVILLE	25.6	02	355615	800659	HIGH POINT WEST	057
0212147355	RICH F C NR THOMASVILLE	26.6	20	355536	800731	MIDWAY	057
0212147400	RICH F NR ERWIN HEIGHTS	31.1	20	355352	800846	MIDWAY	057
0212147555	HUNTS F AT SR 1770 NR THOMASVILLE	1.78	11	355417	800317	HIGH POINT WEST	057
0212147560	HUNTS F AT US 85 AT THOMASVILLE	3.87	20	355412	800521	HIGH POINT WEST	057
0212147565	HUNTS F AT NC 109 AT THOMASVILLE	5.96	20	355424	800553	HIGH POINT WEST	057
0212147600	HUNTS F NR THOMASVILLE	8.76	20	355405	800634	HIGH POINT WEST	057
0212147665	HUNTS F NR ERWIN HEIGHTS	11.0	20	355347	800749	MIDWAY	057
0212148100	RICH F BL HAMBY C NR HOLLY GROVE	48.9	20	355035	801135	LEXINGTON EAST	057
0212148227	HAMBY C AT NC 109 AT THOMASVILLE	3.94	20	355136	800523	FAIR GROVE	057
0212148247	HAMBY C TRIB AB N HAMBY C AT GLEN ANNA	2.35	20	355053	800647	FAIR GROVE	057
0212148280	N HAMBY C AT JULAN AVE AT THOMASVILLE	1.26	20	355300	800422	HIGH POINT WEST	057
0212148398	N HAMBY C AT MTH NR GLEN ANNA	4.09	20	355050	800651	FAIR GROVE	057
0212148850	HAMBY C NR HOLLY GROVE	16.4	20	354945	800922	LEXINGTON EAST	057
0212148875	HAMBY C TRIB NR HOLLY GROVE	2.73	20	354944	800923	LEXINGTON EAST	057
0212148955	JIMMY C AT MTH NR HOLLY GROVE	6.55	20	355029	801117	LEXINGTON EAST	057
0212149100	RICH F AT MTH NR HOLLY GROVE	78.7	20	355012	801200	LEXINGTON EAST	057
0212149215	LEONARD C AT SR 1815 NR BETHESDA	2.23	20	355423	801258	MIDWAY	057

STATION NUMBER	STATION NAME	DRAINAGE AREA (SQ MI)	SITE TYPE	LAT	LONG	QUAD NAME	COUNTY CODE
0212149222	LEONARD C AT SR 1821 NR BETHESDA	3.84	20	355333	801244	MIDWAY	057
0212149300	LEONARD C AT SR 1837 NR BETHESDA	5.16	01	355314	801230	MIDWAY	057
0212149400	LEONARD C AB CITY LK D NR LEXINGTON	6.51	02	355218	801300	LEXINGTON EAST	057
0212149405	LEONARD C AT DAM NR LEXINGTON	7.34	20	355129	801255	LEXINGTON EAST	057
0212149420	TINKERS C AT SR 1464 NR BETHESDA	1.34	20	355409	801350	MIDWAY	057
0212149430	TINKERS C AT SR 1836 AT BETHESDA	2.27	20	355317	801356	MIDWAY	057
0212149440	EASTER C AT SR 1836 AT BETHESDA	2.11	20	355308	801412	MIDWAY	057
0212149590	LEONARD C TRIB NR LEXINGTON	2.32	20	355033	801334	LEXINGTON EAST	057
0212149620	LEONARD C AT SR 2001 NR LEXINGTON	18.6	20	354953	801323	LEXINGTON EAST	057
0212149680	ABBOTTS C AT SR 2010 AT LEXINGTON	171.	20	354325	801319	LEXINGTON EAST	057
0212150000	ABBOTTS C AT LEXINGTON	176.	01	354823	801405	LEXINGTON EAST	057
0212151050	ABBOTTS C NR LEXINGTON	181.	20	354629	801426	LEXINGTON EAST	057
0212152100	ABBOTTS C NR SANDY GROVE	183.	20	354520	801410	LEXINGTON EAST	057
0212153025	POUNDER F TRIB AT MTH NR SANDY GROVE	2.98	20	354756	801158	LEXINGTON EAST	057
0212153050	POUNDER F NR SANDY GROVE	6.21	20	354722	801211	LEXINGTON EAST	057
0212153275	POUNDER F TRIB NR HEDRIC GROVE	2.68	20	354618	801239	LEXINGTON EAST	057
0212153650	POUNDER F AT MTH NR HEDRICK GROVE	14.0	20	354529	801401	LEXINGTON EAST	057
0212153675	ABBOTTS C TRIB AT MTH AT HIGHROCK LAKE NR SANDY GR	0.83	20	354508	801423	LEXINGTON EAST	057
0212170350	ABBOTTS C AT SR 2380 AT SOUTHMONT	223.	20	353833	801518	SOUTHMONT	057
0212175050	RUDDLE B NR SILVER HILL	5.39	20	354113	801346	DENTON	057
0212193950	FLAT SWP C TRIB AT MTH AT GORDONTOWN	2.21	20	354535	800707	FAIR GROVE	057
0212194000	FLAT SWP C NR LEXINGTON	6.42	11	354359	800637	DENTON	057
0212194050	ROCKY MEADOW B AT SR 2274 NR SILVER VALLEY	2.18	20	354245	800810	DENTON	057
0212195800	FLAT SWP C NR SILVER HILL	15.3	02	354112	800906	DENTON	057
0212195900	FLAT SWP C AT MTH NR SILVER HILL	19.6	20	354020	801000	DENTON	057
0212195950	FOURMILE B AT HEDRICK GROVE	2.93	20	354605	801026	LEXINGTON EAST	057
0212200000	FOURMILE B AT SOUTHMONT	14.2	01	354051	801029	DENTON	057
0212236850	PANTHER C AT SR 1004 NR LIBERTY	3.47	20	353415	801812	GOLD HILL	159
0212238200	PANTHER C NR LIBERTY	8.04	02	353530	801633	GOLD HILL	159
0212250000	YADKIN R AT HIGH ROCK	3973.	01	353546	801359	DENTON	159
0212250650	CEDAR C AT SR 2143 NR POOLETOWN	1.92	20	353426	801516	GOLD HILL	159
0212251300	W B LICK C NR SNYDER	2.88	02	354135	800606	DENTON	057
0212251350	LICK C AT NC 109 NR SNYDER	4.87	20	354046	800600	DENTON	057
0212251400	LICK C NR DENTON	12.4	11	353949	800716	DENTON	057
0212252600	LICK C TRIB BL SEO NR DENTON	1.43	11	353657	800825	DENTON	057
0212252615	LICK C TRIB AT SR 2504 NR HEALING SPRINGS	4.23	20	353716	800902	DENTON	057
0212253000	LICK C AT HEALING SPRINGS	28.0	02	353659	801031	DENTON	057
0212254100	LICK C AT MTH NR HIGH ROCK	34.3	20	353450	801230	DENTON	057
0212254300	YADKIN R AB CABIN C NR JACKSON HILL	4018.	20	353424	801230	DENTON	057
0212255355	CABIN C AT DIRT ROAD NR HANDY	8.71	20	353508	800801	DENTON	057
0212256000	CABIN C NR JACKSON HILL	13.5	03	353457	800912	DENTON	057
0212258100	CABIN C AT MTH NR JACKSON HILL	20.6	02	353355	801225	DENTON	057
0212259500	FLAT C HEADWATERS NR POOLETOWN	4.60	20	353238	801516	GOLD HILL	159
0212259800	FLAT C NR POOLETOWN	5.23	20	353228	801437	DENTON	159
0212260100	FLAT C AT MTH NR NEWSOM	9.48	20	353250	801220	DENTON	159
0212260700	YADKIN R AB RILES C AT NEWSOM	4051.	20	353142	801148	DENTON	057
0212260845	RILES C HEADWATERS NR GOLD HILL	3.39	20	353125	801745	GOLD HILL	159
0212260886	RILES C AT SR 2356 NR GOLD HILL	6.12	20	353046	801638	GOLD HILL	159
0212263155	CURL TAIL C AT MISENHEIMER	1.55	20	352908	801718	MOUNT PLEASANT	167
0212263161	CURL TAIL C BL SEO AT MESENHEIMER	1.74	20	352852	801637	MOUNT PLEASANT	167
0212263166	CURL TAIL C AT SR 1134 AT RICHFIELD	3.25	11	352832	801516	MOUNT PLEASANT	167
0212263290	CURL TAIL C AT MTH NR NEW LONDON	9.91	20	354913	801354	ALBEMARLE	167
0212263300	RILES C NR GOLD HILL	26.3	02	353018	801303	DENTON	057
0212264300	RILES C AT MTH AT NEWSOM	30.2	20	353139	801150	DENTON	159
0212267100	ELLIS C NR NEWSOM	3.23	02	353208	800944	DENTON	057
0212267800	ELLIS C AT MTH AT NEWSOM	7.75	20	353140	801120	DENTON	057
0212268800	YADKIN R NR GOLD HILL	4091.	20	353022	801053	DENTON	057
0212269900	TUCKERTOWN RES ON YADKIN R NR ELDORADO	4097.	20	352905	801030	ALBEMARLE	167
0212269915	YADKIN R TRIB AT MTH NR ISENHOUR	3.00	20	352815	800957	ALBEMARLE	167
0212269945	GARR C AT MTH NR TUCKERTOWN	2.70	20	352932	800835	ALBEMARLE	123
0212272000	BEAVERDAM C TRIB NR DENTON	2.90	11	353157	800504	DENTON	057
0212272400	BEAVERDAM C AT MTH NR JACKSON HILL	8.93	02	353050	800605	DENTON	057
0212272450	ALLS F AT SR 2550 NR JACKSON HILL	2.50	20	353039	800636	DENTON	057
0212276600	GLADY F AT BLAINE	2.88	02	352947	800347	ALBEMARLE	123
0212276650	GLADY F AT MTH NR ELDORADO	4.86	20	352900	800358	ALBEMARLE	123
0212284400	YADKIN R AT BADIN DAM	4154.	20	352510	800534	ALBEMARLE	167
0212292200	YADKIN R AT FALLS DAM	4159.	20	352341	800432	ALBEMARLE	167
0212292400	YADKIN R AB UWHARRIE R NR BADIN	4164.	20	352250	800335	ALBEMARLE	167
0212299505	UWHARRIE R HEADWATERS AT SR 1610 NR HIGH POINT	1.70	20	355353	800054	HIGH POINT WEST	151
0212299550	UWHARRIE R AT NC 62 NR THOMASVILLE	5.80	20	355256	800008	HIGH POINT WEST	151
0212300000	UWHARRIE R NR TRINITY	10.9	01	355205	795931	GLENOLA	151
0212301000	UWHARRIE R TRIB AT SR 1564 NR TRINITY	2.71	20	355044	795906	GLENOLA	151
0212301050	UWHARRIE R TRIB AT SR 1566 NR HILLSVILLE	3.82	20	355107	795700	GLENOLA	151
0212301075	UWHARRIE R TRIB AT MTH NR HILLSVILLE	4.94	20	355017	795752	GLENOLA	151
0212310900	UWHARRIE R TRIB AB MTH AT SR 1545 NR HILLSVILLE	1.61	20	354925	795808	GLENOLA	151
0212311159	UWHARRIE R AT SR 1547 NR HILLSVILLE	26.0	20	354918	795819	GLENOLA	151
0212311300	UWHARRIE R NR GLENOLA	32.1	02	354825	795950	GLENOLA	151
0212312000	UWHARRIE R NR ASHBORO	36.6	02	354720	795920	GLENOLA	151
0212313005	UWHARRIE R TRIB NR FLINT HILL	1.74	20	354632	795911	GLENOLA	151
0212314300	UWHARRIE R NR FLINT HILL	41.3	02	354555	795935	GLENOLA	151
0212316600	L UWHARRIE R NR TRINITY	2.52	20	355045	800203	FAIR GROVE	151
0212317190	L UWHARRIE R AT SR 1404 NR FLINT HILL	5.46	20	354848	800248	FAIR GROVE	151
0212317200	L UWHARRIE R NR LIGHT	8.33	02	354810	800310	FAIR GROVE	057
0212318750	PLUMMER C AT MTH NR GORDONTOWN	5.08	20	354543	800401	FAIR GROVE	057
0212318900	BRIER C NR HOLLY GROVE	8.86	02	354620	800348	FAIR GROVE	057

MEMORANDUM

DATE: July 21, 1997

TO: File

FROM: Stephanie L. Kozel
Hydrogeologist
NC Superfund Section

RE: Wetland acreage and frontage along the 15-mile surface water pathway
Triple Plating Facility
NCD #982 115 370

The second surface water pathway begins at North Hamby Creek (PPE #2), 1,000 feet south of the site. The pathway continues along North Hamby Creek for 3.5 miles until the creek flows into Hamby Creek. Hamby Creek flows for 7 miles into Rich Fork Creek. Rich Fork Creek empties into Abbots Creek 0.5 miles downstream of its confluence and the surface water pathway ends 4 miles downstream along Abbotts Creek. As noted from the wetland inventory map of Lexington East, NC and from the use of a planimeter, the 10.5 miles along North Hamby Creek and Hamby Creek, 36.9 acres of wetlands are observed. On the remaining 4.5 miles of the 15-mile surface water pathway, along Rich Fork Creek and Abbots Creek, 49.7 acres of wetlands are observed. A total of 86.6 acres of wetlands and $2\,^1/_4$ miles of frontage are located along N. Hamby Creek, Hamby Creek, Rich Fork Creek, and Abbotts Creek.

MEMORANDUM

DATE: July 14, 1997

TO: File

FROM: Stephanie L. Kozel
Hydrogeologist SLK
NC Superfund Section

RE: Fisheries along the 15-mile surface water pathway
Triple Plating Facility
NCD #982 115 370

On July 14, 1997, I talked with Mr. Wayne Chapman, Fisheries Biologist, of the Wildlife Resource Commission, Habitat Conservation District 6 (704-982-9255) about the usage of the surface water pathways for the Triple Plating site. He stated the North Hamby Creek and Hamby Creek are fisheries but he has little to no data available. Rich Fork Creek is a large fishery and is the white bass migratory spawning run. The white bass migrate upstream from High Rock Lake to spawn. Abbott's Creek is also a white bass migratory spawning run upstream of High Rock Lake. Abbott's Creek is a larger creek with several different species of fish for harvest, such as catfish, large mouth bass, and sunfish.

STATE OF
NORTH CAROLINA
DEPARTMENT OF
ENVIRONMENT, HEALTH,
AND NATURAL RESOURCES

Classifications and Water Quality Standards Assigned to The Waters of the Yadkin-Pee Dee River Basin

Division of Environmental Management
Raleigh, North Carolina

Reprint from North Carolina Administrative Code: 15A NCAC 2B .0309
Current through: February 1, 1993

SECTION .0300 - ASSIGNMENT OF STREAM CLASSIFICATIONS

.0301 CLASSIFICATIONS: GENERAL

(a) Schedule of Classifications. The classifications assigned to the waters of the State of North Carolina are set forth in the schedules of classifications and water quality standards assigned to the waters of the river basins of North Carolina, 15A NCAC 2B .0302 to .0317. These classifications are based upon the existing or contemplated best usage of the various streams and segments of streams in the basin, as determined through studies and evaluations and the holding of public hearings for consideration of the classifications proposed.

(b) Stream Names. The names of the streams listed in the schedules of assigned classifications were taken as far as possible from United States Geological Survey topographic maps. Where topographic maps were unavailable, U.S. Corps of Engineers maps, U.S. Department of Agriculture soil maps, and North Carolina highway maps were used for the selection of stream names.

(c) Classifications. The classifications assigned to the waters of North Carolina are denoted by the letters WS-I, WS-II, WS-III, WS-IV, WS-V, B, C, SA, SB, and SC in the column headed "class." A brief explanation of the "best usage" for which the waters in each class must be protected is given as follows:

Fresh Waters

Class WS-I:	waters protected as water supplies which are in natural and undeveloped watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;
Class WS-II:	waters protected as water supplies which are generally in predominantly undeveloped watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;
Class WS-III:	waters protected as water supplies which are generally in low to moderately developed watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;
Class WS-IV:	waters protected as water supplies which are generally in moderately to highly developed watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;
Class WS-V:	waters protected as water supplies which are generally upstream and draining to Class WS-IV waters; no categorical restrictions on watershed development or treated wastewater discharges are required, however, the Commission or its designee may apply appropriate management requirements as deemed necessary for the protection of downstream receiving waters (15A NCAC 2B .0203); suitable for all Class C uses;
Class B:	primary recreation and any other usage specified by the "C" classification;
Class C:	aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture.

Tidal Salt Waters

Class SA:	shellfishing for market purposes and any other usage specified by the "SB" and "SC" classification;
Class SB:	primary recreation and any other usage specified by the "SC" classification;
Class SC:	aquatic life propagation and survival, fishing, wildlife, and secondary recreation.

Supplemental Classifications

Trout Waters:	Suitable for natural trout propagation and maintenance of stocked trout;
Swamp Waters:	Waters which have low velocities and other natural characteristics which are different from adjacent streams;
NSW:	Nutrient Sensitive Waters which require limitations on nutrient inputs;
HQW:	High Quality Waters which are waters that are rated as excellent based on biological and physical/chemical characteristics through division monitoring or special studies, native and special native trout waters (and their tributaries) designated by the Wildlife Resources Commission, primary nursery areas (PNA) designated by the Marine Fisheries Commission and other functional nursery areas designated by the Wildlife Resources Commission, critical habitat areas designated by the Wildlife Resources Commission or the Department of Agriculture, all water supply watersheds which are either classified as WS-I or WS-II or those for which a formal petition for reclassification as WS-I or WS-II has been received from the appropriate local government and accepted by the Division of Environmental Management and all Class SA waters.
ORW:	Outstanding Resource Waters which are unique and special waters of exceptional state or national recreational or ecological significance which require special protection to maintain existing uses.

(d) Water Quality Standards. The water quality standards applicable to each classification assigned are those established in 15A NCAC 2B .0200, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, as adopted by the North Carolina Environmental Management Commission.

(e) Index Number.

(1) Reading the Index Number. The index number appearing in the column so designated is an identification number assigned to each stream or segment of a stream, indicating the specific tributary progression between the main stem stream and the tributary stream.

(2) Cross-Referencing the Index Number. The inclusion of the index number in the schedule is to provide an adequate cross reference between the classification schedules and an alphabetic list of streams.

(f) Classification Date. The classification date indicates the date on which enforcement of the provisions of Section 143-215.1 of the General Statutes of North Carolina became effective with reference to the classification assigned to the various streams in North Carolina.

(g) Reference. Copies of the schedules of classifications adopted and assigned to the waters of the various river basins may be obtained at no charge by writing to:

Director
Division of Environmental Management
Department of Environment, Health, and Natural Resources
Post Office Box 29535
Raleigh, North Carolina 27626-0535

(h) Places where the schedules may be inspected:

Division of State Library
Archives -- State Library Building
109 E. Jones Street
Raleigh, North Carolina.

(i) Unnamed Streams.

(1) Any stream which is not named in the schedule of stream classifications carries the same classification as that assigned to the stream segment to which it is tributary except:

(A) unnamed streams specifically described in the schedule of classifications; or

(B) unnamed freshwaters tributary to tidal saltwaters will be classified "C"; or

(C) after November 1, 1986, any newly created areas of tidal saltwater which are connected to Class SA waters by approved dredging projects will be classified "SC" unless case-by-case reclassification proceedings are conducted.

(2) The following river basins have different policies for unnamed streams entering other states or for specific areas of the basin:

Hiwassee River Basin (Rule .0302); Little Tennessee River Basin and Savannah River Drainage Area (Rule .0303); French Broad River Basin (Rule .0304); Watauga River Basin (Rule .0305); Broad River Basin (Rule .0306); New River Basin (Rule .0307); Catawba River Basin (Rule .0308); Yadkin-Pee Dee River Basin (Rule .0309); Lumber River Basin (Rule .0310); Roanoke River Basin (Rule .0313); Tar-Pamlico River Basin (Rule .0316); Pasquotank River Basin (Rule .0317).

History Note: Statutory Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);
Eff. February 1, 1976;
Amended Eff. August 3, 1992; August 1, 1990; October 1, 1989; November 1, 1986.

.0309 YADKIN-PEE DEE RIVER BASIN

(a) Places where the schedule may be inspected:

(1) Clerk of Court:
Alexander County
Anson County
Cabarrus County
Caldwell County
Davidson County
Davie County
Forsyth County
Guilford County
Iredell County
Mecklenburg County
Montgomery County
Randolph County
Richmond County
Rowan County
Stanly County
Stokes County
Surry County
Union County
Watauga County
Wilkes County
Yadkin County

(2) North Carolina Department of Environment, Health, and Natural Resources:

(A) Mooresville Regional Office
919 North Main Street
Mooresville, North Carolina

(B) Winston-Salem Regional Office
8025 North Point Boulevard, Suite 100
Winston-Salem, North Carolina

(C) Fayetteville Regional Office
Wachovia Building
Suite 714
Fayetteville, North Carolina

(D) Asheville Regional Office
Interchange Building
59 Woodfin Place
Asheville, North Carolina

(b) Unnamed Streams. Such streams entering Virginia are classified "C," and such streams entering South Carolina are classified "C".

.0309 YADKIN-PEE DEE RIVER BASIN

Name of Stream	Description	Class	Classification Date	Classification Index No.
	which is classified WS-V&B			
Crane Creek (Happys Lake)	From source to Dam at Happys Lake	B	7/1/73	12-115-(1)
Crane Creek	From Dam at Happys Lake to High Rock Lake, Yadkin River	C	9/1/74	12-115-(2)
Town Creek	From source to Crane Creek	C	9/1/74	12-115-3
Church Creek	From source to High Rock Lake, Yadkin River	C	8/3/92	12-115.5
Persimmon Branch	From source to High Rock Lake, Yadkin River	B	7/1/73	12-116
Second Creek	From source to High Rock lake, Yadkin River	C	9/1/74	12-117
Sand Branch	From source to Second Creek	C	9/1/74	12-117-1
Reedy Creek	From source to a point 0.5 mile upstream of mouth	C	9/1/74	12-118-(1)
Reedy Creek	From a point 0.5 mile upstream of mouth to High Rock Lake, Yadkin River	WS-IV	8/3/92	12-118-(2)
Abbotts Creek Arm of High Rock Lake	From source at I-85 to Davidson County SR 2294	WS-V&B	8/3/92	12-118.5
Abbotts Creek	From source to a point 0.5 mile upstream of Davidson County SR 1810	WS-III	8/3/92	12-119-(1)
Cuddybum Creek	From source to Abbotts Creek	WS-III	8/3/92	12-119-2
Sprugeon Creek	From source to Abbotts Creek	WS-III	8/3/92	12-119-3
Mary Reich Creek	From source to Spurgeon Creek	WS-III	8/3/92	12-119-3-1
Reedy Run	From source to Abbotts Creek	WS-III	8/3/92	12-119-4
Abbotts Creek (including Lexington-Thomasville Water Supply Reservoir at normal reservoir elevation, Tom-A-Lex Lake)	From a point 0.5 mile upstream of Davidson County SR 1810 to the upstream side of culvert at U.S. Hwys. 29 & 70	WS-III CA	8/3/92	12-119-(4.5)
Brushy Fork	From source to Buck Branch	WS-III	8/3/92	12-119-5-(1)
Long Branch	From source to Brushy Fork	WS-III	8/3/92	12-119-5-2
Little Brushy Fork	From source to Brushy Fork	WS-III	8/3/92	12-119-5-3
Cool Branch	From source to Brushy Fork	WS-III	8/3/92	12-119-5-4
Oil Mill Branch	From source to Brushy Fork	WS-III	8/3/92	12-119-5-5
Buck Branch	From source to Brushy Fork	WS-III	8/3/92	12-119-5-6
Brushy Fork	From Buck Branch to Tom-A-Lex Lake, Abbotts Creek	WS-III CA	8/3/92	12-119-5-(7)
Abbotts Creek	From upstream side of culvert at U.S. Hwys. 29 & 70 to Abbotts Creek Arm of High Rock Lake, Yadkin River (At I-85 bridge)	C	9/1/74	12-119-(6)
Rich Fork	From source to Abbotts Creek	C	9/1/74	12-119-7
Payne Creek	From source to Rich Fork	C	9/1/74	12-119-7-1
Kennedy Mill Creek	From source to Rich Fork	C	9/1/74	12-119-7-2
Hunts Fork	From source to Rich Fork	C	9/1/74	12-119-7-3
Hanks Branch	From source to Hunts Fork	C	9/1/74	12-119-7-3-1
Hamby Creek	From source to Rich Fork	C	9/1/74	12-119-7-4

.0309 YADKIN-PEE DEE RIVER BASIN

Name of Stream	Description	Class	Classification Date	Classification Index No.
North Hamby Creek	From source to Hamby Creek	C	9/1/74	12-119-7-4-1
Jimmys Creek	From source to Hamby Creek	C	9/1/74	12-119-7-4-2
Leonard Creek	From source to a point 0.6 mile downstream of Davidson County SR 1838	WS-III	8/3/92	12-119-8-(1)
Cain Creek	From source to Leonard Creek	WS-III	8/3/92	12-119-8-2
Leonard Creek (City Lake)	From a point 0.6 mile downstream of Davidson County SR 1838 to dam at City Lake (Lexington water supply intake)	WS-III CA	8/3/92	12-119-8-(2.5)
Leonard Creek	From City Lake at Lexington to Abbotts Creek	C	9/1/74	12-119-8-(3)
Tinkers Creek	From source to Leonard Creek	C	9/1/74	12-119-8-4
Easter Creek	From source to Tinkers Creek	C	9/1/74	12-119-8-4-1
Pounder Fork	From source to Abbotts Creek Arm of High Rock Lake, Yadkin River	WS-V&B	8/3/92	12-120
Buddle Branch (Battle)	From source to High Rock Lake, Yadkin River	C	9/1/74	12-121
Panther Creek	From source to a point 1.0 mile upstream of Rowan County SR 1004	C	9/1/74	12-122-(1)
Panther Creek	From a point 1.0 mile upstream of Rowan County SR 1004 to High Rock Lake, Yadkin River	WS-IV	8/3/92	12-122-(2)
Flat Swamp Creek	From source to High Rock Lake, Yadkin River	C	7/1/73	12-123
Rocky Meadow Branch	From source to Flat Swamp Creek	C	7/1/73	12-123-1
Dry Branch	From source to Flat Swamp Creek	C	7/1/73	12-123-2
Fourmile Branch	From source to High Rock Lake, Yadkin River	C	7/1/73	12-124
Boss Branch	From source to Fourmile Branch	C	7/1/73	12-124-1
YADKIN RIVER (including lower portion of High Rock Lake, Tuckertown Lake, Badin Lake)	From a point 0.6 mile upstream of dam of High Rock Lake to Badin Dam	WS-IV&B CA	8/3/92	12-(124.5)
Cedar Creek	From source to a point 0.8 mile downstream of Rowan County SR 1005	WS-IV	8/3/92	12-125-(1)
Cedar Creek	From a point 0.8 mile downstream of Rowan County SR 1005 to Tuckertown Lake, Yadkin River	WS-IV CA	8/3/92	12-125-(2)
Lick Creek	From source to East Branch Lick Creek Yadkin River	C	9/7/74	12-126-(0.5)
West Branch Lick Creek	From source to Lick Creek	C	9/1/74	12-126-1
East Branch Lick Creek	From source to Lick Creek	C	8/3/92	12-126-2
Lick Creek	From East Branch Lick Creek to a point 1.0 mile upstream of Davidson County SR 2501	WS-IV	8/3/92	12-126-(3)
Lick Creek	From a point 1.0 mile upstream of Davidson County SR 2501 to Tuckertown	WS-IV CA	8/3/92	12-126-(4)

MEMORANDUM

DATE: April 28, 1997

TO: File

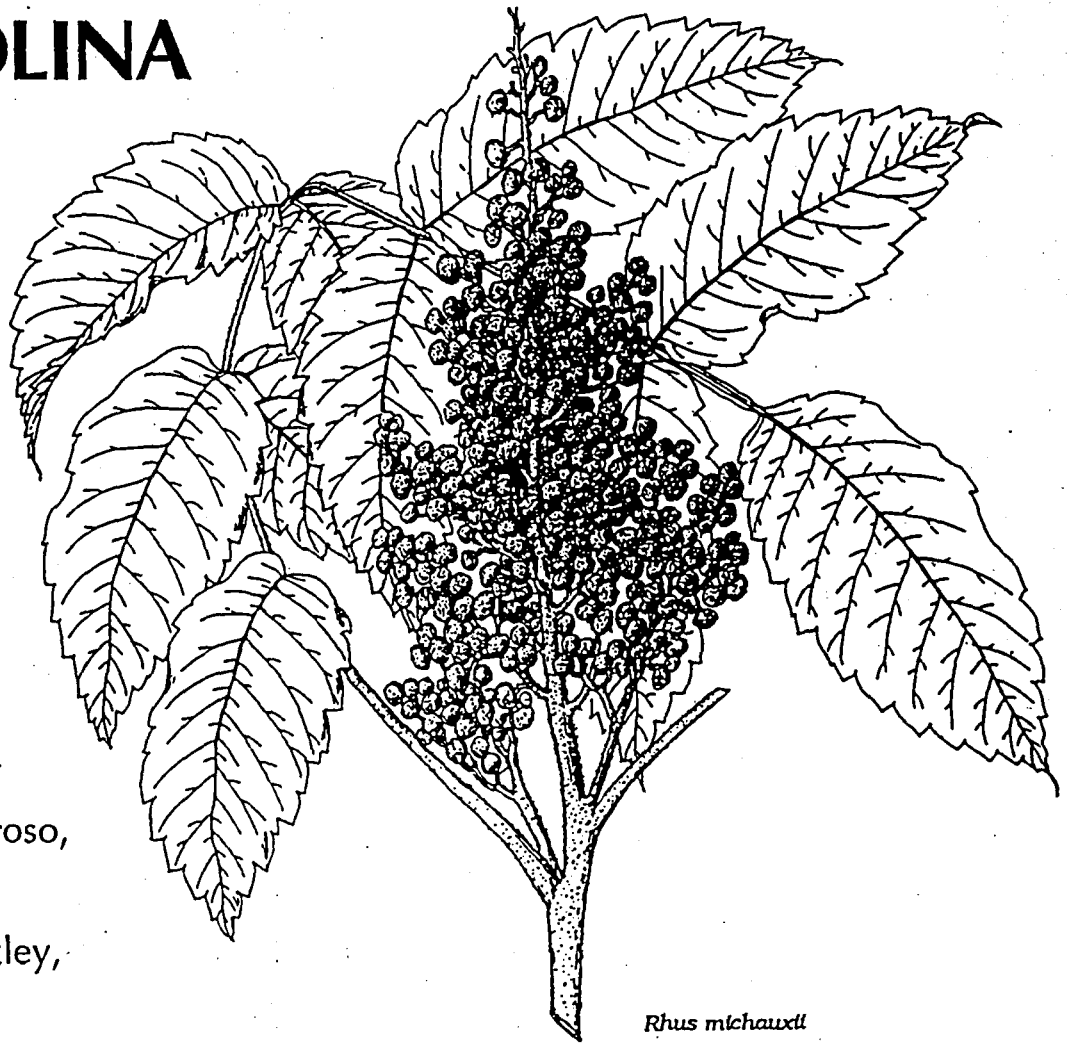
FROM: Stephanie L. Kozel SLK.
Hydrogeologist
NC Superfund Section

RE: Sensitive Environments within the 4-Mile Target Area and along the 15-Mile Surface Water Pathway
Triple Plating Facility
NCD # 982 115 370

I reviewed the 7.5 minute quadrangle maps of High Point West, Fair Grove, and Lexington East at the North Carolina Heritage Program of the North Carolina Parks and Recreation Department in Raleigh, North Carolina. One significantly rare plants was located along the fifteen mile surface water pathway of the site and no significantly rare plants nor animals were located within the four-mile target radius. The significantly rare plant is vascular and named *Matelea decipiens,* more commonly known as the Glade Milkvine. This plant is not threatened nor endangered.

220

NATURAL HERITAGE PROGRAM LIST OF THE RARE PLANT SPECIES OF NORTH CAROLINA



Rhus michauxii

Compiled by
Jame L. Amoroso,
Botanist
and
Alan S. Weakley,
Botanist

North Carolina Natural Heritage Program
Division of Parks and Recreation
N.C. Department of Environment, Health and Natural Resources 1995

Scientific Name Province: Habitat (Counties of Occurrence)	Common Name	Status NC	Status US	Rank NC	Rank Global
Marshallia trinervia M: habitat not known (Macon)	Broadleaf Barbara's Buttons	C	-	SH	G3
Matelea decipiens PC: thin woodlands over mafic or calcareous rocks (Burke*, Davidson, Durham*, Franklin*, Granville*, Hertford, Jones, Orange, Polk, Rutherford, Stanly*, Wake*)	Glade Milkvine	SR	-	S2	G5
Meehania cordata M: cove forests, boulderfields (Alleghany, Ashe*, Avery, Haywood*, Madison, Watauga*, Yancey)	Meehania	SR	-	S2	G5
Melanthium woodii (not in RAB) (= *Veratrum woodii*) M: habitat not known (Polk)	Ozark Bunchflower	C	3C	SH	G5
Melica nitens M: open calcareous woods (Madison*)	Three-flowered Melic	SR	-	S1	G5
Menyanthes trifoliata (not in RAB) M: bogs (Watauga*)	Buckbean	T	-	S1	G5
Milium effusum M: high elevation forests or openings (Swain)	Millet-grass	C	-	SH	G5
Minuartia godfreyi (= *Arenaria godfreyi*) C: tidal freshwater marshes (Craven*, Jones)	Godfrey's Sandwort	E	C2	S1	G1
Minuartia groenlandica (= *Arenaria glabra* var. *groenl.*) MP: high elevation and low elevation rocky summits (Alleghany*, Ashe*, Avery*, Burke*, Mitchell*, Stokes, Surry)	Greenland Sandwort	C	-	S2	G5
Minuartia uniflora (= *Arenaria uniflora*, incl. *M. alab.*) P: granite flatrocks (Anson*, Rowan, Rutherford*)	Single-flowered Sandwort	E	3C	S1	G3G4
Monotropsis odorata (including var. *lehmaniae*) PM: dry forests and bluffs (Alamance, Alleghany, Buncombe, Burke*, Caldwell, Catawba*, Chatham?, Cleveland*, Durham*, Henderson, Jackson*, Macon, McDowell*, Orange*, Person, Polk, Rutherford*, Stokes*, Swain, Transylvania*, Wake)	Sweet Pinesap	C	C2	S2	G3
Muhlenbergia glabriflora (not in RAB) P: clay soils (Durham)	Clay-pan Muhly	C	-	SH	G4?
Muhlenbergia glomerata M: olivine barrens, fens, mafic cliffs (Ashe*, Clay*)	Bristly Muhly	C	-	S1	G5
Muhlenbergia sobolifera M: dripping cliffs and rocky slopes (McDowell, Mitchell, Transylvania)	Rock Muhly	C	-	SH	G5
Muhlenbergia torreyana (not in RAB) CS: cypress savannas (Brunswick*, Cumberland*, Hoke*, Onslow*, Richmond*, Robeson*)	Pinebarren Smokegrass	E	3C	S1	G3
Myrica gale (= *Gale palustris*) M: bogs (Henderson*)	Sweet Gale	E	-	S1	G5
Myriophyllum laxum CS: limesink ponds, waters of natural lakes (Brunswick*, Carteret*, Craven*, Cumberland*, Hoke*, Onslow*)	Loose Watermilfoil	T	C2	S1	G3
Myriophyllum tenellum (not in RAB) C: waters of natural lakes (Bladen*, Washington*)	Leafless Watermilfoil	C	-	S1	G5
Narthecium americanum M: bogs (Henderson)	Bog Asphodel	E	C1	SX	G2
Nestronia umbellula PSC: upland forests (Alexander, Burke*, Cabarrus*, Chatham, Cumberland*, Durham*, Forsyth, Franklin, Gaston*, Granville*, Guilford*, Harnett, Hoke*, Iredell*, Lee*, Lincoln, Mecklenburg*, Montgomery*, Moore*, Orange*, Polk, Richmond*, Rowan, Rutherford, Stanly*, Vance*, Wake*)	Nestronia	SR	3C	S3	G3G4
Oenothera perennis MPC: bogs (Ashe*, Avery, Burke*, Clay*, Hertford, Iredell, Macon*, Transylvania, Tyrrell)	Perennial Sundrops	C	-	S1	G5
Oldenlandia boscii (not in NC in RAB) C: clay-based Carolina bays (Brunswick*, Columbus*, Scotland*)	Bosc's Bluet	SR	-	S1	G5
Onosmodium virginianum (see Watch List)					
Orbexilum lupinellum (see Watch List)					
Orbexilum macrophyllum (= *Psoralea macrophylla*) M: low mountain forests or outcrops? (habitat not known) (Polk)	Bigleaf Scurfpea	E	C2*	SH	GH

DAVIDSON COUNTY, NORTH CAROLINA NO. 3

5 000 4 000 3 000 2 000 1 000 0 5 000 10 000 Feet

1 .5 0 1 2 3 Kilometers

Scale - 1:24 000

N

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SOIL LEGEND

The first letter, always a capital, is the initial letter of the soil name. The second letter is a small letter. The third letter, if used, is always a capital and shows the slope. Symbols without slope letters are those of nearly level soils or miscellaneous areas.

SYMBOL	NAME
AaA	Altavista fine sandy loam, 0 to 2 percent slopes, occasionally flooded
AaB	Altavista fine sandy loam, 2 to 6 percent slopes
ApB	Appling sandy loam, 2 to 8 percent slopes
Ar	Armenia silt loam, occasionally flooded
BaB	Badin channery silt loam, 2 to 8 percent slopes
BaD	Badin channery silt loam, 8 to 15 percent slopes
BaE	Badin channery silt loam, 15 to 30 percent slopes
CcB	Cecil sandy loam, 2 to 8 percent slopes
CcD	Cecil sandy loam, 8 to 15 percent slopes
CeB2	Cecil clay loam, 2 to 8 percent slopes, eroded
CeD2	Cecil clay loam, 8 to 15 percent slopes, eroded
CfB	Cecil-Urban land complex, 2 to 8 percent slopes
Ch	Chewacla loam, frequently flooded
CmB	Cid-Misenheimer complex, 0 to 4 percent slopes
Co	Congaree loam, occasionally flooded
DaB	Davidson loam, 2 to 8 percent slopes
DaD	Davidson loam, 8 to 15 percent slopes
DaE	Davidson loam, 15 to 25 percent slopes
EnB	Enon fine sandy loam, 2 to 8 percent slopes
EnD	Enon fine sandy loam, 8 to 15 percent slopes
ErB	Enon gravelly loam, 2 to 8 percent slopes
ErD	Enon gravelly loam, 8 to 15 percent slopes
EsD	Enon very stony loam, 4 to 15 percent slopes
EsE	Enon very stony loam, 15 to 25 percent slopes
EuB	Enon-Urban land complex, 2 to 8 percent slopes
GeB	Georgeville silt loam, 2 to 8 percent slopes
GeD	Georgeville silt loam, 8 to 15 percent slopes
GnD	Goldston very channery silt loam, 4 to 15 percent slopes
GnE	Goldston very channery silt loam, 15 to 45 percent slopes
HeB	Herndon silt loam, 2 to 8 percent slopes
HeD	Herndon silt loam, 8 to 15 percent slopes
IrB	Iredell loam, 1 to 6 percent slopes
KyB	Kirksey silt loam, 2 to 6 percent slopes
MeB	Mecklenburg loam, 2 to 8 percent slopes
MeD	Mecklenburg loam, 8 to 15 percent slopes
MeB2	Mecklenburg clay loam, 2 to 8 percent slopes, eroded
MeD2	Mecklenburg clay loam, 8 to 15 percent slopes, eroded
Ok	Oakboro silt loam, frequently flooded
PaB	Pacolet sandy loam, 2 to 8 percent slopes
PaD	Pacolet sandy loam, 8 to 15 percent slopes
PaE	Pacolet sandy loam, 15 to 25 percent slopes
PaF	Pacolet sandy loam, 25 to 45 percent slopes
Pt	Pits, quarries
PnB	Poindexter and Zion sandy loams, 2 to 8 percent slopes
PnD	Poindexter and Zion sandy loams, 8 to 15 percent slopes
PnE	Poindexter and Zion sandy loams, 15 to 25 percent slopes
PnF	Poindexter and Zion sandy loams, 25 to 45 percent slopes
PuD	Poindexter-Zion-Urban land complex, 2 to 15 percent slopes
SfB	Sedgefield sandy loam, 2 to 8 percent slopes
Ud	Udorthents, loamy
Ur	Urban land
UwD	Uwharrie stony silt loam, 4 to 15 percent slopes, very bouldery
UwF	Uwharrie stony silt loam, 15 to 45 percent slopes, very bouldery
VaB	Vance sandy loam, 2 to 8 percent slopes
VaD	Vance sandy loam, 8 to 15 percent slopes
Wa	Wahee loam, occasionally flooded
WeB	Wedowee sandy loam, 2 to 8 percent slopes
WeD	Wedowee sandy loam, 8 to 15 percent slopes
WkB	Wickham fine sandy loam, 2 to 8 percent slopes

BOUNDARIES

National, state, or province

County or parish

Minor civil division

Reservation (national fores forest or park, and large

Land grant

Limit of soil survey (label)

Field sheet matchline and

AD HOC BOUNDARY (label)

Small airport, airfield, park, cemetery, or flood pool

STATE COORDINATE TICK
1 890 000 FEET

LAND DIVISION CORNER (sections and land grants)

ROADS

Divided (median shown if

Other roads

Trail

ROAD EMBLEM & DESIGNA

Interstate	I-85
Federal	U. S.
State	N. C. 1
Other	S. R. 1

RAILROAD

POWER TRANSMISSION LI (normally not shown)

PIPE LINE (normally not sho

FENCE (normally not shown)

LEVEES

Without road

With road

With railroad

DAMS

Large (to scale)

Medium or Small

PITS

Gravel pit

Mine or quarry

The capability subclass is IVe, and the woodland ordination symbol is 7A.

EsD—Enon very stony loam, 4 to 15 percent slopes. This well drained soil is on ridges and side slopes on the uplands. Most of this map unit is in the southern part of the county. Individual areas are broad and irregular in shape and range from 5 to several hundred acres in size.

Typically, the surface layer is dark grayish brown very stony loam about 2 inches thick. The subsurface layer is yellowish brown very stony loam about 4 inches thick. The subsoil is about 17 inches thick. It is yellowish brown sandy clay loam in the upper part, strong brown clay in the next part, and yellowish brown clay in the lower part. The underlying material to a depth of 60 inches or more is multicolored saprolite that has a texture of loam. Many stones and cobbles are on the surface. Scattered boulders are about 75 feet apart.

Permeability is slow. The shrink-swell potential is high. The depth to hard bedrock is more than 5 feet. Many rocks are on and in the surface layer. Reaction ranges from moderately acid to mildly alkaline.

Included with this soil in mapping are small areas of Uwharrie, Cid, and Misenheimer soils. Uwharrie soils are redder than the Enon soil. These soils are on slightly elevated ridges in areas of intermediate and felsic geologic material. The moderately well drained and somewhat poorly drained Cid and Misenheimer soils are less stony than the Enon soil. These soils are in areas of argillite or slate rock formations in depressions and low areas. Also included are a few small areas of Enon soils that do not have stones on the surface. Included soils make up 15 to 20 percent of this map unit.

Most of the acreage of the Enon soil is used as woodland. A few small areas are used as pasture.

The major canopy trees are southern red oak, northern red oak, white oak, yellow-poplar, hickory, sweetgum, shortleaf pine, Virginia pine, and loblolly pine. Common understory plants are flowering dogwood, eastern redcedar, American holly, and sourwood. The stones on the surface are the main limitation affecting woodland use and management. Management concerns are seedling mortality and the equipment limitation.

In areas used as pasture, tall fescue is the main forage crop. The stones on the surface are the main limitation for pasture management (fig. 9).

The clayey subsoil, the slow permeability, the high shrink-swell potential, the stones on the surface, and the slope are the major limitations affecting building site development. The stones on the surface and the slope are limitations affecting most recreational uses.

The capability subclass is VIs, and the woodland ordination symbol is 7X.

EsE—Enon very stony loam, 15 to 25 percent slopes. This well drained soil is on side slopes in the uplands in the southern part of the county. Individual areas are irregular in shape and range from 5 to 100 acres in size.

Typically, the surface layer is dark grayish brown very stony loam about 2 inches thick. The subsurface layer is yellowish brown very stony loam about 4 inches thick. The subsoil is about 17 inches thick. It is yellowish brown sandy clay loam in the upper part, strong brown clay in the next part, and yellowish brown clay in the lower part. The underlying material to a depth of 60 inches or more is multicolored saprolite that has a texture of loam. Many stones and cobbles are on the surface. Scattered boulders are about 75 feet apart.

Permeability is slow. The shrink-swell potential is high. The depth to hard bedrock is more than 5 feet. Reaction ranges from moderately acid to mildly alkaline.

Included with this soil in mapping are small areas of Uwharrie soils. These soils are in intermingled areas of intermediate and felsic geologic material. They are redder than the Enon soil. Also included are a few small areas of Enon soils that do not have stones on the surface. Included soils make up 20 to 25 percent of this map unit.

Nearly all areas of the Enon soil are used as woodland. The major canopy trees are southern red oak, northern red oak, white oak, yellow-poplar, hickory, shortleaf pine, Virginia pine, and loblolly pine. Common understory plants are flowering dogwood, eastern redcedar, American holly, and sourwood. The slope and the stones on the surface are the main limitations affecting woodland use and management. Management concerns are the equipment limitation, seedling mortality, and the hazard of erosion.

This soil is generally unsuited to cropland, pasture, building site development, and recreational uses because of the slope and the stones on the surface. Wildlife habitat and game hunting are important uses of the soil.

The capability subclass is VIIs, and the woodland ordination symbol is 7X.

EuB—Enon-Urban land complex, 2 to 8 percent slopes. This map unit consists of intermingled areas of a well drained Enon soil and areas of Urban land on ridges in the uplands. The Enon soil makes up about 55 percent of the map unit, and the Urban land makes up about 30 percent. Most of this map unit is in and around Thomasville. Individual areas are irregular in shape and range from 5 to about 300 acres in size.

Figure 9.—A pasture of fescue on Enon very stony loam, 4 to 15 percent slopes. The stones on the surface are a limitation affecting pasture and other uses.

Typically, the surface layer of the Enon soil is yellowish brown fine sandy loam about 8 inches thick. The subsoil is about 26 inches thick. It is strong brown clay in the upper part, yellowish brown clay in the next part, and yellowish brown clay loam in the lower part. The underlying material to a depth of 60 inches or more is multicolored saprolite that has textures of clay loam and sandy loam.

Permeability is slow in the Enon soil. The shrink-swell potential is high. The depth to hard bedrock is more than 5 feet. Reaction ranges from moderately acid to mildly alkaline, unless the soil is limed.

The Urban land consists of areas covered by buildings, pavement, or other impervious material.

Included in mapping are small areas that have been cut, filled, or graded so that the topography and most of the natural soil properties have been altered. These areas are commonly adjacent to the Urban land. Also included are Mecklenburg, Poindexter, Zion, and Sedgefield soils. Mecklenburg soils are redder than the Enon soil. Poindexter and Zion soils have bedrock at a depth of 20 to 40 inches. Sedgefield soils are moderately well drained and somewhat poorly drained. Included soils make up about 15 percent of this map unit.

The clayey subsoil, the slow permeability, and the high shrink-swell potential are the main limitations affecting building site development. The slow

permeability is a limitation affecting septic tank absorption fields. Foundations should be designed to resist cracking caused by shrinking and swelling of the subsoil. Rapid runoff during rainstorms causes excessive flooding in low areas downstream. Removing the plant cover and grading construction sites causes a severe hazard of erosion unless erosion-control measures are applied. Onsite investigation is needed when the use and management of specific sites are planned.

This map unit has not been assigned a capability subclass or a woodland ordination symbol.

GeB—Georgeville silt loam, 2 to 8 percent slopes. This well drained soil is on upland ridges, mainly in the southern part of the county. Individual areas are broad and irregular in shape and range from 5 to about 300 acres in size.

Typically, the surface layer is strong brown silt loam about 9 inches thick. The subsoil is about 40 inches thick. It is red clay in the upper part and red silty clay loam in the lower part. The underlying material to a depth of 60 inches or more is multicolored saprolite that has a texture of silt loam.

Permeability is moderate. The shrink-swell potential is low. The depth to bedrock is more than 60 inches. Reaction ranges from very strongly acid to slightly acid.

Included with this soil in mapping are small areas of Badin soils. These soils are intermingled with areas of the Georgeville soil. They have weathered bedrock at a depth of 20 to 40 inches. They have a high content of slate fragments in the surface layer. Also included are a few eroded areas of Badin soils that have a surface layer of silty clay loam. Included soils make up 10 to 20 percent of this map unit.

Most areas of the Georgeville soil are used as cropland. A few areas are used as pasture. The rest are used as woodland.

The major cultivated crops are corn, soybeans, and small grain. Because of the slope and surface runoff, the hazard of erosion is moderate. Conservation practices are needed to help control erosion and runoff and to increase the content of organic matter (fig. 10). In areas used for hay and pasture, tall fescue and ladino clover are the main forage crops.

The major canopy trees are loblolly pine, shortleaf pine, yellow-poplar, white oak, northern red oak, southern red oak, sweetgum, and hickory. Common understory plants are flowering dogwood, American holly, eastern redbud, sourwood, and black cherry. No major limitations affect woodland use and management.

This map unit has no major limitations affecting building site development or recreational uses. However, the moderate permeability, the high content of clay in the subsoil, and the slope are limitations that affect some uses. Removing the plant cover on construction sites causes a moderate hazard of erosion unless erosion-control measures are applied.

The capability subclass is IIe, and the woodland ordination symbol is 8A.

GeD—Georgeville silt loam, 8 to 15 percent slopes. This well drained soil is on upland side slopes. It is mainly in the southern part of the county. Individual areas are long and narrow to irregular in shape and range from 5 to about 100 acres in size.

Typically, the surface layer is strong brown silt loam about 9 inches thick. The subsoil is about 40 inches thick. It is red clay in the upper part and red silty clay loam in the lower part. The underlying material to a depth of 60 inches or more is multicolored saprolite that has a texture of silt loam.

Permeability is moderate. The shrink-swell potential is low. The depth to bedrock is more than 60 inches. Reaction ranges from very strongly acid to slightly acid.

Included with this soil in mapping are small areas of Badin soils. These soils are intermingled with areas of the Georgeville soil. They have weathered bedrock at a depth of 20 to 40 inches. They have a high content of rock fragments in the surface layer. Also included are a few eroded areas of Georgeville soils that have a surface layer of silty clay loam. Included soils make up 15 to 20 percent of this map unit.

Most areas of the Georgeville soil are used as woodland. A few areas are used as pasture. The rest are used as cropland.

The major canopy trees are loblolly pine, shortleaf pine, yellow-poplar, white oak, northern red oak, southern red oak, sweetgum, and hickory. Common understory plants are flowering dogwood, American holly, eastern redbud, sourwood, and black cherry. No major limitations affect woodland use and management.

The major cultivated crops are corn, soybeans, and small grain. Because of the slope and surface runoff, erosion is a very severe hazard if the soil is used as cropland. Conservation practices are needed to help control erosion and runoff and to increase the content of organic matter. In areas used for hay and pasture, tall fescue and ladino clover are the main forage crops.

The slope is the main limitation affecting building site development and recreational uses. The moderate permeability and the clayey subsoil also are limitations affecting some uses. Removing the plant cover on construction sites causes a very severe hazard of erosion unless erosion-control measures are applied.

The capability subclass is IVe, and the woodland ordination symbol is 8A.

Ur—Urban land. This map unit consists of areas that are covered by streets, buildings, parking lots, railroad yards, airports, and other such urban uses. Because of the urbanization, the natural soils, dominantly Mayodan fine sandy loam, were greatly altered, and the original landscape, topography, and drainage patterns have been changed. Slope generally is 2 to 8 percent.

Most of the Urban land is in the business district of Sanford and in industrial areas around Sanford.

Because nearly all of the precipitation that falls in urban areas runs off, the hazard of flooding is increased in low-lying areas. Waterway and reservoir siltation from areas that are graded but not stabilized is a hazard. Recommendations for use and management of the soil and water in urban areas require onsite investigation.

This map unit is not in a capability subclass and does not have a woodland ordination symbol.

MEMORANDUM

DATE: July 17, 1997

TO: File

FROM: Stephanie L. Kozel
Hydrogeologist
NC Superfund Section

RE: Telecon with Allison Best, Davidson County Health Dept.
Triple Plating Facility
NCD #982 115 370

On July 17, 1997, I spoke with Ms. Allison Best of the Davidson County Health Department (910-242-2358). She wanted to update me on the lead blood testing of the children staying with Ms. Kinney at 3 Fischer Ferry Street. She informed me that Ms. Kinney kept 8 children during the day, and she thought that all of the children were relatives. She talked with Ms. Kinney and was told that her daughter and three grandchildren lived there and she kept her son's 2 or 3 children during the day. Ms. Best informed Ms. Kinney that the children under the age of 6 should be tested for elevated lead levels. The three children that live on the property went to the Thomasville pediatrician. The Health Department should receive the blood work within a few weeks. Two of the children were to arrive at the Health Department today to receive the test but as of this phone conversation, they had not. The other 2 or 3 children were stated to be above the age of 6, therefore a blood test would only be necessary if the other children tested positive. Walls, both inside and outside, were swabbed so they could be tested for an alternative source of lead exposure. Ms. Best stated that the owner of the property had evicted the Kinney's but she did not know the moving date. She also stated she would inform me when the blood test and wall scrapping results were in.

Stephanie Ref. 38

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

July 17, 1997

Mr. Myron D. Lair, Chief
Emergency Response and Removal Branch
U.S. EPA, Region IV
61 Forsyth Street, 11th Floor
Atlanta, Georgia 30303

Subject: Immediate Removal Evaluation Request
Triple Plating Inc.
27 West Main Street
Thomasville, Davidson County, North Carolina
NCD 982 115 370

Dear Mr. Lair:

The NC Superfund Section requests that the U.S. EPA evaluate the Triple Plating site for a possible removal action. The site is a former electroplating facility located within the city limits of Thomasville, Davidson County, North Carolina. The site is located within a residential area of Thomasville and is marked on Figure 1. The property is not fenced and therefore accessible to adjacent property owners and the public. A residence facing Fisher Ferry Road is on the Triple Plating property and a children's swing-set is directly adjacent to the Triple Plating foundation. The owner of the property, Ms. Bertha Perry, leased the buildings to Mr. Robert E. Gaddy for use as a electroplating facility, as well as leasing the residence, adjacent to the building, to Ms. Lee Kenney of Thomasville. Ms. Kenney has installed a swing-set on-site for her grandchildren, who she takes care of five days a week, 8-9 hours a day. The children play and have complete access to the Triple Plating property that is now abandoned and is under CERCLA jurisdiction. Sample results from the April 29, 1997 site inspection show that soil beneath the swing-set contain lead at 570 mg/kg (See Figure 2 for sample locations). One sump on the building slab contains lead at 4,000 mg/kg and PCBs at 40 mg/kg (complete sample results are shown in Table 1). The North Carolina Superfund Section is concerned about this obvious direct contact threat, particularly to the neighboring children.

P.O. Box 27687,
Raleigh, North Carolina 27611-7687
Voice 919-733-4996

NC
Reduce Reuse Recycle

FAX 919-715-3605
An Equal Opportunity Affirmative Action Employer
50% recycled/10% post-consumer paper

The site is currently owned by Ms. Bertha Perry of High Point, NC. Ms Perry's address is:

Ms. Bertha Perry
1909 Wakefield Place
High Point, NC 27262
(910)886-4740

The site poses a threat to the persons living on or adjacent to the site. The site is unfenced and easily accessible to the general public and poses a direct contact threat to the young children. Please let us know if and when an evaluation of this can be conducted, so that we may coordinate your site visit with our staff. If you have any questions concerning this site, please contact Stephanie Kozel at (919)733-2810 ext. 316 or myself at ext. 290.

Sincerely,

Pat DeRosa, Head
Site Evaluation and Removal Branch
NC Superfund Section

cc w/ attachments: Phil Vorsatz, US EPA Region IV
Mike Norman, US EPA Region IV
cc w/o attachments: Jack Butler, DWM
Mike Kelly, DWM
Doug Holyfield, DWM
Bruce Nicholson, DWM
Pat Williamson, DWM
Steve Phibbs, DWM Winston-Salem Office