OMB Approval Number: 2050-0095
Approved for Use Through: 1/92

EPA Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: GA | CERCLIS Number: GAN000407811

CERCLIS Discovery Date: 3/25/2005 ?

1. General Site Information

Name: SEVEN OUT LLC TANK	Street Address: 901 FRANCIS STREET				
City: WAYCROSS	State: GA	Zip Code: 31501	County: WARE	Co. Code:	Cong. Dist:
Latitude: 31° 12' 26.8" Longitude: 82° 21' 49.8"	Approximate Area of Site: 2 Acres ___ Square Ft		Status of Site: ☐ Active ☐ Not Specified ☑ Inactive ☐ NA (GW plume, etc.)		

2. Owner/Operator Information

Owner: SEVEN OUT LLC			Operator: SAME		
Street Address: 1859 E. ADAMS STREET			Street Address:		
City: JACKSONVILLE			City:		
State: FL	Zip Code: 32202	Telephone: (904) 356-3391	State:	Zip Code:	Telephone: ( )

Type of Ownership:
- ☑ Private
- ☐ Federal Agency Name ____
- ☐ State
- ☐ Indian
- ☐ County
- ☐ Municipal
- ☐ Not Specified
- ☐ Other ____

How Initially Identified:
- ☐ Citizen Complaint
- ☐ PA Petition
- ☑ State/Local Program
- ☐ RCRA/CERCLA Notification
- ☐ Federal Program
- ☐ Incidental
- ☐ Not Specified
- ☐ Other ____

3. Site Evaluator Information

Name of Evaluator: BRETT BLACKWELDER	Agency/Organization: GA-DNR-EPD	Date Prepared: 8/8/05	
Street Address: 2 MLK JR. DR., SUITE 1154 EAST		City: ATLANTA	State: GA
Name of EPA or State Agency Contact: ANDY TAFT		Street Address: 2 MLK JR. DR., SUITE 1154 EAST	
City: ATLANTA		State: GA	Telephone: (404) 656-2833

4. Site Disposition (for EPA use only)

Emergency Response/Removal Assessment Recommendation:
- ☐ Yes
- ☐ No
- Date: ____

CERCLIS Recommendation:
- ☐ Higher Priority SI
- ☐ Lower Priority SI
- ☐ NFRAP
- ☐ RCRA
- ☐ Other ____
- Date: ____

Signature:

Name (typed):

Position:

SITE: Seven Out LLC Tank
BREAK: 1.8
OTHER: v.1

CERCLIS Number:

5. General Site Characteristics

Predominant Land Uses Within 1 Mile of Site (check all that apply):
- ☑ Industrial
- ☑ Commercial
- ☑ Residential
- ☑ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility ______
- ☐ Other ______

Site Setting:
- ☑ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:
Beginning Year 2001
Ending Year 2004
☐ Unknown

Type of Site Operations (check all that apply):
- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals (e.g., pesticides, fertilizers)
  - ☐ Miscellaneous Chemical Products (e.g., adhesives, explosives, ink)
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility ______
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non- or Late Filer"
- ☐ Not Specified
- ☑ Other WASTE OIL PROCESSOR INDUSTRIAL WASTEWATER PROCESSOR

Waste Generated:
- ☐ Onsite
- ☑ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:
- ☑ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:
- ☑ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace: 220 Feet

6. Waste Characteristics Information

Source Type: (check all that apply)	Source Waste Quantity: (include units)	Tier*:
☐ Landfill		
☐ Surface Impoundment		
☐ Drums		
☑ Tanks and Non-Drum Containers	~523,000 GAL	V
☐ Chemical Waste Pile		
☐ Scrap Metal or Junk Pile		
☐ Tailings Pile		
☐ Trash Pile (open dump)		
☐ Land Treatment		
☐ Contaminated Ground Water Plume (unidentified source)		
☐ Contaminated Surface Water/Sediment (unidentified source)		
☑ Contaminated Soil	1,350 ft²	A
☐ Other ______		
☐ No Sources		

* C = Constituent, W = Wastestream, V = Volume, A = Area

General Types of Waste (check all that apply)
- ☑ Metals
- ☑ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other ______

Physical State of Waste as Deposited (check all that apply):
- ☑ Solid
- ☑ Sludge
- ☐ Powder
- ☑ Liquid
- ☐ Gas

Potential Hazardous Waste Site
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CERCLIS Number:

7. Ground Water Pathway

Is Ground Water Used for Drinking Water Within 4 Miles:
- ☑ Yes
- ☐ No

Type of Drinking Water Wells Within 4 Miles (check all that apply):
- ☑ Municipal
- ☑ Private
- ☐ None

Is There a Suspected Release to Ground Water:
- ☐ Yes
- ☑ No

Have Primary Target Drinking Water Wells Been Identified:
- ☐ Yes
- ☑ No

If Yes, Enter Primary Target Population: ________ People

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - ¼ Mile	0
> ¼ - ½ Mile	19,114
> ½ - 1 Mile	20
> 1 - 2 Miles	592
> 2 - 3 Miles	5,492
> 3 - 4 Miles	2,405
Total Within 4 Miles	27,623

Depth to Shallowest Aquifer: 350 Feet

Karst Terrain/Aquifer Present:
- ☐ Yes
- ☐ No

Nearest Designated Wellhead Protection Area:
- ☐ Underlies Site
- ☑ > 0 - 4 Miles
- ☐ None Within 4 Miles

8. Surface Water Pathway

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):
☑ Stream ☑ River ☐ Pond ☐ Lake ☐ Bay ☐ Ocean ☑ Other DRAINAGE DITCH

Shortest Overland Distance From Any Source to Surface Water:
1200 Feet
________ Miles

Is There a Suspected Release to Surface Water:
- ☑ Yes
- ☐ No

Site is Located in:
- ☐ Annual - 10 yr Floodplain
- ☐ > 10 yr - 100 yr Floodplain
- ☐ > 100 yr - 500 yr Floodplain
- ☑ > 500 yr Floodplain

Drinking Water Intakes Located Along the Surface Water Migration Path:
- ☐ Yes
- ☑ No

Have Primary Target Drinking Water Intakes Been Identified:
- ☐ Yes
- ☑ No

If Yes, Enter Population Served by Primary Target Intakes: ________ People

List All Secondary Target Drinking Water Intakes:

Name	Water Body	Flow (cfs)	Population Served
	Total within 15 Miles		

Fisheries Located Along the Surface Water Migration Path:
- ☑ Yes
- ☐ No

Have Primary Target Fisheries Been Identified:
- ☐ Yes
- ☑ No

List All Secondary Target Fisheries:

Water Body/Fishery Name	Flow (cfs)
CITY DRAINAGE CANAL	<10
SATILLA RIVER	>100

EPA Potential Hazardous Waste Site
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CERCLIS Number:

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:
☑ Yes
☐ No

Have Primary Target Wetlands Been Identified:
☐ Yes
☑ No

List Secondary Target Wetlands:

Water Body	Flow (cfs)	Frontage Miles
SATILLA RIVER	>100	~22.4
CITY DRAINAGE CANAL	<10	<1

Other Sensitive Environments Located Along the Surface Water Migration Path:
☐ Yes
☑ No

Have Primary Target Sensitive Environments Been Identified:
☐ Yes
☑ No

List Secondary Target Sensitive Environments:

Water Body	Flow (cfs)	Sensitive Environment Type

9. Soil Exposure Pathway

Are People Occupying Residences or Attending School or Daycare on or Within 200 Feet of Areas of Known or Suspected Contamination:
☐ Yes
☑ No

If Yes, Enter Total Resident Population:

________ People

Number of Workers Onsite:
☑ None
☐ 1 - 100
☐ 101 - 1,000
☐ >1,000

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:
☐ Yes
☑ No

If Yes, List Each Terrestrial Sensitive Environment:

10. Air Pathway

Is There a Suspected Release to Air:
☐ Yes
☑ No

Enter Total Population on or Within:

Onsite	0
0 - ¼ Mile	167
> ¼ - ½ Mile	1,241
> ½ - 1 Mile	4,090
> 1 - 2 Miles	9,644
> 2 - 3 Miles	7,195
> 3 - 4 Miles	2,995
Total Within 4 Miles	25,332

Wetlands Located Within 4 Miles of the Site:
☑ Yes
☐ No

Other Sensitive Environments Located Within 4 Miles of the Site:
☐ Yes
☑ No

List All Sensitive Environments Within ½ Mile of the Site:

Distance	Sensitive Environment Type/Wetlands Area (acres)
Onsite	
0 - ⅛ Mile	
> ⅛ - ½ Mile	

SI Needed
8/19/05
CPCallihan

PRELIMINARY ASSESSMENT

Seven Out LLC Tank
EPA ID # GAN000407811

Waycross, Ware County, Georgia

Prepared for
U.S. Environmental Protection Agency
Region IV

Prepared by
Brett Blackwelder

Georgia Environmental Protection Division
Hazardous Waste Management Branch

August 8, 2005

Reviewed by: [illegible]

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PRELIMINARY ASSESSMENT

SEVEN OUT LLC TANK
WAYCROSS, WARE COUNTY, GEORGIA

1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Georgia Environmental Protection Division conducted a Preliminary Assessment (PA) at the site known as Seven Out LLC Tank, located near the center of the City of Waycross, Ware County, Georgia. The purpose of this investigation was to identify the location of the site and to collect information concerning the conditions at the site sufficient to assess the threat posed to human health and the environment and to determine the need for additional investigation under CERCLA/SARA or other action. The scope of the investigation included a file review, a comprehensive target survey, an onsite reconnaissance, and an evaluation using the Guidance for Performing a Preliminary Assessment under CERCLA (Reference 1).

2.0 SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS

2.1 LOCATION

The Seven Out LLC Tank site is located in Waycross Georgia at 901 Francis Street. The location is south of the intersection where McDonald Street comes to a dead end into Francis Street (Reference 2). Waycross is the county seat for Ware County, which is located in the southeastern corner of the state of Georgia. The geographic coordinates are latitude 31 degrees 12 minutes 26.8 seconds, North and longitude 82 degrees 21 minutes 49.8 seconds West (Reference 1). Location was verified using a Global Positioning System (GPS) unit during the onsite reconnaissance (References 3 and 4).

2.2 SITE DESCRIPTION

Upon inspection of the site on April 7-8, 2005 it was apparent that the site is no longer in operation (Reference 4). Property records obtained from the Ware County Assessors Office website indicate the site consists of approximately 2 acres (Reference 5). The site includes a building, the waste treatment area or tank farm, and paved parking/loading areas. Located at 901 Francis Street is the building Seven Out LLC formerly used for office and storage space. At the time of the inspection this building was deserted and was being used by EPA for storage (Reference 4). The tank farm is approximately 180 feet by 100 feet and has secondary containment in place (Reference 4). At 801 Francis Street is The Sports Shop, Inc., which is located between Francis Street and the Seven Out LLC tank farm (Reference 6). The property south of the site is owned by CSX Railroad. Four frac tanks from the site are located on CSX property. The area surrounding the Seven Out LLC facility is a mixed use area including commercial, industrial, and residential property. The nearest residential property is located at 103 Folks Street approximately 220 feet from the tank farm area (Reference 4). Figure 2 depicts the site and surrounding area (Reference 4). Photographs taken during the onsite reconnaissance are included in the trip report (Reference 4).

2.3 OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

Sanborn Fire Insurance Maps indicate that the site was partially occupied on the west side by J.H. Gillon and Company's Foundry and Machine Shop and a lime and cement warehouse on the east side in 1897. The Gillon Machine Company continued to occupy the west side of the site through 1913, however, 1922 edition maps indicate the west side as vacant (Reference 7). The 1922 maps indicate that the east side was partially occupied by the John D. Hopkins Hay and Grain. In 1930, a grocery was added to the John D. Hopkins Hay and Grain. The 1947 maps indicate occupation of the site by a wholesale hay, grain, and grocery (Reference 7). Maps covering the time after 1947 could not be located.

The site was constructed to be an industrial wastewater processing facility (Reference 8). A request for a GAEPD/USEPA identification number for a used oil processor was received by GAEPD, on behalf of BCX Waycross, on December 11, 2001, and number GAR000030007 was assigned (Reference 9). The facility was permitted by the City of Waycross to discharge non-domestic pre-treated wastewater to the sewer for processing by the POTW (Reference 10). A representative of EPD performed a Used Oil processor compliance evaluation inspection on April 22, 2003. At the time of this inspection the facility had not received any used oil for processing (Reference 11). The facility apparently began operation shortly after the above inspection because the City of Waycross issued eight formal Notice of Violations for the months of May 2003 through January 2004 (Reference 12). These violations of the facilities discharge permit resulted in a Consent Order issued by the City on January 27, 2004 (Reference 13). This Consent Order was not signed by BCX, Inc., however a letter to the City dated March 3, 2004 stated that the facility was ceasing discharge to the City POTW (Reference 14). EPD conducted another inspection on April 6, 2004. At this time it was observed that the facility had ceased accepting industrial wastewater and stopped discharging to the Waycross POTW (Reference 15). On April 23, 2004, EPD issued a Notice of Violation to the facility for failing to determine the contents of 27 tanks located in the facility's tank farm and in the four flocculation box tanks (frac tanks)(40 CFR Section 262.11)(Reference 16). On June 2, 2004 a release of approximately 4000-5000 gallons of unknown liquid from a 10,000-gallon frac tank belonging to the facility occurred on the CSX property (Reference 17). EPD inspected the site and took soil samples from the spill area on June 23, 2004 (Reference 18). EPD sent a proposed Consent Order to the facility on July 20, 2004 for violations observed during the inspections conducted on April 6 and June 23, 2004, namely storing hazardous waste and unidentified wastewaters (Reference 19). EPD received responses from representatives of the facility, however the Consent Order was never signed by the facility (Reference 20). EPD requested assistance from EPA with sampling at the site. Sampling was performed on August 23-26, 2004 by EPA contractor Tetra Tech EM, Inc. A summary of the sampling results is shown in Table 2.1 and Table 2.2. Complete sampling results are included in the Removal Assessment Report prepared by Tetra Tech (References 8 and 21). Potential source areas at the site are listed in Table 2.3. EPD requested assistance from EPA with the remediation of the facility by letter dated January 21, 2005 (Reference 22).

Table 2.1 – Constituents Detected in Soil Samples at the Seven-Out, LLC Site

Constituent	**Soil Sample (Background)**	**Soil Sample (Drainage Ditch)**	**Soil Sample (Frac Tank Area)**	**Soil Sample (South Wall of Tank Farm)**
Arsenic	<3.93	<3.59J	<3.75	***151***
Barium	<3.93	15.5	7.11	***75.2***
Chromium	<1.96	***7.93***	<1.87	***8.69***
Copper	<1.96	***59.2***	***17.8***	***107***
Iron	596	***4910***	1080	***10800***
Lead	<3.93	***17.7****	10.8	***264***
Manganese	4.26	***74.7***	8.22	***169***
Zinc	4.11	***32.3***	8.32	***518***
Mercury	<0.0987	<0.0992	<0.0994	***0.350***
Benzene	<6.6J	32J	<5.3	<3.8J
Acenaphthalene	<0.330	610	<0.330	<0.330
Anthracene	<0.330	<0.330	<0.330	***1300***
Benzo(a)anthracene	<0.330	<0.330	<0.330	2400
Benzo(a)pyrene	<0.330	<0.330	<0.330	2800
Benzo(b)fluoranthene	<0.330	<0.330	<0.330	1800
Benzo(g,h,I)perylene	<0.330	<0.330	<0.330	2400
Benzo(k)fluoranthene	<0.330	<0.330	<0.330	3200
Chrysene	<0.330	<0.330	<0.330	3100
Fluoranthene	<0.330	<0.330	<0.330	4600
Indeno(1,2,3-cd)pyrene	<0.330	<0.300	<0.300	3000
Phenanthrene	<0.330	400	<0.300	***1800***
Pyrene	<0.330	<0.300	<0.300	4000

All samples units in mg/kg
Bold/italicized values indicate 3X background levels
*A lead sample from the drainage ditch also failed a TCLP, registering 8.13 mg/l.
(Reference 8)

Table 2.2 – Constituents Detected in Samples Taken from On-site Containers at the Seven-Out, LLC Site

Constituent	Highest Concentration	Container ID
Antimony	0.0208	CT-1-S/CT-1
Arsenic	NA	NA
Barium	3.7/4.8J	CD-3-S/CD-3/SS-2-S/SS-2
Cadmium	0.0806	ST-1/ST-1
Chromium	6.38	ST-1/ST-1
Cobalt	0.0716	SH-2-S/SH-2
Copper	31.7	CT-1-S/CT-1
Iron	2200	ST-1/ST-1
Lead	14.0	SH-4-S/SH-4
Manganese	29.3	ST-1/ST-1
Nickel	3.43	ST-1/ST-1
Zinc	21	ST-1/ST-1
Mercury	0.0057	Sulfuric Acid/Sulfuric Acid
1,2-Dichlorobenzene	0.560	DP-1 layer A/DP-1
1,4-Dichlorobenzene	0.780	DP-1 layer B/ DP-1
2-Butanone	2.2	OP-4-S/OP-4
4-Methyl-2-pentanone	0.850	NAOH/NAOH
Acetone	270J	SH-3-S/SH-3
Benzene	2.6	SH-4-S/SH-4
Chloroform	0.093	OP-4-S/OP-4
Isopropylbenzene	0.770	DP-1 layer B/ DP-1
m, p-Xylene	0.240	DP-1 layer B/ DP-1
Methyl tert-butyl ether	0.089	OP-4-S/OP-4
o-Xylene	0.440	DP-1 layer B/ DP-1
Toluene	0.130	DP-1 layer B/ DP-1
1-1'-Biphenyl	0.490	CT-1-S/CT-1
2-Methylnaphthalene	4.0	CT-1-S/CT-1
4-Methylphenol	3.8	NAOH/NAOH
Bis (2-ethylhexyl)phthalate	2.40	CT-1-S/CT-1
Diethyl phthalate	5.70	DP-1 layer B/ DP-1
Dimethyl phthalate	0.510	DP-2-S/DP-2
Di-n-butyl phthalate	12.00	DP-1 layer B/ DP-1
Fluorene	1.2	CT-1-S/CT-1
Isophorone	0.150	F237/F237
Naphthalene	1.0	CD-2-S/CD-2, CT-1-S/CT-1
Phenanthrene	1.0	CT-1-S/CT-1
Phenol	180J	OP-4-S/OP-4
Pyrene	1.40	CT-1-S/CT-1

All samples units in mg/l
NA – Not analyzed
(Reference 8)

Table 2.3 - Potential Source Areas at the Seven Out, LLC Site

Area	Description	Secondary Containment	Area/Volume	Included as a Source Area	Source Area ID #
Waste treatment area or Tank Farm.	37 tanks of different sizes containing unknown substances..	Yes	Area is approximately 18,000 square feet and volume of waste approximately 447,000 gallons.	Yes	Source No. 1
Frac Tanks.	3-18,000 gallon tanks and 1-22,000 gallon tank.	Not Present	Volume of waste is approximately 76,000 gallons.	Yes	Source No. 2
Soil at Frac Tanks.	Contaminated Soil at Frac Tank Area on CSX Railroad property..	Not Present	Soil area is approximately 1,250 square feet	Yes	Source No. 3
Soil at Tank Farm south wall.	Contaminated Soil outside of south wall of Tank Farm.	Not Present	Soil area is approximately 200 square feet.	Yes	Source No. 4
Drainage Ditch.	Contaminated Soil in Drainage Ditch south of Tank Farm.	Not Present	Soil area is approximately 100 square feet	Yes	Source No. 5

(References 4, 8, 21)

3.0 GROUNDWATER PATHWAY

3.1 HYDROGEOLOGIC SETTING

The Seven Out LLC Tank site lies in the east-central part of Ware County along the boundary of the Bacon Terraces and Okefenokee Swamp districts of the Eastern Gulf Coastal Plain Section of the Coastal Plain Province. Topography in the Bacon Terraces District consists of several moderately dissected terraces that normally parallel the coastline. These terraces generally vary in elevation between 15 and 30 feet, each, running from an elevation of 330 feet above sea level (ASL) to an elevation of 180 feet ASL. Drainage is primarily to the Satilla River Basin. The Okefenokee Basin District is characterized by low relief and numerous swamps. Drainage from the northern and western portions of the district flows to the tributaries that comprise the Suwannee River basin. Drainage from the southeastern part of the swamp is to the St. Mary's River (Reference 23).

The site is underlain by Pleistocene and Pliocene sands and gravels, primarily associated with the Brandywine, Coharie, and Suderland formations. The Brandywine Formation consists of less than 50 feet of sand and gravel which resembles the coarser sands of the Hawthorn, unconformably stratigraphically below the Brandywine. Should any formations overlie the Brandywine, these would probably lie unconformably. The Coharie Formation may overlie the Brandywine Formation or the

Hawthorn, both unconformably. The lithology of the Coharie includes less than 50 feet of sand, some coarse in nature. In some area, angular pebbles may be present, however, other areas may contain smooth flat pebbles of transparent quartz. The Sunderland Formation consists of fine white or light-gray sand. Where the Sunderland is present, it may be overlain by marshy, boggy environments, associated with wetlands. The unconformities within all of the mentioned formations result from continuous advances and retreats of the Atlantic Ocean (Reference 24).

The sources at the site were either relatively small (contaminated soils in the frac tank area and in the area behind the secondary containment berm) or were primarily contained in a concrete secondary containment system (References 4, 8, 21). As evidenced during rainfall during the VSI, infiltration rate is not high and the subsurface to a great depth does not appear to be highly permeable (Reference 4). Releases to the soils would most likely have migrated to the surface water pathway more readily than the groundwater pathway at the site. The site is not karst according to the City of Waycross Wellhead Protection Plan (Reference 25).

Groundwater production in the Waycross area occurs primarily from the Ocala Limestone of the Principal Floridan Aquifer at depths exceeding 500 feet. Previously operated wells in the Waycross area encountered groundwater in a fine to coarse-grained sand between 350 and 400 feet deep and in limestone below 500 feet deep (Reference 26). Within the Coastal Plain, groundwater is usually encountered in medium to coarse sands and in limestones.

The primary public supplies of groundwater are provided by the City of Waycross, Waycross/Ware Industrial Park, and the Satilla Regional Water and Sewer Authority (References 29 and 30). Groundwater withdrawal in Ware County accounts for 84% of all water supplies in the county. Groundwater is the sole water supply used for public consumption. Roughly half of the groundwater withdrawn in Ware County is used for public supply (Reference 31).

The Seven Out LLC Tank site lies within an area determined to have a higher (Drastic Rating > 141) groundwater pollution susceptibility rating (Reference 32). The site is not located within a significant groundwater recharge area (Reference 33).

3.2 GROUNDWATER TARGETS

Since no release to groundwater is suspected, no primary target is present. Secondary targets have been identified due to the potential for contamination.

Major suppliers of groundwater include the City of Waycross (3 wells), the Satilla Regional Water and Sewer Authority (5 wells), and the Waycross/Ware County Industrial Park (2 wells). Seven (7) of these wells exist within the 4-mile radius in the Floridan aquifer: City of Waycross has three (3) within the ¼-1/2 mile radius, Satilla Regional Water and Sewer Authority has three (3) wells, and the Waycross/Ware County Industrial Park has one (1) well The site does not fall within a wellhead protection area of any of the City of Brunswick wells. Two (2) additional wells in the Floridan aquifer are at the Baptist Retirement Village, west of the site in the 2-3 mile radius (References 29, 30, 34).

Additional wells include numerous residential wells located within the four (4) mile radius (References 27 and 28). Table 3.1 provides a complete listing of groundwater wells and user population identified within the 4-mile radius. Figure 3 shows the 4-mile radius from the site with the major groundwater wells identified (References 27, 28, 29, 30, 34, and 35)

Table 3.1 - Groundwater Users Within 4-mile Radius of Site

Distance (miles)	# of Drilled Wells	Population on Wells
0-.25	0	0
.25 - .5	4	19,114
.5 - 1.0	7	20
1.0 - 2.0	105	592
2.0 - 3.0	310	5,492
3.0 - 4.0	721	2,405
Totals	1,147	27,623

(References 27, 28, 29, 30, 34)

There have been no known complaints about the appearance, smell, or taste of well water from groundwater users anywhere within the 4-mile target distance of the site.

Because the area covered by the site is small and because the surrounding area is mostly residential or commercial, resources were not identified during the Visual Site Inspection (Reference 4).

3.3 GROUNDWATER CONCLUSIONS

Groundwater contamination is not suspected at this site. However, the large number of secondary targets and the potential for groundwater contamination is a cause for concern. Four wells that serve 19,114 people are within 0.25-0.50 mile from the site. At the time of the visual site inspection, there was an estimated 576,000 gallons of potentially hazardous waste at the site.

4.0 SURFACE WATER PATHWAY

4.1 HYDROLOGIC SETTING

The Seven Out LLC Tank site lies in an area of minimal flooding outside of both the 100-year and 500-year flood zones (Reference 36). Overland flow from the site flows into a drainage ditch south of the tank farm and north of the railroad tracks on the site. This drainage ditch continues west, roughly parallel to the railroad tracks, for approximately 1200 feet into an unnamed creek.

This point is the Probable Point of Entry (Figures 2 and 4). This creek flows northeast for approximately 2000 feet before continuing underground by culvert. Water then flows underground in an east direction for approximately 3000 feet before exiting near the intersection of Lee Avenue and Memorial Drive (Hwy 23). Water then flows east for less than 1000 feet before joining the City Drainage Canal. The City Drainage Canal is approximately 1.0 mile from the PPE. The City Drainage Canal flows in a northeast direction for approximately 2.8 miles before joining the Satilla River (Figure 5). Three creeks or streams enter the City Drainage Canal. Bailey Branch enters from the northwest approximately 1.8 miles from the PPE. Caney Branch enters from the northwest approximately 2.4 miles west of the PPE. An unnamed stream enters the City Drainage Canal from the south approximately 3.2 miles from the PPE. The Satilla River is approximately 3.8 miles from the PPE. The 15-mile total distance limit (TDL) continues along the Satilla River (Reference 37). Figure 6 traces the 15-mile TDL from the PPE (Reference 37). The nearest wetland appears to be approximately 3.0 miles from the PPE on the City Drainage Canal. From this point downstream the remaining 12 miles of the TDL is bordered by wetlands that include palustrine forested and palustrine scrub types (Figure 7)(Reference 38). The United States Geological Survey (USGS) has a gauging station located on the Satilla River approximately 0.5 mile upstream of the confluence with the City Drainage Canal. Annual mean streamflow at this location ranges from a low of 228 cfs in 2002 to a high of 2,589 cfs in 1964 (Reference 39). Rainfall in the region averages 51 inches annually with average annual runoff at 11 inches (Reference 40).

Sampling of the drainage ditch by EPA contractors documented releases of chromium, copper, lead, manganese, and zinc at levels three (3) times the background sample. Lead levels were recorded to be above hazardous waste TCLP values (Table 2.1)(Reference 8). These analytical results provide suspicion that some contaminated wastewater may have been disposed into the ditch on the south side of the site.

4.2 SURFACE WATER TARGETS

There are no drinking water intakes on the surface water pathway at or within fifteen (15) miles downstream from the Seven Out LLC Tank site (References 34 and 37). Therefore, no primary or secondary surface water drinking water intake targets were identified. Interviews with local residents indicated that the unnamed creek that drains the site is not fished, while the City Drainage Canal and Satilla River are fished (References 4 and 43). Most fishing is done in the Satilla River, however it cannot be stated conclusively that fish taken from the City Drainage Canal are not consumed by humans (Reference 43). The City Drainage Canal is approximately 1.0 mile from the PPE. The nearest wetland appears to be approximately 3.0 miles from the PPE on the City Drainage Canal (Reference 38). From this point downstream the remaining 12 miles are bordered almost continuously by wetlands (Figure 2)(Reference 38).

4.3 SURFACE WATER CONCLUSIONS

The surface water pathway is not a major concern at the Seven Out LLC Tank site. Results from samples taken from the south side drainage ditch of the site indicate a release to the overland runoff route of the Surface water Migration Pathway (Reference 8). The site's close proximity to surface water, downstream fisheries, and downstream wetland environments could be a concern. There are no drinking water intakes along the 15-mile surface water pathway (References 34 and 37).

5.0 SOIL EXPOSURE PATHWAY

5.1 PHYSICAL CONDITIONS

The Seven Out LLC Tank site is underlain by soils associated with the Norfolk Sand. The Norfolk Sand is a loose, unconsolidated gray or brown, medium to coarse sand that extends for about 7 inches in depth. The subsoil below 7 inches to a depth of 36 inches is comprised of a loose incoherent yellow sand, usually coarser and lighter in texture than the soil. Fine quartz sand gravel and coarse sand may be interspersed throughout the soil and subsoil. The Norfolk Sand most commonly occurs as irregularly shaped bodies along the Satilla River and its tributaries. Topography along these tributaries tends to be level to slightly rolling (Reference 44). Within the site, soil staining has been observed next to the tank farm secondary containment structure. Soil staining has been observed in the frac tank area, which is located on the adjacent CSX Railroad property (Appendix A and E).

5.2 SOIL EXPOSURE TARGETS

Soil contamination has been documented at the site. Table 2.1 summarizes constituents that were detected in soil sampling conducted by EPD contractors. Metals, benzene, and semi-volatile organics (primarily PAHs) have been documented at the site (Reference 8). The Seven Out LLC Tank site is no longer in operation, therefore no site workers are exposed to potential contamination. There are no residences, schools, or daycare facilities within 200 feet of the suspected areas of soil contamination, nor does a migration pathway exist. The adjacent business, The Sports Shop, Inc., has three employees, however there is no suspected soil contamination at that location (References 4 and 6).

Nearby resident populations, as provided by the Census of Population and Housing, 2000 (Reference 28). are summarized in Table 5.1. Approximately 5,498 people live within one mile of the site (Reference 28).

According to information provided by the Georgia Department of Natural Resources, six (6) endangered, threatened or unusual species have been identified in the northwestern quadrant of the Waycross East 7.5' topographic map in Ware County. These species include the Spotted Turtle (*Clemmys guttata*), the Gopher Tortoise (*Copherus polyphemus*), the Chapman Oak (*Quercus chapmanii*), the Parrot Pitcherplant (*Sarracenia psittacina*), the Sandhill Skullcap (*Scutellaroa* *arenicola)*, and the Ohoopee Burnelia (*Sideroxylon sp.1*)(References 41 and 42). These species have not been observed in habitat at the site (Reference 4).

Table 5.1 - Nearby Resident Populations Within One Mile Radius of Site

Distance	0 - .25 mile	.25 - .50 mile	.50 - 1 mile	Totals
Population	167	1241	4090	5498

(Reference 28)

5.3 SOIL EXPOSURE CONCLUSIONS

The soil exposure pathway appears to pose a minimum threat due to the lack of a resident population and a lack of workers at the site.

6.0 AIR PATHWAY

6.1 PHYSICAL CONDITIONS

The Seven Out LLC Tank site is located at approximately 135 feet above sea level. The Seven Out LLC Tank site is located in the city of Waycross in a highly developed area. The area surrounding the Seven Out LLC facility is a mixed-use area including commercial, industrial, and residential property (Reference 4).

6.2 AIR PATHWAY TARGETS

The major targets within the 4-mile radius of the site include the residents of the City of Waycross and surrounding Ware and Pierce counties. Census of Population and Housing, 2000 data indicates that the population within the 4-mile radius of the site is 25,333 people as summarized in Table 6.1 (Reference 28).

Table 6.1 - Population Within 4-Mile Radius of the Seven Out LLC Tank site

Distance	0-.25 mile	.25-.50 mile	.50 - 1 mile	1-2 mile	2-3 miles	3-4 miles	Totals
Population	167	1241	4090	9644	7195	2995	25333

(Reference 28)

No primary targets were identified. The surrounding residents constitute a secondary target.

6.3 AIR PATHWAY CONCLUSIONS

No release into the air is suspected at the Seven Out LLC Tank site.

7.0 SUMMARY AND CONCLUSIONS

The Seven Out LLC Tank site is no longer in operation. Sample results obtained during a Removal Assessment performed by Tetra Tech EM, Inc. indicate some soil contamination and the presence of hazardous constituents in the tanks at the site. No groundwater contamination is suspected at the site. There does exist a threat of potential groundwater contamination due to the volume of waste contained in tanks at the site and the presence of three City of Waycross water supply wells within 0.25-0.50 mile from the site. The majority of the tanks at the site do however have secondary containment in place. There has been a suspected release to surface water from the site, however the surface water pathway is not a major concern because there are no surface water supply intakes within 4 miles of the site. There is a limited threat to the Human Food Chain due to the possible existence of a fishery approximately one mile from the site PPE. This fishery is the City Drainage Canal where some people have been observed fishing, however consumption of caught fish could not be documented. Soil exposure is not considered a serious threat because no primary exposure targets were identified. In addition, since no release into the air is suspected the air pathway is not considered a concern. In conclusion, based on all of the information obtained, the Seven Out LLC Tank site is recommended for further evaluation under the Hazardous Ranking System primarily due to the presence of hazardous constituents contained in tanks at the site and the nearby presence of three City of Waycross water supply wells.

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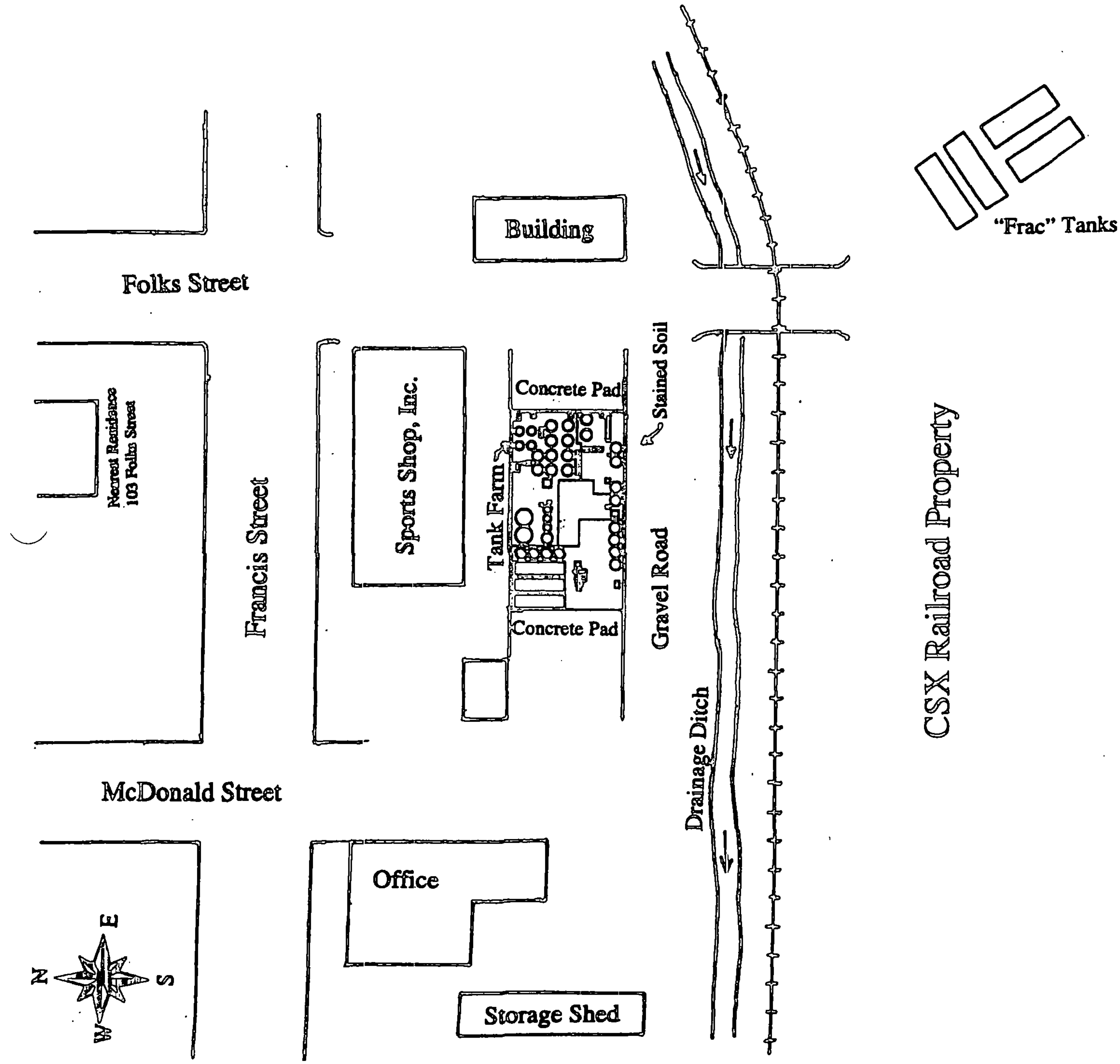
FIGURE 1: General Site Location



Not to Scale

FIGURE 2: Site Sketch

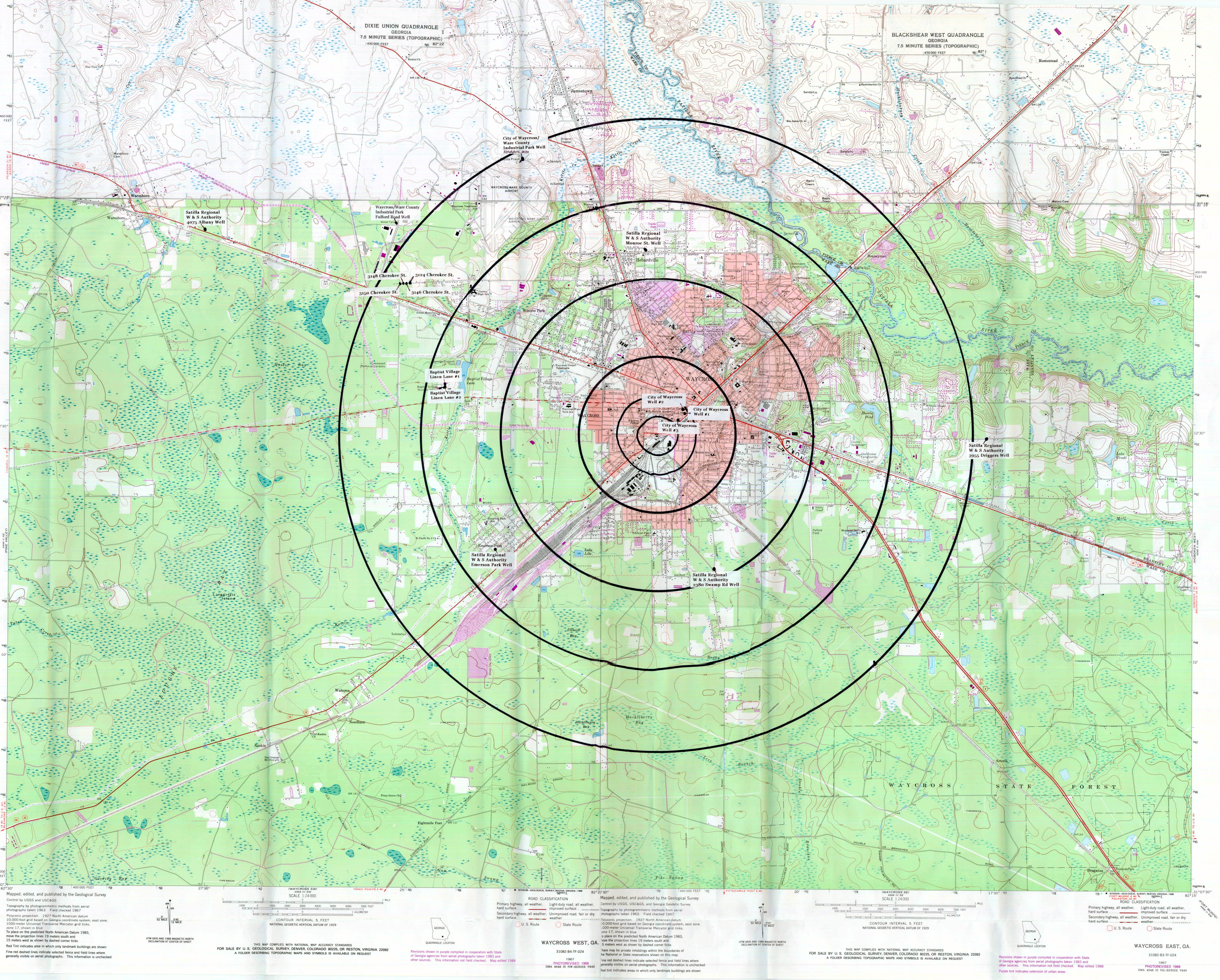

DIXIE UNION QUADRANGLE
GEORGIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
BLACKSHEAR WEST QUADRANGLE
GEORGIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
City of Waycross/ Ware County Industrial Park Well
Waycross/Ware County Industrial Park Fulford Road Well
Satilla Regional W & S Authority 4075 Albany Well
Satilla Regional W & S Authority Monroe St. Well
3148 Cherokee St.
3124 Cherokee St.
3150 Cherokee St.
3146 Cherokee St.
Baptist Village Linen Lane #1
Baptist Village Linen Lane #2
City of Waycross Well #2
City of Waycross Well #1
City of Waycross Well #3
Satilla Regional W & S Authority 3955 Driggers Well
Satilla Regional W & S Authority Emerson Park Well
Satilla Regional W & S Authority 2380 Swamp Rd Well
WAYCROSS STATE FOREST
WAYCROSS WEST, GA.
WAYCROSS EAST, GA.

FIGURE 4: Run-off Route/Point of Probable Entry

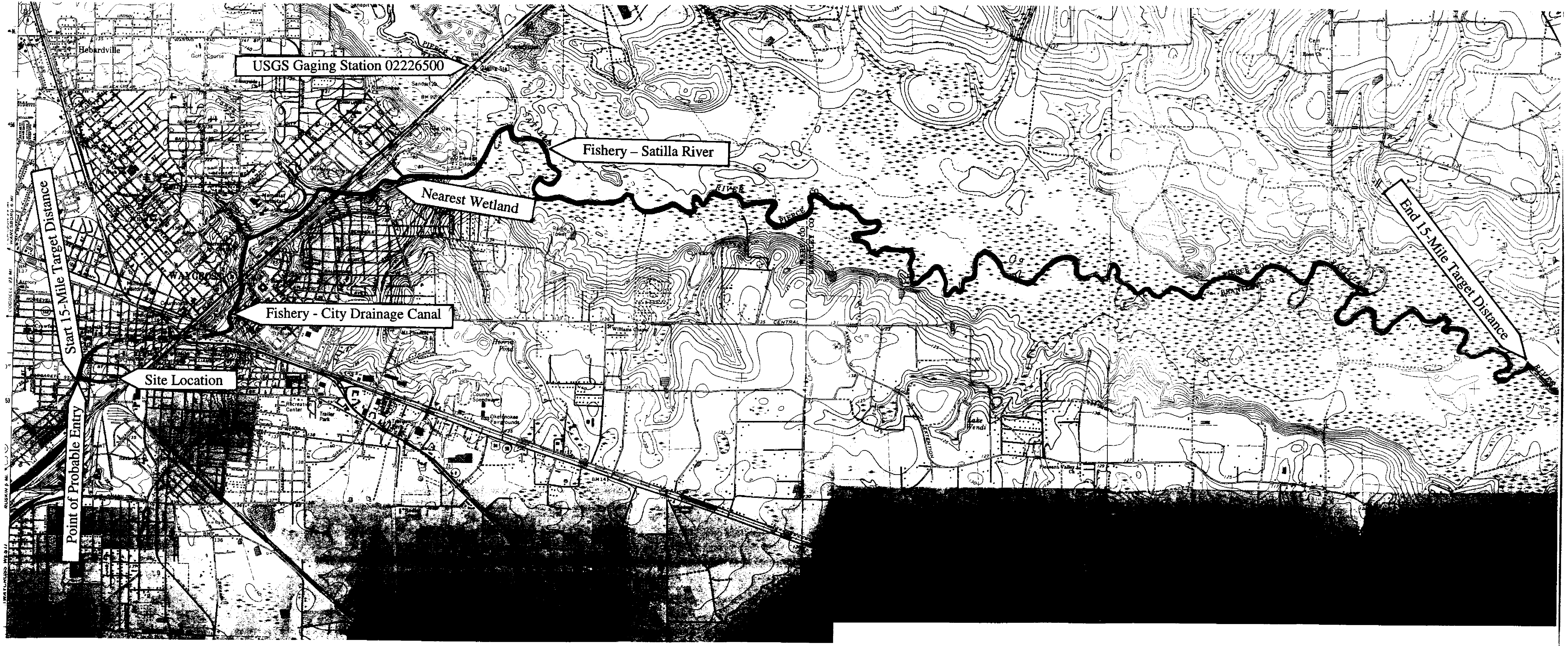


FIGURE 5: 15-Mile Downstream Target Distance

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAYCROSS EAST QUADRANGLE
GEORGIA
7.5 MINUTE SERIES (TOPOGRAPHIC)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HOBOKEN WEST QUADRANGLE
GEORGIA
7.5 MINUTE SERIES (TOPOGRAPHIC)

31°07'30" 82°22'30" 440 000 FEET 20' (WAYCROSS SE) 4546 III SE 17'30" 82°15' 480 000 FEET 12'30" (FORT MUDGE) 4546 II SW 10' 31°07'30" 82°07'30"

FIFTEENMILE POST 9 MI.

FORT MUDGE 6 MI.
FOLKSTON 28 MI.

RACEPOND 9 MI.

(WAYCROSS SW) 4546 III SW

(WINOKUR) 4546 II SE

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and Georgia Geodetic Survey

Topography by photogrammetric methods from aerial photographs taken 1963. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Georgia coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks,
zone 17, shown in blue
To place on the predicted North American Datum 1983,
move the projection lines 19 meters south and
15 meters west as shown by dashed corner ticks

There may be private inholdings within the boundaries of
the National or State reservations shown on this map

Fine red dashed lines indicate selected fence and field lines where

UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

MN GN 3° 53 MILS 0°41' 12 MILS

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 5 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

GEORGIA
QUADRANGLE LOCATION

Revisions shown in purple compiled in cooperation with State
of Georgia agencies from aerial photographs taken 1983 and

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1988

ROAD CLASSIFICATION

Primary highway, all weather, hard surface
Light-duty road, all weather, improved surface
Secondary highway, all weather, hard surface
Unimproved road, fair or dry weather
U. S. Route
State Route

WAYCROSS EAST, GA.

31082-B3-TF-024

1967

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and Georgia Geodetic Survey

Topography by photogrammetric methods from aerial photographs taken 1963. Field checked 1967

Polyconic projection. 1927 North American datum
10,000-foot grid based on Georgia coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks,
zone 17, shown in blue

To place on the predicted North American Datum 1983,
move the projection lines 19 meters south and
15 meters west as shown by dashed corner ticks

Fine red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked

UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

MN GN 3° 53 MILS 0°37' 11 MILS

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

GEORGIA
QUADRANGLE LOCATION

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1988

ROAD CLASSIFICATION

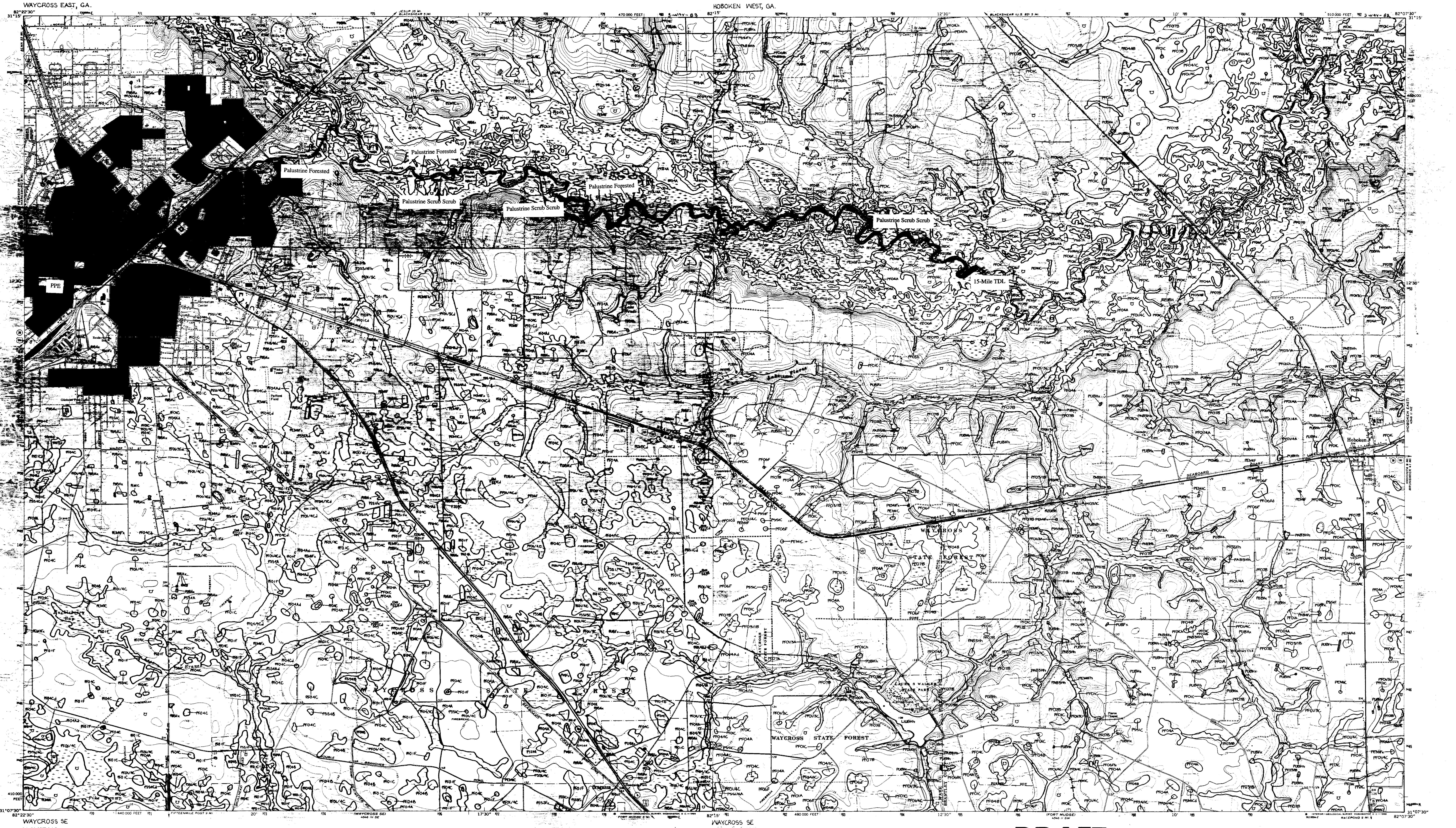
Primary highway, all weather, hard surface
Light-duty road, all weather, improved surface
Unimproved road, fair or dry weather
U. S. Route
State Route

HOBOKEN WEST, GA.

31082-B2-TF-024

NATIONAL WETLANDS INVENTORY
UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL WETLANDS INVENTORY
UNITED STATES DEPARTMENT OF THE INTERIOR



WAYCROSS EAST, GA/WAYCROSS

HOBOKEN WEST, GA.

DRAFT

SCALE 1:24 000

1 acre   10 acres   20 acres

ACREAGE GUIDE

For information on availability of NWI maps, call 1-800-USA-MAPS.

Regional Director (ARDE)
Region IV
U.S. Fish and Wildlife Service
1875 Century Blvd.
Room 240
Atlanta, GA 30345

Other information including a narrative report concerning the wetland resources depicted on this document may be available. For information, contact.

1:100,000 NAME: WAYCROSS SE / WAYCROSS	TOPO NAME: HOBOKEN WEST GA.	TECHNICAL RESPONSIBILITY		
		TASK	NAME	DATE
		ZTS Transfer	R. MONGOLD	6-8-88
		ZTS Lettering	"	7-1-88
		ZTS QC	S.J. LUMLEY-SHARPE	7-88
		MAP PI QC	K Schultz	7/26/88
		ZTS CORRECTION	R. MONGOLD	8-2-88
		CORRECTION CHECK	S.J. LUMLEY-SHARPE	8-5-88
		F.W.S. ACCEPT	JIM TERRY	9-7-88

SPECIAL NOTE

This document was prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography in accordance with **Classification of Wetlands and Deepwater Habitats of the United States** (FWS/OBS - 79/31 December 1979). The aerial photographs typically reflect conditions during the specific year and season when they were taken. In addition, there is a margin of error inherent in the use of the aerial photographs. Thus, a detailed on the ground and historical analysis of a single site may result in a revision of the wetland boundaries established through photographic interpretation. In addition, some small wetlands and those obscured by dense forest cover may not be included on this document.

Federal, State and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, State or local government or to establish the geographical scope of the regulatory programs of government agencies. **Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, State or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.**

SYMBOLOGY EXAMPLE

SYSTEM
SUBSYSTEM
CLASS
L2EM2F
SUBCLASS WATER REGIME
UPLAND (NON-WETLAND)
R2OWH
(LINEAR DEEPWATER HABITAT)

℧ — Primarily represents **upland** areas, but may include unclassified wetlands such as man-modified areas, non photo-identifiable areas and/or unintentional omissions.

NOTES TO THE USER

- Wetlands which have been field examined are indicated on the map by an asterisk (*)
- Additions or corrections to the wetlands information displayed on this map are solicited. Please forward such information to the address indicated.
- Subsystems, Classes, Subclasses, and Water Regimes in *italics* were developed specifically for NATIONAL WETLANDS INVENTORY mapping.
- Some areas designated as R4SB, R4SBW, OR R4SBJ (INTERMITTENT STREAMS) may not meet the definition of wetland.
- This map uses the class Unconsolidated Shore (US). On earlier NWI maps that class was designated Beach/Bar (BB), or Flat (FL). Subclasses remain the same in both versions.

AERIAL PHOTOGRAPHY

DATE:	1 / 83	DATE:	/ /
SCALE:	1:58 000	SCALE:	
TYPE:	CIR	TYPE:	

U.S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Prepared by National Wetlands Inventory

2000

M — MARINE
1 — SUBTIDAL
2 — INTERTIDAL
E — ESTUARINE
R — RIVERINE
L — LACUSTRINE
1 — LIMNETIC
2 — LITTORAL
P — PALUSTRINE
MODIFIERS
SYSTEM
SUBSYSTEM
CLASS
Subclass

Hoboken West

APPENDIX B

Reference 1

EPA/540/G-91/013
Publication 9345.0-01A
September 1991

Guidance for Performing Preliminary Assessments Under CERCLA

Hazardous Site Evaluation Division
Office of Emergency and Remedial Response
Office of Solid Waste and Emergency Response
U.S. Environmental Protection Agency
Washington, DC 20460

Printed on Recycled Paper

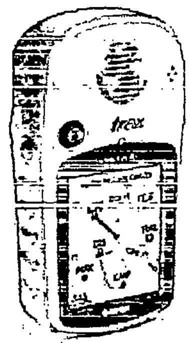
Reference 2

U.S.G.S. 7.5' Topographic Map (1:24000) for Waycross East (1967, photorevised 1988) is included in the Figure 3 and Figure 7 in the Figures section of this report.

Reference 3

Outdoor

eTrex Vista C



Product Images

Package Includes:

- eTrex Vista C
- One basemap below:
  - Americas: Americas Recreational
  - Europe: Atlantic Recreational
  - Australia: Pacific Recreational
- MapSource® Trip & Waypoint Manager CD
- PC/USB interface cable
- Wrist strap
- Quick reference guide
- Owner's manual

WAAS enabled BlueChart compatible Geocaching ready

The eTrex Vista® C is Garmin's exciting, new, pocket-sized handheld that brings color, automatic routing, longer battery life, plus more to our popular-selling eTrex Vista. You won't miss a thing when you take this colorful, lightweight, easy-to-use handheld out hiking, biking, boating or even geocaching. The eTrex Vista C along with the eTrex Legend C are Garmin's smallest, least expensive products to combine a color TFT display and advanced GPS routing capabilities in a waterproof design.

In addition to its distinguishing features — barometric altimeter and electronic compass — outdoor enthusiasts will love the latest improvements made to the eTrex Vista C:

- 256-color, sunlight-readable display makes it easy to distinguish map details and see where you're going
- Automatic route generation, off-route recalculation, turn-by-turn directions with alert tones, and icon-driven menus for finding points of interest (when combined with Garmin's optional MapSource® CDs) navigate you safely to your destination
- Longer battery life for more hours of outdoor enjoyment
- Mini-USB port for fast, convenient download of map data from Garmin's entire library of optional MapSource CDs using a PC

Of course the eTrex Vista C still includes those popular features that users have come to love and expect in the eTrex product line, such as a compact, lightweight, waterproof design and user-friendly interface. It is WAAS-enabled, and like all eTrex units, the primary controls are oriented on the side of the unit, so the user can conveniently operate it with one hand. Also, an innovative rocker switch is located on the face of the unit that enables the user to input data easily, scroll through menus, or pan the map page.

Garmin part number: 010-00368-00

Suggested Retail Price:
$374.99 U.S.D. (for domestic US market only)

eTrex Family Quick Links

eTrex
eTrex Camo
eTrex Summit
eTrex Venture
eTrex Legend
eTrex Vista
eTrex Legend C

eTrex Family Showcase

Which eTrex is right for you? View 360 images and compare features. Launch Showcase

*requires flash player

eTrex Extras

Product Comparison

MapSource Compatibility

Garmin Recommends:
Select MapSource Product
Go

* denotes limitations

Reference 4

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 1 of 47 **Date:** 4/7/2005 **Time:** 2:30 pm **Direction:** looking NE **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of back southwest corner of wastewater treatment plant.

Picture: 2 of 47 **Date:** 4/7/2005 **Time:** 2:32 pm **Direction:** looking E **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of back south side of wastewater treatment plant.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 3 of 47 **Date:** 4/7/2005 **Time:** 2:34 pm **Direction:** looking NW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of wastewater storage tanks on the east side of the wastewater treatment plant.

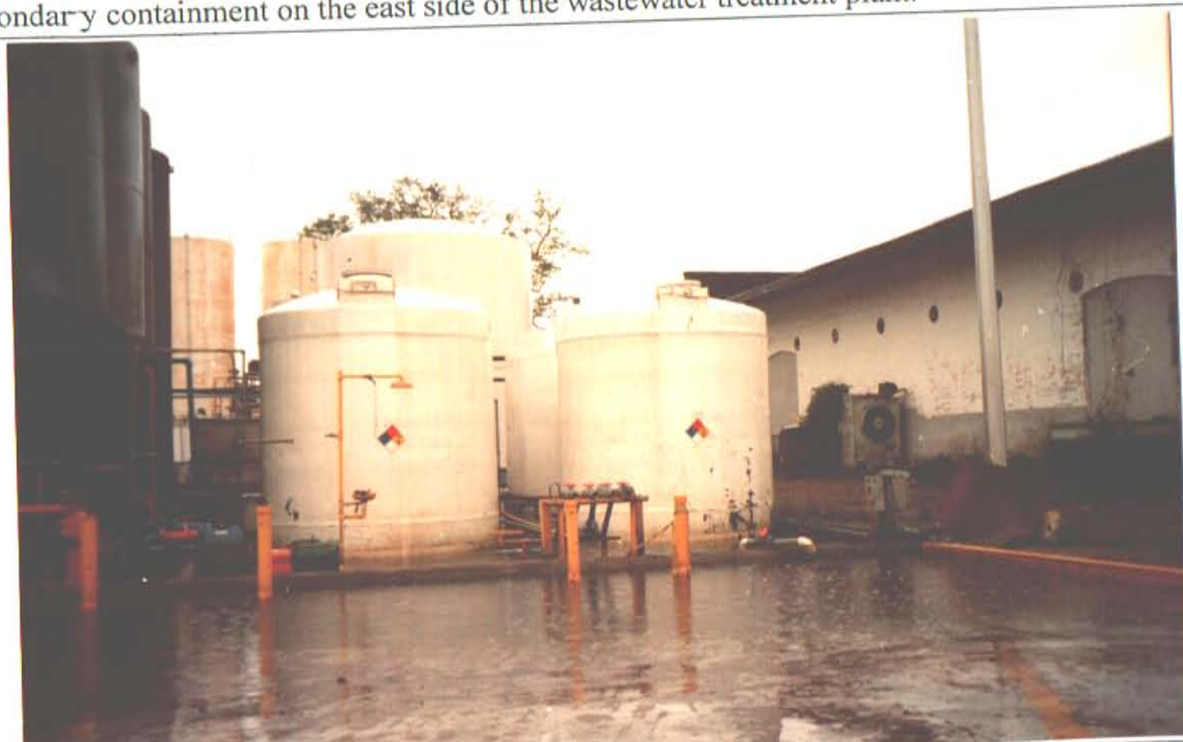
Picture: 4 of 47 **Date:** 4/7/2005 **Time:** 2.36 pm **Direction:** looking NW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of east side of wastewater treatment plant. Note stained soil/sawdust outside of containment area.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 5 of 47 **Date:** 4/7/2005 **Time:** 2:38 pm **Direction:** looking SW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of standing rainwater in the secondary containment on the east side of the wastewater treatment plant.

Picture: 6 of 47 **Date:** 4/7/2005 **Time:** 2:40 pm **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** Additional view of ponded rainwater on the outside of the plant's secondary containment.

Picture: 7 of 47 **Date:** 4/7/2005 **Time:** 2:42 pm **Direction:** looking SW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** Additional view of standing rainwater in the secondary containment on the east side of the wastewater treatment plant.



Picture: 8 of 47 **Date:** 4/7/2005 **Time:** 2:44 pm **Direction:** looking WNW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of chemical treatment tanks on the east side of the wastewater treatment plant.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 9 of 47 **Date:** 4/7/2005 **Time:** 2:46 pm **Direction:** looking SW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of storm water drain at the edge of parking lot between 901 Francis Street and 801 Francis Street. Drain empties to ditch on east side of facility.

Picture: 10 of 47 **Date:** 4/7/2005 **Time:** 2:48 pm **Direction:** looking W **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of drainage ditch located on east side of facility where suspected improper wastewater discharges may have occurred.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 11 of 47 **Date:** 4/7/2005 **Time:** 2:50 pm **Direction:** looking N **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of facility's storage tanks with the drainage ditch in the foreground.

Picture: 12 of 47 **Date:** 4/7/2005 **Time:** 2:52 pm **Direction:** looking NW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of ditch area where drainage from site flows under railroad tracks and discharges into drainage ditch on east side of facility.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 13 of 47 **Date:** 4/7/2005 **Time:** 2:54 pm **Direction:** looking SE **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams Subject: View of "frac" tanks on CSX rail property. Tanks were used to store wastewater for future treatment.

Picture: 14 of 47 **Date:** 4/7/2005 **Time:** 2:56 pm **Direction:** looking SE **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject**: Additional view of the "frac" tanks on the CSX rail property.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 15 of 47 **Date:** 4/7/2005 **Time:** 2:58 pm **Direction:** looking NW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of some ASTs abandoned on the property of CSX rail where the "frac" tanks were stored.

Picture: 16 of 47 **Date:** 4/7/2005 **Time:** 3:15 pm **Direction:** looking N **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of a portion of the surface water pathway located northwest of the facility.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 17 of 47 **Date:** 4/8/2005 **Time:** 8:30 am **Direction:** looking SE **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of some of the piping outside of the secondary containment system of the wastewater treatment plant.

Picture: 18 of 47 **Date:** 4/8/2005 **Time:** 8:32 am **Direction:** looking E **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of soil on east side of wastewater treatment plant.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 19 of 47 **Date:** 4/8/2005 **Time:** 8:34 am **Direction:** looking NE **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of wastewater treatment plant from SE corner.

Picture: 20 of 47 **Date:** 4/8/2005 **Time:** 8:40 am **Direction:** looking S **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of south side of property attached to 901 Francis Street (main office of Seven Out LLC).

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 21 of 47 **Date:** 4/8/2005 **Time:** 8:44 am **Direction:** looking E **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of 901 Francis Street property and vacant on south side of 901 Francis Street.

Picture: 22 of 47 **Date:** 4/8/2005 **Time:** 8:46 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of abandoned trailer with used engine parts on vacant lot next to 901 Francis Street. Trailer is backed up to property line.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 23 of 47 **Date:** 4/8/2005 **Time:** 8:48 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of used engine parts on the lot two lots south of 901 Francis Street at the Engine Rebuilders facility.

Picture: 24 of 47 **Date:** 4/8/2005 **Time:** 8:50 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of contact information for the 901 Francis Street location.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 25 of 47 **Date:** 4/8/2005 **Time:** 8:54 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of floor drain inside 901 Francis Street.

Picture: 26 of 47 **Date:** 4/8/2005 **Time:** 8:56 am **Direction:** looking SW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of southeast corner of open area of 901 Francis Street.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 27 of 47 **Date:** 4/8/2005 **Time:** 8:58 am **Direction:** looking W **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of south side of open area of 901 Francis Street.

Picture: 28 of 47 **Date:** 4/8/2005 **Time:** 9:00 am **Direction:** looking W **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of southwest side of open area of 901 Francis Street

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 29 of 47 **Date:** 4/8/2005 **Time:** 9:02 am **Direction:** looking NW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of south and southwest side of open area at 901 Francis Street.

Picture: 30 of 47 **Date:** 4/8/2005 **Time:** 9:04 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of interior of one of rooms of annex to 901 Francis Street.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 31 of 47 **Date:** 4/8/2005 **Time:** 9:06 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of interior of additional part of annex of 901 Francis Street.

Picture: 32 of 47 **Date:** 4/8/2005 **Time:** 9:08 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of interior of 901 Francis Street showing supplies and materials in use by EPA Removal Contractor.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 33 of 47 **Date:** 4/8/2005 **Time:** 9:10 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** Additional view of inside of 901 Francis Street, used by EPA Removal Contractor as their operation's base.

Picture: 34 of 47 **Date:** 4/8/2005 **Time:** 9:12 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** Additional view of inside of 901 Francis Street, used by EPA Removal Contractor as their operation's base.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 35 of 47 **Date:** 4/8/2005 **Time:** 9:14 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** Additional view of inside of 901 Francis Street, used by EPA Removal Contractor as their operation's base.

Picture: 36 of 47 **Date:** 4/8/2005 **Time:** 9:16 am **Direction:** looking W **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** Additional view of outside area of 901 Francis Street.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 37 of 47 **Date:** 4/8/2005 **Time:** 9:18 am **Direction:** looking W **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** Additional view of outside area of 901 Francis Street.

Picture: 38 of 47 **Date:** 4/8/2005 **Time:** 9:20 am **Direction:** NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of exterior of annex to 901 Francis Street.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 39 of 47 **Date:** 4/8/2005 **Time:** 9:22 am **Direction:** looking W **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of vegetation (uncompromised) on the east side of 901 Francis Street.

Picture: 40 of 47 **Date:** 4/8/2005 **Time:** 9:30 am **Direction:** looking **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of house and business to southwest of 901 Francis Street.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 41 of 47 **Date:** 4/8/2005 **Time:** 9:32 am **Direction:** looking N **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of house and business (Praxair) across street from 901 Francis Street.

Picture: 42 of 47 **Date:** 4/8/2005 **Time:** 9:35 am **Direction:** looking SW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of businesses to SW of 901 Francis Street.

Picture: 43 of 47 **Date:** 4/8/2005 **Time:** 9:37 am **Direction:** looking NE **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of front of 901 Francis Street.

Picture: 44 of 47 **Date:** 4/8/2005 **Time:** 9:37 am **Direction:** looking E **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of front of 901 Francis Street.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 45 of 47 **Date:** 4/8/2005 **Time:** 9: 45 am **Direction:** looking NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of nearby residence on McDonald Street.

Picture: 46 of 47 **Date:** 4/8/2005 **Time:** 9:55 am **Direction:** looking NA **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of nearby residence on Folks Street.

Seven Out LLC Photo Log
901 Francis Street, Waycross, GA 30503-2335
CERCLIS ID # GAN000407801

Picture: 47 of 47 **Date:** 4/8/2005 **Time:** 10:05 am **Direction:** looking SW **Agency:** Georgia Hazardous Waste Management Branch **Photographer:** Eddie Williams **Subject:** View of businesses to southeast of 901 Francis Street.

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1154, Atlanta, Georgia 30334
Noel Holcomb, Commissioner
Carol A Couch, Ph.D., Director
(404) 656-2833

TRIP REPORT

SITE NAME & LOCATION:

Seven Out LLC Tank
901 Francis Street
Waycross, Georgia 31501
Ware County
GAR000030007

TRIP BY:

Brett Blackwelder RB
Environmental Engineer
Georgia Environmental Protection Division,
Hazardous Waste Management Branch,
Government Facilities Unit

Edwin Williams
Advanced Geologist
Georgia Environmental Protection Division,
Hazardous Waste Management Branch,
Government Facilities Unit

DATE OF TRIP: April 7-8, 2005

PURPOSE:

This Trip Report documents a Site Inspection by Brett Blackwelder and Edwin Williams representing the Hazardous Waste Management Branch of the Georgia Environmental Protection Division (GA EPD). The purpose of this inspection was to gather information for a Preliminary Assessment (PA) of Seven Out LLC Tank in Waycross, Georgia.

BACKGROUND:

Seven Out LLC Tank is the parent company of BCX, Incorporated. The GA EPD's information for the site at 901 Francis Street in Waycross is filed under BCX, Inc. Waycross Facility. This site has the EPA Identification Number GAR000030007. The Ware County Assessor's Office lists the property at 901 Francis Street as owned by Seven Out LLC, A Florida LC Company. The address for Seven Out LLC is listed as 1859 East Adams Street, Jacksonville, Florida, 32202. The United States Environmental Protection Agency (US

EPA) refers to the site at 901 Francis Street as the Seven Out LLC Site. For consistency the site will be referred to as the Seven Out LLC Site for the remainder of this report. The GA EPD received the EPA Notification of Regulated Waste Activity (EPA Form 8700-12) from the facility on December 11, 2001. The facility notified as a used oil processor. However, GA EPD files indicate that the facility primarily accepted "non-hazardous wastewater" as identified on facility manifests.

COMMENTS:

The first visit to the site was on Thursday April 7, 2005, at approximately 2:30 pm. At the time of the visit there was steady rainfall. A windshield survey of the site was performed from the State vehicle. The site did not appear to be in use. Using a GPS (Global Positioning System) receiver the sites geographic coordinates were determined to be latitude 31 degrees 12 minutes 26.8 seconds North and longitude 82 degrees 21 minutes 49.8 seconds West. The GPS receiver indicated an elevation of 147 feet above sea level. The building at 901 Francis Street was closed and locked (See Photographs 24, 43, and 44). East of this building at 801 Francis Street is a building, which houses The Sports Shop, Inc. Mr. Bennie James owns the Sport Shop Inc. building and property. Immediately behind this building is the used oil processing plant or "tank farm" (See Photographs 1-8 and 17-19). The tank farm is separated from the building at 901 Francis Street by a combined asphalt and concrete parking area.

The area surrounding the Seven Out LLC facility is a mixed use area including commercial, industrial, and residential property (See Photographs 40-42 and 45-47). Included are The Sports Shop, Inc., NASCO Engine Rebuilding, Praxair Distribution SE (welding supplies, industrial and scientific gases, etc.), and Tri-State Technical Services (commercial laundry equipment). The nearest residential property is located at 103 Folks Street approximately 200 feet from the tank farm area (See Photograph 46). The property south of the site is owned by CSX Railroad. Four frac tanks from the site are located on CSX property (See Photographs 13-14).

The two primary areas of concern are the tank farm and the frac tanks. Stained soil has been observed outside the secondary containment in place around the tank farm (See Photograph 4) and near the frac tanks. The tank farm and the area containing the frac tanks are separated by railroad tracks and a drainage ditch (See Photographs 9-12). Drainage from the site flows into the drainage ditch, which flows west approximately 1300 feet into an unnamed creek. A resident at 1310 Alpha Street stated that the creek always had water in it and that she had never observed anyone fishing in the creek. The Probable Point of Entry (PPE) would be at the point where the drainage ditch meets the unnamed creek. This creek flows northeast for approximately 2000 feet before continuing underground by culvert. Water then flows underground in an east direction for approximately 3000 feet before exiting near the intersection of Lee Avenue and Memorial Drive (Hwy 23). Water then flows east for less than 1000 feet into the City Drainage Canal. The City Drainage Canal flows in an northeast direction for approximately 2.8 miles before joining the Satilla River. An employee of Winges Bait and Tackle located at 427 Memorial Drive stated that children sometimes fish for brim in the City Drainage Canal, however most fishing is done in the Satilla River.

Research on the history of the Seven Out LLC Tank site included visits to the Ware County Tax Assessor's office at 215 Oak Street and the Ware County Courthouse at 800 Church Street, both located in Waycross. Historical property information is taken largely from information found on Sanborn Fire Insurance Maps. The building at 901 Francis Street is shown as a Coca-Cola Bottling Co. building on a map dated March 1922. The Sanborn Map for 1930 shows additions were made to this building. The Sport Shop Inc. building is shown on the 1922 Sanborn Map as P.A. Hay Co. and described as a grocery warehouse with part of the building used for hay and feed. The site of the tank farm is shown on the 1922 Sanborn Map as having a building marked John D. Hopkins and used for storing hay and grain and in 1930 grocery was added.

Another visit to the site was made on the morning of Friday April 8, 2005. The rain had ceased and upon arrival it was discovered that contractors were working at the site. Mr. Terry Stilman, EPA On-scene Coordinator (OSC), was present at the site and Mr. Shane Raiford with the United States Coast Guard, representing EPA was also present. The contractors were pumping rainwater out of the tank farm secondary containment area.

ATTACHMENTS: Forty-Seven (47) Photographs

Title: SEVEN OUT LLC
Break: 1-8
Other: CONTENTS Vol. 1A

PAGE NO.	REFERENCE	DATE

SEVEN OUT LLC TANK
901 FRANCIS STREET
WAYCROSS, GA 31501
GAN000407811 VISUAL SITE INSPECTION
THURS 4/7/05

ARRIVED AT SITE 2:30 PM
MODERATE TO HEAVY RAIN, ~60°F

USING A GARMIN ETREX VISTA
OBTAINED LAT, LONG, ELEVATION

N 31° 12' 26.8"
W 082° 21' 49.8"
147 FEET ABOVE SEA LEVEL

SITE DOES NOT APPEAR TO
BE IN USE. BUILDING AT
901 FRANCIS IS LOCKED

TANK FARM HAS SECONDARY
CONTAINMENT IN PLACE

RAILROAD TRACKS BORDER SOUTHERN
EDGE OF PROPERTY. A DRAINAGE
DITCH RUNS PARALLEL TO THESE TRACKS
BETWEEN SITE AND TRACKS.

FLOW FROM SITE ENTERS DRAINAGE DITCH AND FLOWS WEST.

IN FRONT (N) OF TANK FARM IS A BUILDING HOUSING THE SPORTS SHOP, INC.

AN UNPAVED ROAD CONNECTS THE SITE WITH CSX RAILROAD PROPERTY SOUTH OF THE SITE. FOUR "FRAC" TANKS ALLEDGEDLY BELONGING TO SEVEN OUT ARE LOCATED ON CSX PROPERTY

THE AREA SURROUNDING THE SITE IS MIXED COMMERCIAL, RESIDENTIAL, AND INDUSTRIAL

THE NEAREST RESIDENCE IS LOCATED AT 103 FOLKS STREET.

THE DRAINAGE DITCH AT THE SITE CONTINUES WEST AND EMPTIES INTO A CREEK WHICH FLOWS IN A NORTHERN DIRECTION.

~~THE~~ A RESIDENT AT 1310 ALPHA ST STATED SHE HAS NEVER OBSERVED ANYONE FISHING IN THIS CREEK AND THAT IT ALWAYS HAS WATER IN IT.

THE CREEK FLOWS UNTIL IT GOES UNDERGROUND NEAR McDONALD AND ISABELLA STREET. CREEK APPEARS TO EXIT UNDERGROUND NEAR INTERSECTION OF LEE AVE AND MEMORIAL. CREEK THEN JOINS LARGER CREEK. FOLLOWED LARGE CREEK TO THE SATILLA RIVER. EMPLOYEE AT WINGES BAIT & (4:10 PM) TACKLE ON MEMORIAL DRIVE STATED THIS LARGER CREEK IS THE CITY DRAINAGE CANAL. EMPLOYEE STATED KIDS SOMETIMES FISH IN CANAL BUT MOST FISHING IS IN THE SATILLA. CANAL HAS BRIM, SATILLA HAS BRIM, SHELL CRACKER, CATFISH, BASS.

SEVEN OUT LLC TANK
FRI 4/8/05

VISITED TAX ASSESSORS OFFICE AND COURTHOUSE TO REVIEW RECORDS PERTAINING TO THE SITES HISTORY.

REVISITED SITE SINCE IT WAS NOT RAINING.

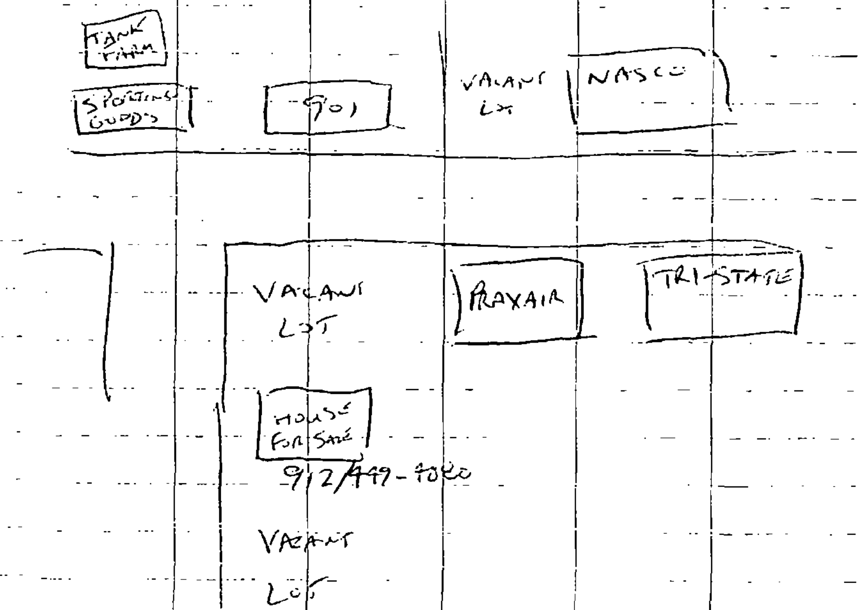
EPA CONTRACTORS WAS PRESENT PUMPING WATER FROM THE TANK FARM SECONDARY CONTAINMENT AREA. TERRY STILMAN, EPA OSC WAS PRESENT.

IMMEDIATELY WEST OF THE 901 FRANCIS BLDG. IS A VACANT LOT AND THEN NASCO ENGINE REBUILDING.

ACROSS FRANCIS STREET TO THE NORTH IS A VACANT LOT AND NORTH OF THIS LOT IS A HOUSE WHICH IS FOR SALE.

OTHER BUSINESSES IN THE AREA ARE: PRAXAIR DISTRIBUTION SE (WELDING SUPPLIES IND, MED. GASES)

TRI-STATE TECHNICAL SERVICES (COMMERCIAL LAUNDRY EQUIPMENT)



Reference 5

2005 Ware Co[illegible] Property Record Card

marcenia 04/08/2005 :04:38 AM
Acct # 11520

Owner Information

SEVEN OUT LLC A FLORIDA LC COMPANY

1859 E ADAMS STREET

JACKSONVILLE, FL 32202

General Property Information

Physical Address	901 FRANCIS ST				
Legal Description	FRANCIS ST 901 B128 LA				
Tax District	02 CITY - NOT DEV. AUTHORITY			**Homestead**	S0
Total Acres	0.87	**LL**	**GMD**		0
Zoning		**LD**		**Acc / Des**	0.0000

Topography	1.00	Water	1.00	Other	1.00
Corner	1.00	Transitional	1.00		
View	1.00	Neighborhood	1.00		1.00

Values

Improvements		165,114
Accessories		5,226
Land		21,033
Total		**191,373**
Previous		191,373
	2003	191,373
	2002	53,090
	2001	53,090

Comments: RAULERSON WADE CONSTRUCTION CO.

Sales Information

Grantee	Date	Deed Book	Plat Book	Saleprice	CS	Mkt Value	Reason
SEVEN OUT LLC A FLORIDA LC COMPANY	12/05/2002	41O 87		250,000	C1	204373	
SEVEN OUT LLC A FLORIDA LC COMPANY	05/02/2002	40D 145	A 3008	0	C1	0	FM
RAULERSON W WADE	02/22/2002	39U 208		0	C1	53090	QC

Land Information

C/S	Subrecord	Code / Description	Method	Units	Depth	From Front	Depth	Depth Factor	Unit Value	Adj Unit	Adjustment	Value
C3	1	108 COMM FF (100 FF)	Front Foot	188.00	201	0	150	1.1188	100.00	100.00	1.00	21033

Accessory Improvements (Override Value denoted by Italics)

CS	Description	Size	Units	Year	Grade	Depr	OvrD	PCom	Func	Neigh	ID Units	Calc/Ovr Val
C1	STORAGE BUILDING (D5)	30 x 100	3000	1974	0.80	0.50	0.23	1.00	1.00	0.00	1	*3706*
C1	PAVING(CONCRETE 47)	1 x 1800	1800	1974	1.00	0.50	0.23	1.00	1.00	0.00	1	*770*
C1	FENCE(CHAIN LINK 20)	6 x 0	150	1974	1.00	0.50	0.23	1.00	1.00	0.00	1	*750*

WA11-06 -009 - **2005 Ware Cou[illegible] Property Record Card** *marcenia* *04/08/2005* *:04:38 AM*
Acct # *11520*

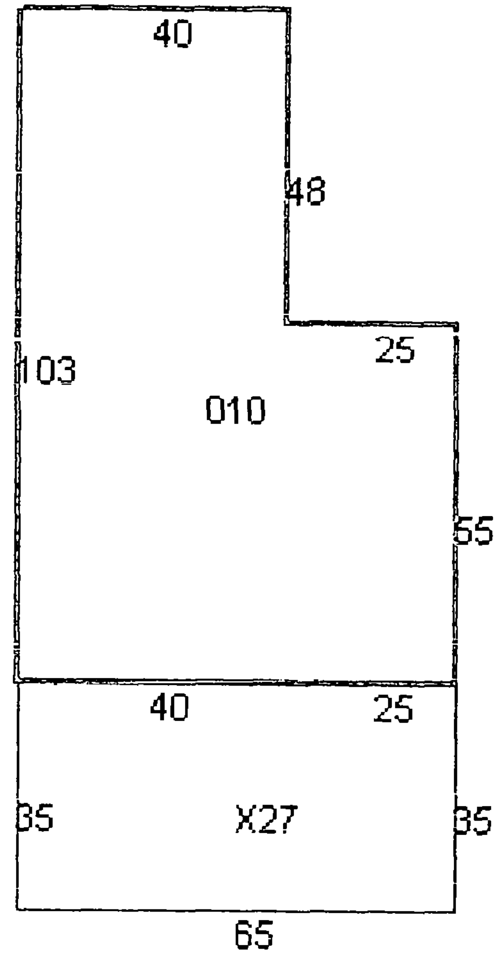
Impr Key	948	**Sty Ht**	Story Ht 1.0
Class/Strat	C1	**Area**	5495
Imp / Sect	1 1	**Perimeter**	336

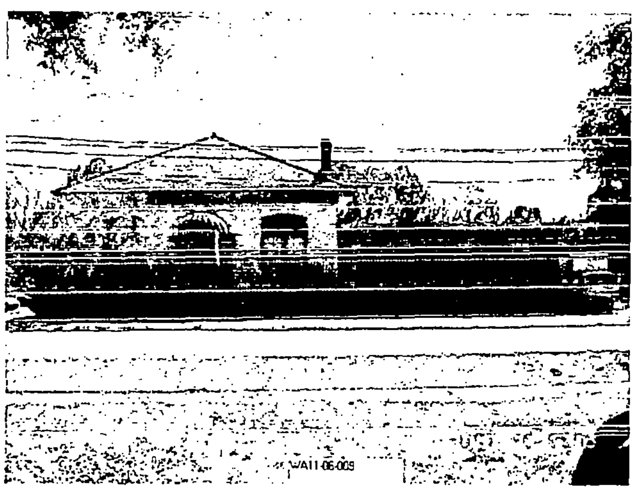
Used As	STRG WAREHOUSE
Built As	STRG WAREHOUSE
Const Type	Masonry Load Bearing Walls
Story Ht.	Story Ht 1.0
Life Exp	35
Wall Height	16

1 Fix Bath	2	**1.0 Bath/Kit**	0
2 Fix Bath	0	**1.5 Bath/Kit**	0
3 Fix Bath	1	**2.0 Bath/Kit**	0

Year Built	1912
Eff Yr Built	1957
Neighbhd Infl	0.00
Grade	0.80
Phy Dep	0.17
Ovr Dep	0.55
Econ	1.00
Func	1.00
Other Adj	1.00
% Comp	1.00

Value Summary	
RCN	300,207
Structure	85,034
Extra Features	80,080
ID Units	1
Building	165,114
Improvement	0





Commercial Extra Features

Description	**Size**	**Units**	**Year**	**Rank**	**Depr**	**OvrD**	**Neigh**	**ID Units**	**Value**	**Ovr Value**
OFFICE(X27)	35 x 65	0	1912	4	0.55	0.00	0.00	1	80080	0

Imp / Sect	1	1			
Foundation			**Floor Finish**		
Concrete Wall	1.00	3	Concrete	1.00	3
	0			0	
	0			0	
Wall			**Interior Walls**		
Bearing Wall	1.00	3	Plaster	1.00	3
	0			0	
	0			0	
Exterior Walls			**Ceiling**		
Brick	1.00	3	UNFINISHED	1.00	3
	0		UNFINISHED	0.00	3
	0			0	
Roof Frame			**Wiring**		
Wood Frame W/Decking	1.00	3	Rigid Conduit	1.00	3
	0			0	
	0			0	
Roof Cover			**Heating**		
Tile	1.00	3	No Heat	1.00	3
	0			0	
	0			0	
Floor Construction			**Lighting**		
Reinforced Concrete	1.00	3	Recessed F.F.	1.00	3
	0			0	
	0			0	

2005 Ware County Property Record Card

marcenia 04/08/2005 10:47 AM
Acct # 11521

Owner Information

SEVEN OUT LLC A FLORIDA LC COMPANY
1859 E ADAMS STREET
JACKSONVILLE, FL 32202

General Property Information

Physical Address	0 FRANCIS ST		
Legal Description	FRANCIS ST B84 L1		
Tax District	02 CITY - NOT DEV. AUTHORITY	Homestead	S0
Total Acres	0.46	LL	GMD	0
Zoning		LD	Acc / Des	0.0000

Values

Improvements	0
Accessories	0
Land	6,500
Total	**6,500**
Previous	6,500
2003	6,500
2002	6,500
2001	11,100

Topography	1.00	Water	1.00	Other	1.00
Corner	1.00	Transitional	1.00		
View	1.00	Neighborhood	1.00		1.00

Comments

Sales Information

Grantee	Date	Deed Book	Plat Book	Saleprice	CS	Mkt Value	Reason
SEVEN OUT LLC A FLORIDA LC COMPANY	12/05/2002	41O 087		0	C3	0	MP
STRINGER RONALD A	05/02/2002	40D 145	A 3008	125,000	C3	6500	MP
RAULERSON WADE	03/07/2000	36B 217		0	C3	11100	MP

Land Information

C/S	Subrecord	Code / Description	Method	Units	Depth	From Front	Depth	Depth Factor	Unit Value	Adj Unit	Adjustment	Value
C3	1	108 COMM FF (100 FF)	Front Foot	100.00	200	0	150	1.1167	100.00	100.00	1.00	11167

2005 Ware Cou'·y Property Record Card

marcenia 04/08/2005 13.17 AM
Acct # 11523

Owner Information	
SEVEN OUT LLC	
1859 E ADAMS ST	
JACKSONVILLE, FL 32202	

General Property Information

Physical Address	0 FOLKS ST				
Legal Description	FOLKS ST #3 B84 L3,4				
Tax District	02 CITY - NOT DEV. AUTHORITY			Homestead	S0
Total Acres	0.46	LL	GMD		0
Zoning		LD		Acc / Des	0.0000

Values

Improvements	0
Accessories	8,426
Land	8,375
Total	**16,801**
Previous	16,801
2003	16,801
2002	21,596
2001	21,596

Topography	1.00	Water	1.00	Other	1.00
Corner	1.00	Transitional	1.00		
View	1.00	Neighborhood	1.00		1.00

Comments ALSO PARCEL 11

Sales Information

Grantee	Date	Deed Book	Plat Book	Saleprice	CS	Mkt Value	Reason
SEVEN OUT LLC	04/03/2002	39Z 191		30,000	C1	21596	FM
BCX INC	09/08/2000	36W 133	A 42	25,000	C1	0	MP
BRYSON ANTHONY ALLEN	12/03/1997	32A 267	A 42	14,500	C1	24027	MP

Land Information

C/S	Subrecord	Code / Description	Method	Units	Depth	From Front	Depth	Depth Factor	Unit Value	Adj Unit	Adjustment	Value
C3	0	104 COMM FF (75 FF)	Front Foot	100.00	200	0	150	1.1167	75.00	75.00	1.00	8375

Accessory Improvements (Override Value denoted by Italics)

CS	Description	Size	Units	Year	Grade	Depr	OvrD	PCom	Func	Neigh	ID Units	Calc/Ovr Val
C1	PAVING(ASPHALT 46)	53 x 176	0	2002	1.00	0.95	0.80	1.00	1.00	0.00	1	*4776*
C1	PAVING(ASPHALT 46)	72 x 99	0	2002	1.00	0.95	0.80	1.00	1.00	0.00	1	*3650*

Lot 4
Block 84

Helen Buxton
Monroe Buxton

C E Hopkins
Grace Hopkins
James B. Hopkins

Waycross Bank & Trust

Book 32-A
p. 267, 268

10/2/85
Book 18B p 209

John E. Lott
bought in 10/2/85

2005 Ware Cou · Property Record Card

marcenia 04/08/2005 10:09 AM
Acct # 11530

Owner Information
SEVEN OUT LLC A FLORIDA LL COMPANY
1859 E ADAMS STREET
JACKSONVILLE, FL 32202

General Property Information					
Physical Address	903 FRANCIS ST				
Legal Description	FRANCIS ST 903 B128				
Tax District	02 CITY - NOT DEV. AUTHORITY			Homestead	S0
Total Acres	0.28	LL	GMD		0
Zoning		LD		Acc / Des	0.0000

Values	
Improvements	0
Accessories	0
Land	6,500
Total	**6,500**
Previous	6,500
2003	6,500
2002	6,500
2001	6,500

Topography	1.00	Water	1.00	Other	1.00
Corner	1.00	Transitional	1.00		
View	1.00	Neighborhood	1.00		1.00

Comments

Sales Information

Grantee	Date	Deed Book	Plat Book	Saleprice	CS	Mkt Value	Reason
SEVEN OUT LLC A FLORIDA LL COMPANY	12/05/2002	41O 087		0	C3	0	NF
STRINGER RONALD A	05/02/2002	40D 145	A 3008	0	C3	6500	MP
RAULERSON WADE	03/07/2000	36B 217		6,500	C3	6660	MP

Land Information

C/S	Subrecord	Code / Description	Method	Units	Depth	From Front	Depth	Depth Factor	Unit Value	Adj Unit	Adjustment	Value
C3	1	108 COMM FF (100 FF)	Front Foot	60.00	200	0	150	1.1167	100.00	100.00	1.00	6700

2005 Ware Cour Property Record Card

marcenia 04/08/2005 3:51 AM
Acct # 11530

Owner Information	General Property Information				Values	
SEVEN OUT LLC A FLORIDA LL COMPANY	Physical Address	903 FRANCIS ST			Improvements	0
	Legal Description	FRANCIS ST 903 B128			Accessories	0
1859 E ADAMS STREET	Tax District	02 CITY - NOT DEV. AUTHORITY	Homestead	S0	Land	6,500
	Total Acres	0.28 LL GMD		0	**Total**	**6,500**
JACKSONVILLE, FL 32202	Zoning	LD	Acc / Des	0.0000	**Previous**	6,500

Topography	1.00	Water	1.00	Other	1.00
Corner	1.00	Transitional	1.00		
View	1.00	Neighborhood	1.00		1.00

Previous	
2003	6,500
2002	6,500
2001	6,500

Comments

Sales Information

Grantee	Date	Deed Book	Plat Book	Saleprice	CS	Mkt Value	Reason
SEVEN OUT LLC A FLORIDA LL COMPANY	12/05/2002	41O 087		0	C3	0	NF
STRINGER RONALD A	05/02/2002	40D 145	A 3008	0	C3	6500	MP
RAULERSON WADE	03/07/2000	36B 217		6,500	C3	6660	MP

Land Information

C/S	Subrecord	Code / Description	Method	Units	Depth	From Front	Depth	Depth Factor	Unit Value	Adj Unit	Adjustment	Value
C3	1	108 COMM FF (100 FF)	Front Foot	60.00	200	0	150	1.1167	100.00	100.00	1.00	6700

WARE COUNTY
Georgia

Real Property

BASE INFORMATION

- Base
- Residential
- Sales
- Other Improvements

Parcel

Parcel ID: WA1106 009
Property Address: 901 FRANCIS ST
Zoning Code: Commercial
Tax District: 02 - City
Home Exempt: S0 - No Homestead Exemption
Value: $191,373.00

Ownership

Owner: SEVEN OUT LLC A FLORIDA LC COMPANY
Mailing Address: 1859 E ADAMS STREET
JACKSONVILLE FL 32202

Legal Description

FRANCIS ST 901 B128 LA

Basic Residential

No Data Available

Land

Acres: 0.87
Total Depth: 201
Front Feet: 188
Sq Feet: 37788
Lots: 0

Most Recent Sales(s)

Date	Amount	Grantee	Grantor
6/12/85	$43,000.00		
7/15/85	$53,000.00		
7/16/96	$0.00	RAULERSON W WADE	
7/29/96	$0.00	RAULERSON W WADE	WAYCROSS WARE CO DEV
2/22/02	$0.00	RAULERSON W WADE	RAULERSON W WADE
5/2/02	$0.00	SEVEN OUT LLC A FLORIDA LC COMPANY	RAULERSON W WADE
12/5/02	$250,000.00	SEVEN OUT LLC A FLORIDA LC COMPANY	SEVEN OUT LLC A FLORIDA LC COM

WARE COUNTY
Georgia

Real Property

SALES INFORMATION

- Base
- Residential
- Sales
- Other Improvements

Parcel

Parcel ID: WA1106 009

Property Address: 901 FRANCIS ST

Most Recent Sale(s)

Date	Amount	Market Val.	Grantee	Sale Class	Grantor
6/12/85	$43,000.00	$0.00		Commercial	
7/15/85	$53,000.00	$0.00		Commercial	
7/16/96	$0.00	$53,090.00	RAULERSON W WADE	Commercial	
7/29/96	$0.00	$53,090.00	RAULERSON W WADE	Commercial	WAYCROSS WARE CO DE
2/22/02	$0.00	$53,090.00	RAULERSON W WADE	Commercial	RAULERSON W WADE
5/2/02	$0.00	$0.00	SEVEN OUT LLC A FLORIDA LC COMPANY	Commercial	RAULERSON W WADE
12/5/02	$250,000.00	$0.00	SEVEN OUT LLC A FLORIDA LC COMPANY	Commercial	SEVEN OUT LLC A FLORIDA LC

WARE COUNTY
Georgia

Real Property

BASE INFORMATION

- Base
- Residential
- Sales
- Other Improvements

Parcel
Parcel ID: WA1106 020
Property Address: 903 FRANCIS ST
Zoning Code: Commercial
Tax District: 02 - City
Home Exempt: S0 - No Homestead Exemption
Value: $6,500.00

Ownership
Owner: SEVEN OUT LLC A FLORIDA LL COMPANY
Mailing Address: 1859 E ADAMS STREET
JACKSONVILLE FL 32202

Legal Description
FRANCIS ST 903 B128

Basic Residential
No Data Available

Land

Acres:	0.28
Total Depth:	200
Front Feet:	60
Sq Feet:	12000
Lots:	0

Most Recent Sales(s)

Date	Amount	Grantee	Grantor
3/7/00	$6,500.00	RAULERSON WADE	HARRELL L B
5/2/02	$0.00	STRINGER RONALD A	RAULERSON WADE
12/5/02	$0.00	SEVEN OUT LLC A FLORIDA LL COMPANY	STRINGER RONALD A

WARE COUNTY
Georgia

Real Property

BASE INFORMATION

- Base
- Residential
- Sales
- Other Improvements

Parcel

Parcel ID: WA1106 013
Property Address: 801 FRANCIS ST
Zoning Code: Commercial
Tax District: 02 - City
Home Exempt: S0 - No Homestead Exemption
Value: $48,370.00

Ownersh p

Owner: JAMES BENNIE T
Mailing Address: P O BOX 715
WAYCROSS GA 31502

Legal Description

FRANCIS ST 801 B84 L2

Basic Residential

No Data Available

Land

Acres:	0
Total Depth:	100
Front Feet:	200
Sq Feet:	0
Lots:	0

Most Recent Sales(s)

Date	Amount	Grantee	Grantor
4/23/86	$43,333.00		
8/21/02	$0.00	BENNETT T JAMES	WAYCROSS WARE COUNTY DEV AUTHORITY
1/29/03	$65,000.00	CARDEN FERRELL J	BENNETT T JAMES

Reference 6

RECORD OF TELEPHONIC CONVERSATION
HAZARDOUS WASTE MANAGEMENT PROGRAM

SEVEN OUT, LLC
1.8
Vol. 1A

DATE: April 14, 2005
TIME: 10:30 am

FILE: Seven Out LLC

SPOKE WITH: Mr. Bennie James
TITLE: Owner, The Sports Shop, Inc.
ADDRESS: 801 Francis Street
CITY: Waycross
STATE/ZIP: GA 31502

TELEPHONE NUMBER:
912/283-3406 (Store)
912/281-0187 (Cell)

SUBJECT: Property located at 801 Francis Street, Waycross, GA.

SUMMARY OF CALL:
Called Mr. James to verify ownership of property located at 801 Francis Street. Mr. James stated that he is the owner of the property and the building at this location. He stated he has owned the property for approximately 20 years. Mr. James stated that Seven Out LLC had planned to purchase his property and the closing was scheduled for July 2005. However, Mr. James continued, since the closure of the Seven Out LLC facility the sale appears to have been cancelled. Three employees work at the 801 Francis Street location.

ACTION REQUIRED:

None

SIGNATURE:

FOLLOW-UP RESPONSES/ADDITIONAL COMMENTS:

SIGNATURE:

Reference 7

REMOVAL ASSESSMENT REPORT

SEVEN OUT, LLC SITE
WAYCROSS, WARE COUNTY, GEORGIA

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 4
Atlanta, Georgia 30303

Contract No.	:	68-W-00-120
TDD No.	:	4T-04-07-A-011
Date Prepared	:	December 9, 2004
EPA Task Monitor	:	Terry Stilman
Telephone No.	:	(404) 562-8748
Prepared by	:	Tetra Tech EM Inc.
START Project Manager	:	Randy Nattis
Telephone No.	:	(404) 225-5530

1.0 INTRODUCTION

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) received Technical Direction Document (TDD) No. 4T-04-07-A-011 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W-00-120. Under this TDD, START assisted EPA in conducting removal assessment (RA) activities at the Seven Out, LLC Site, which is operating under the facility name of BCX Corporation. The facility is located in Waycross, Ware County, Georgia.

1.1 REPORT STRUCTURE

This RA Report provides a review of the objectives of the RA, discusses the field and fixed laboratory activities that were performed, and presents and discusses the fixed laboratory analytical results of tank and soil samples that were collected at the site. The report is organized as follows:

- Section 1.0 presents the RA Reports' structure and the RA objectives;
- Section 2.0 provides facility background information;
- Section 3.0 describes the field and fixed laboratory activities conducted during this RA, and presents the fixed laboratory analytical results;
- Section 4.0 presents conclusions regarding the results of the RA; and
- Section 5.0 provides a list of references.

Appendices to this report present figures (Appendix A), fixed laboratory data tables (Appendix B), tank inventory logs (Appendix C), the fixed laboratory analytical data as presented by the laboratory (Appendix D), logbook notes (Appendix E), a photographic log (Appendix F), a table of witnesses (Appendix G), and the data validation report and qualified fixed laboratory analytical data tables (Appendix H).

1.2 REMOVAL ASSESSMENT OBJECTIVES

The primary objectives of this RA were to: (1) collect information on current site conditions, including information regarding the presence and nature of contamination, (2) and to conduct RA sampling activities in support of assessing the need for a removal action at the site.

Planned RA activities included the following:

- Collect environmental samples;
- Interview the site owner and State representatives;
- Screen the site using air monitoring instruments;
- Photograph site features and sampling locations;
- Collect and prepare samples for fixed laboratory analysis;
- Prepare field sampling and chain-of-custody documentation; and
- Provide technical support for assessing the need for a removal action.

2.0 FACILITY BACKGROUND

The Seven Out site is located at 901 Francis Street in Waycross, Ware County, Georgia. Appendix A, Figure 1 presents a topographic map of the area around the facility. The facility is less than 2 years old and operates as an industrial wastewater treatment facility. The property has 37 storage/treatment tanks and 4 frac tanks with a combined capacity of over 450,000 gallons. Wastewater is treated in batch mode. The treatment process is adjusted for each batch to ensure that the effluent meets pre-treatment standards. The facility uses sodium hydroxide, aluminum sulfate, ferric acid, and sulfuric acid to remove components of the wastewater through precipitation; these chemicals are stored on site in bulk tanks. Precipitated solids are sent to a filter press, after which the pressed solids are sent to the Broadhurst Environmental landfill in Screvin, Georgia. The treated wastewater is discharged to the City of Waycross publicly owned treatment works (POTW) using the City's collection system.

The City of Waycross issued Notices of Violation and an Administrative Order to the facility due to many exceedances of the company's pre-treatment permit. The facility received eight enforcement letters between May 2003 and December 2003 from the City of Waycross. The facility voluntarily ceased accepting industrial wastewater and stopped discharging to the Waycross POTW on March 1, 2004.

The BCX plant manager informed Georgia Department of Natural Resources (GADNR) personnel that no documentation was available to demonstrate the exact contents of each tank. Some information on past customers and waste profiles were provided by GADNR to EPA, however, information on the current contents of the tanks was not available when preparing this RA report

3.0 FIELD AND FIXED LABORATORY ACTIVITIES

The Tetra Tech START team mobilized to the site on August 23, 2004, and performed field activities through the morning of August 26, 2004. Field activities focused on collecting samples from onsite storage and treatment tanks, with an emphasis on the heavier fractions and sludges that might be present inside the tanks. Appendix A, Figure 2 presents the site layout, and shows the locations of many of the tanks from which samples were collected. Appendix C presents the tank inventory logs. Appendix E presents the field logbook notes that summarize the field activities. Appendix F contains a photographic log of specific site locations and activities.

Field activities were performed in accordance with the EPA Science and Ecosystem Support Division (SESD) Region 4 Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) (Ref. 1). This guidance document specifically addresses sample types, sampling procedures, and field quality assurance and quality control samples. In addition, the Sampling and Analysis Plan prepared for this RA was also used as a guidance document when performing the RA activities (Ref. 2).

3.1 SAMPLING LOCATIONS

The tanks at the facility were labeled with designations specific to each tank. Samples collected from the tanks were named by using these tank designations, although in many cases the sample names contain additional lettering to provide further information about the sample. In particular, the letter "S" was appended to many sample names to indicate that the sample was taken from a sludge layer. In addition, the tank designated "DP-1" contained two layers from which samples were collected; the sample from the top layer was named "DP-1-S layer A", and the sample from the bottom layer was named "DP-1-S layer B." A total of 33 tank samples were collected.

Four surface soil samples were also collected for fixed laboratory analysis during the field investigation. A background soil sample was collected from a nearby private residential property located about 1,000 feet west of the site (named "SO-BG.") Because discolored soil was observed in some areas, soil samples were collected from the following locations: a drainage ditch (named "SO-DD"), the frac tank area (named "SO-FRT"), and at the south wall of the tank farm (named "SO-SW). It is believed that one of the frac tanks discharged some of its contents and was the source of the soil discoloration that can be seen in Photograph No. 10 and Photograph No. 11

Quality control samples collected in the field included one trip blank sample (named "TB-1") that was analyzed for volatile organic compounds (VOC). In addition, one tank sample (named "CT-6-S") and one soil sample (named "SO-FRT") were designated on the chains-of-custody (COC) forms as samples to be analyzed as matrix spike and matrix spike duplicate (MS and MSD) samples, in addition to their routine analyses. In addition, selected samples were used for laboratory duplicate sample analysis for some analytical parameters.

The samples were preserved, packaged, and submitted to Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia for analysis for various parameters.

3.2 FIXED LABORATORY ANALYTICAL RESULTS

Appendix D contains a compact disc that presents in electronic form the entire AES data package, including all of the analytical results and raw data. The fixed laboratory (AES) analytical data were subjected to a data validation process; Appendix H presents the data validation report and a table containing the validation-qualified data. Appendix B, Tables 1 and 2 present a summary of the qualified fixed laboratory analytical results for the soil and tank samples. These tables summarize the positive analytical results and therefore do not contain all of the analytical results presented in Appendices D and H.

The following discussion of the data presented in Tables 1 and 2 summarizes the positive results and those results that exceeded certain remediation goals. In particular, the analytical results (excluding the toxicity characteristic leaching procedure [TCLP] results) presented in Table 1 for the soil samples were compared to the EPA Region 9 Preliminary Remediation Goals (PRG) for residential and industrial soils (Ref. 3); the PRGs appropriate to each analyte are included in Table 1 for convenience. As stated in the Region 9 website (provided in Ref. 3), the Region 9 PRGs "are risk-based concentrations that are intended to assist risk assessors and others in initial screening-level evaluations of environmental measurements. The PRGs contained in the Region 9 PRG Table are generic; they are calculated without site specific information". The website also states that "PRGs should be viewed as Agency guidelines, not legally enforceable standards. They are used for site 'screening' and as initial cleanup goals, if applicable. PRGs are not *de facto* cleanup standards and should not be applied as such. However, they are helpful in providing long-term targets to use during the analysis of different remedial alternatives."

In addition, the TCLP analytical results presented in Appendix B, Tables 1 and 2 were compared to the appropriate maximum concentrations found in Table 1 of Title 40 of the Code of Federal Regulations, Part 261, Section 261.24 (40 CFR 261.24).

The surface soil analytical results presented in Appendix B, Table 1 show that measurable concentrations of TCLP lead were detected in sample SO-DD and SO-SW; the TCLP lead concentration in sample SO-DD (8.13 milligrams per liter [mg/L]) exceeded the TCLP maximum concentration standard presented in 40 CFR 261.24. Total metals were found at detectable concentrations in all four soil samples, and the background sample generally had the lowest metals concentrations among the sample set. Sample SO-SW contained total arsenic at a concentration (151 milligrams per kilogram [mg/kg]) that exceeded both the residential soil and industrial soil Region 9 PRGs. In addition, sample SO-SW contained total lead at a concentration (264 mg/kg) that exceeded the residential soil Region 9 PRG. The results for the analysis of the soil samples for volatile organic compounds (VOC) showed measurable concentrations of benzene (32 micrograms per kilogram [μg/kg]) and carbon disulfide (10 μg/kg) in sample SO-DD; these concentrations are below the associated Region 9 PRGs for residential and industrial soils. Polynuclear aromatic hydrocarbons (PAH) were found at measurable concentrations in samples SO-DD and SO-SW. The concentrations of benz(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene in sample SO-SW exceeded both the residential soil and industrial soil Region 9 PRGs for those compounds. In addition, the concentration of benzo(b)fluoranthene in sample SO-SW exceeded the residential soil Region 9 PRG for this compound. Note that the reporting limits for arsenic, benzo(a)pyrene, and dibenz(a,h)anthracene for samples SO-BG, SO-DD, and SO-FRT are above the associated Region 9 PRGs for residential and industrial soils; it is therefore possible that these samples contain these analytes at concentrations above the PRGs.

The tank analytical results presented in Appendix B, Table 2 show that measurable concentrations of TCLP metals, total metals, VOCs and semivolatile organic compounds (SVOC) were detected in many of the samples collected from the tanks and frac tanks. None of the TCLP metals results presented in Table 2 exceeded the maximum concentrations for the toxicity characteristic for these analytes provided in 40 CFR 261.24.

Notable results among the four samples that were analyzed as solid samples (samples CD-1-S, CD-3-S, SH-4-S, and SS-2-S) include the following: sample SH-4-S contained lead at a concentration of 14 mg/kg; mercury was detected (at up to 0.00982 mg/kg) in all four samples; vanadium was detected at a concentration of 41 mg/kg in sample CD-3-S; acetone was detected (at up to 74,000 μg/kg in sample SH-4-S) in three of the four samples; sample SH-4-S also contained benzene at a concentration of 2,600 μg/kg; samples CD-3-S and SS-2-S contained measurable concentrations of 2-methylnaphthalene and phenanthrene; and sample SS-2-S contained a measurable concentration of naphthalene.

Notable results among the samples analyzed as liquid samples include the following: 2-butanone, 4-methyl-2-pentanone, acetone, and benzene were detected in many of the samples (with acetone at 270,000 micrograms per liter [μg/L] in sample SH-3-S and benzene at 2,300 μg/L in sample ST-1); xylenes and toluene were detected in sample DP-1-S layer B; sample OP-4-S contained phenol at a concentration of 180,000 μg/L; and sample CT-1-S contained several SVOCs, many at the highest concentrations detected for this set of samples.

4.0 CONCLUSIONS

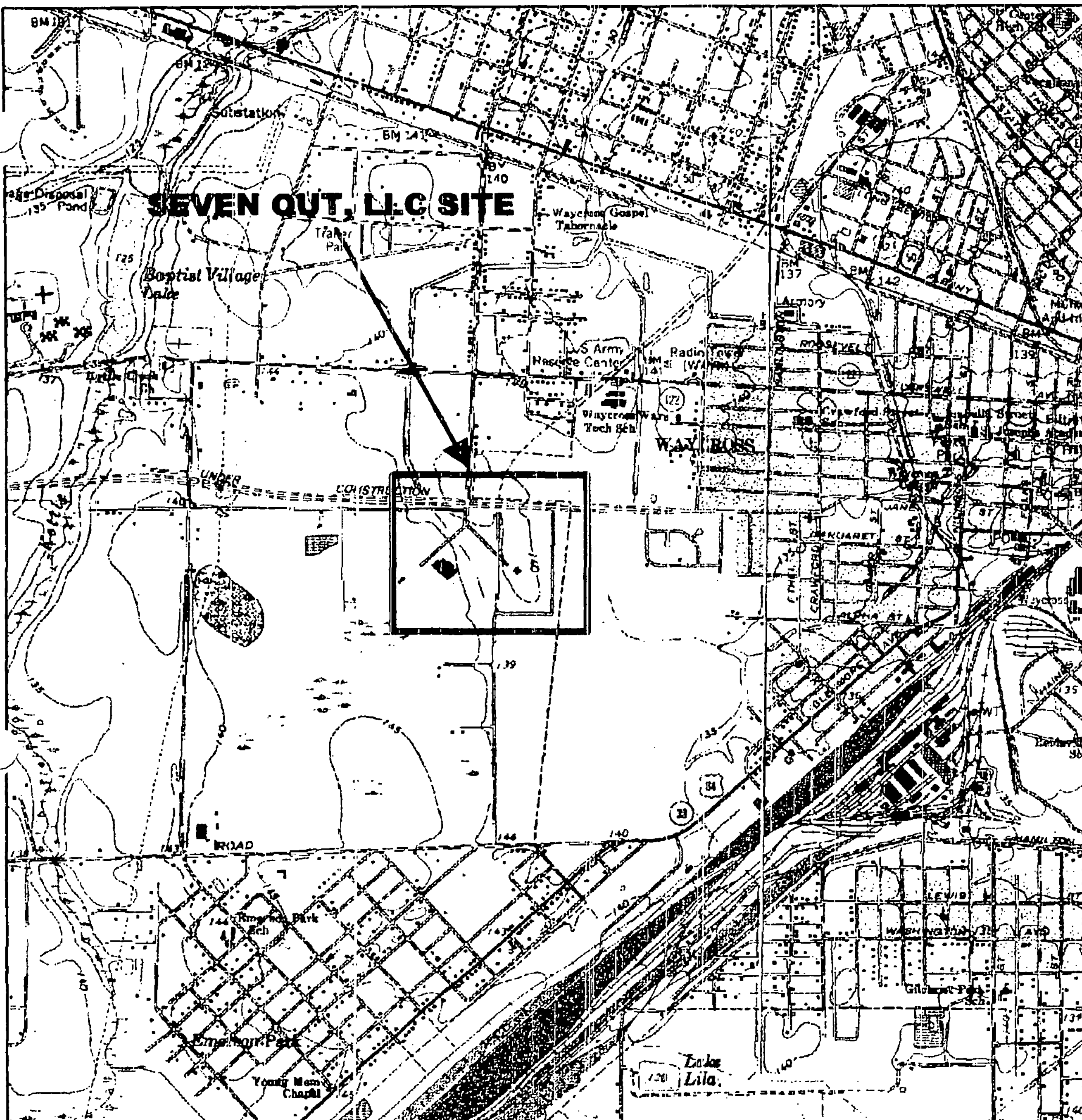
From August 23 through 26, 2004, the Tetra Tech START team collected 33 tank and frac tank samples and 4 surface soil samples from the Seven Out, LLC Site in Waycross, Ware County, Georgia. The samples were analyzed for TCLP metals, total metals, VOCs and SVOCs. According to the National Contingency Plan (NCP), 40 CFR 300.415(b)(1), at any release, regardless of whether or not the site is included on the National Priorities List (NPL), where the lead agency makes the determination that there is a threat to public health or welfare of the United States or the environment, the lead agency may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate or eliminate the release or the threat of release. Based on the NCP and the fixed laboratory analytical results presented in this report, future removal activities may be justified at this site, at the discretion of the EPA.

5.0 REFERENCES

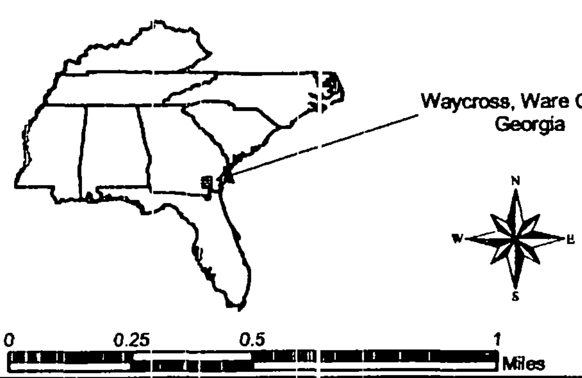
1. U.S. Environmental Protection Agency, Science and Ecosystem Support Division (SESD) Region 4 Environmental Investigation Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), May 1996, Includes 1997 Revisions.

2. Tetra Tech EM, Inc., Removal Assessment, Sampling and Analysis Plan, Seven Out, LLC Site, Waycross, Ware County, Georgia, prepared for U.S. Environmental Protection Agency, Region 4, August 19, 2004.

3. U.S. Environmental Protection Agency, Region 9, Preliminary Remediation Goals Table, October 2004. This table can be found at the following web address: http://www.epa.gov/region09/waste/sfund/prg/index.htm.



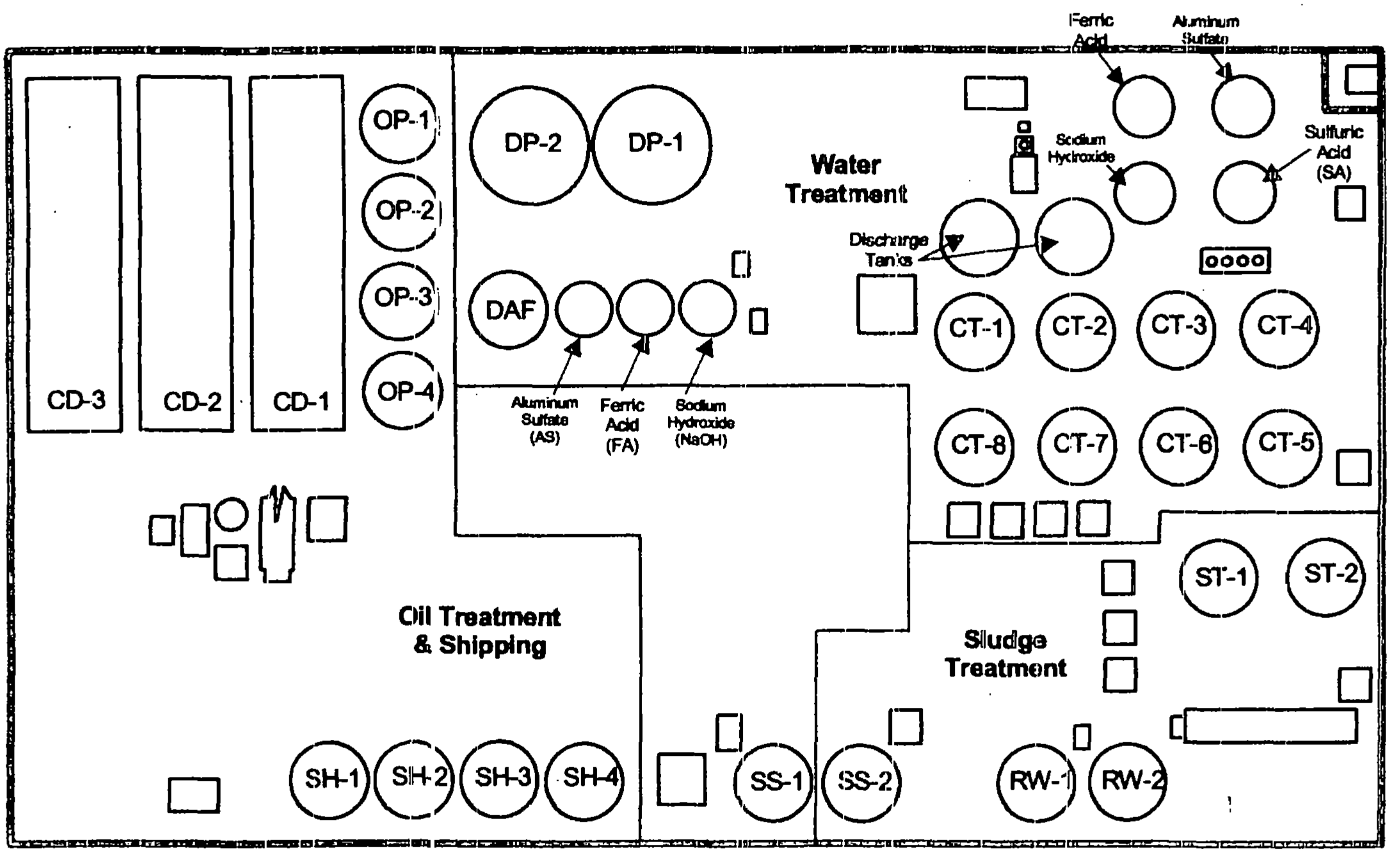
SOURCE: MODIFIED FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE: WAYCROSS EAST, GA 1993; WAYCROSS WEST, GA, 1993



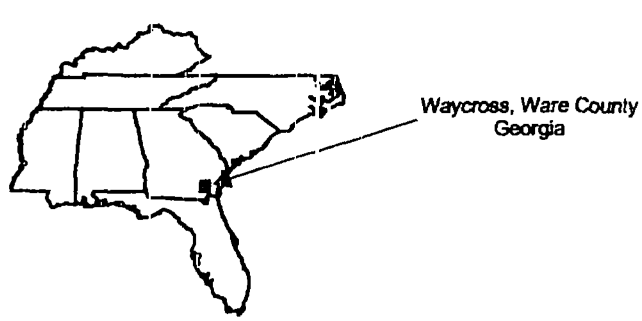
SEVEN OUT, LLC SITE
WAYCROSS, WARE COUNTY, GEORGIA
TDD No. 4T-04-07-A-011

FIGURE 1
FACILITY LOCATION MAP

Tetra Tech EM Inc.



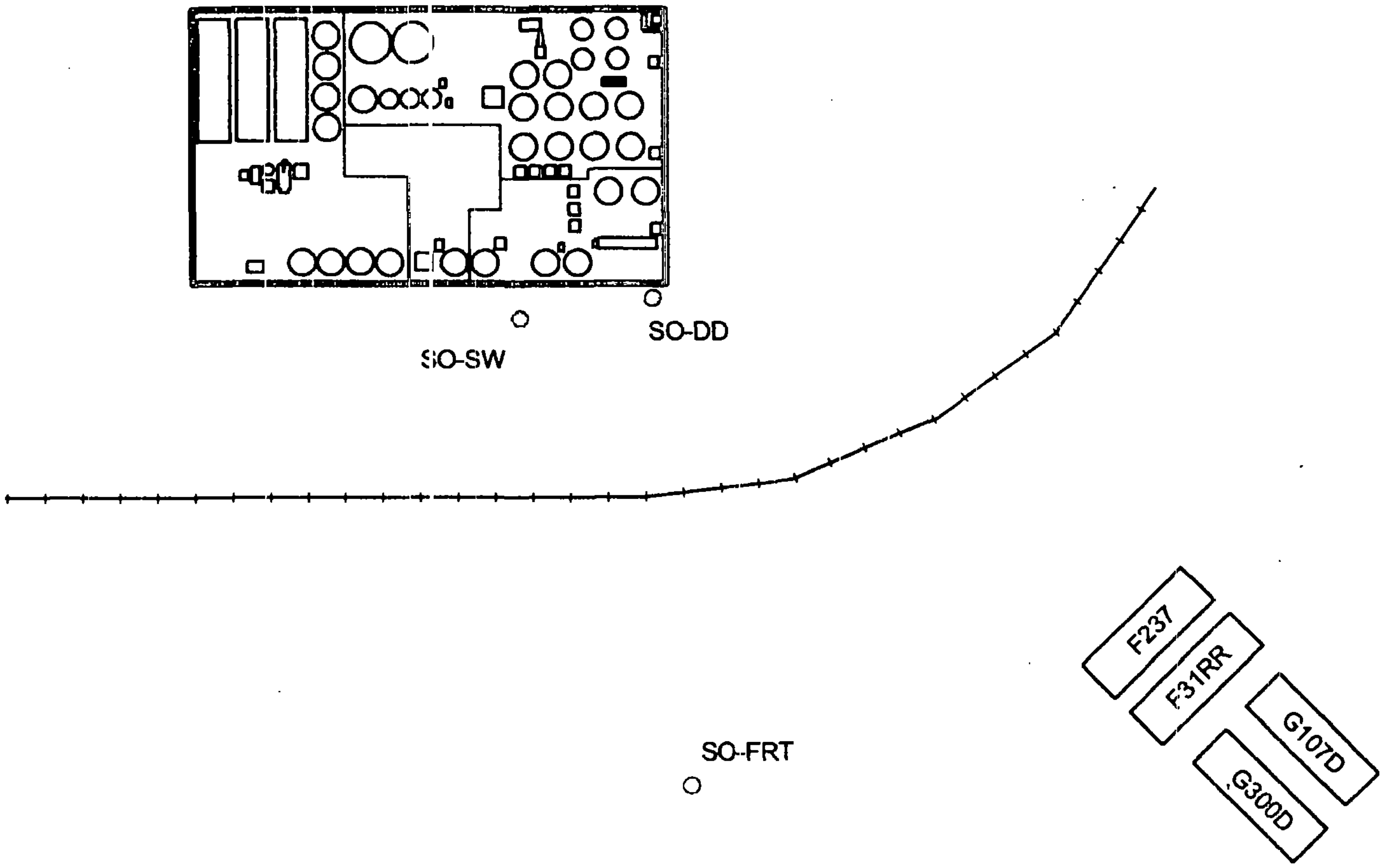
NOT TO SCALE



SEVEN OUT, LLC SITE
WAYCROSS, WARE COUNTY, GEORGIA
TDD No. 4T-04-07-A-011

FIGURE 2
FACILITY LAYOUT MAP

Tetra Tech EM Inc.



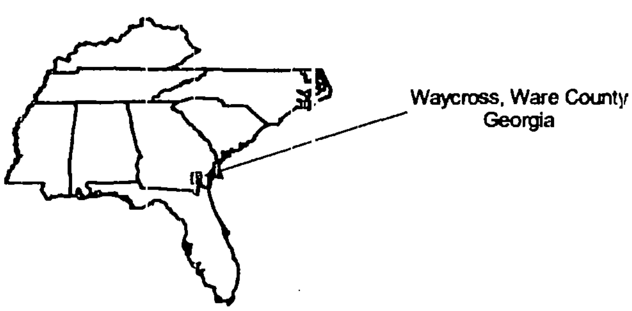
LEGENG

Soil sample

FRAC Tank

NOT TO SCALE

SO-BG is the background soil sample and was sampled off site.
The sample location is not depicted on this figure



SEVEN OUT
WAYCROSS, WARE COUNTY, GEORGIA
TDD No. 4T-04-07-A-011

FIGURE 3 - FRAC TANKS
AND SOIL SAMPLE LOCATIONS

Tetra Tech EM Inc.

APPENDIX B

TABLES

(9 Sheets)

TABLE 1
SURFACE SOIL ANALYTICAL RESULTS

PARAMETER	Region 9 PRG Residential/Industrial Soil Screening Levels	Sample Identification			
		SO-BG	SO-DD	SO-FRT	SO-SW
TCLP Metals (mg/L)					
Lead	5.0[a]	0.0500 U	8.1300	0.0500 U	0.0690
Metals (mg/kg)					
Aluminum	76,100 / 100,000	623	1860	586	2180
Arsenic	0.0616[b] / 0.251[b]	3.93 U	3.59 UJ	3.75 U	151
Barium	5,370 / 66,600	3.93 U	15.5	7.11	75.2
Calcium	NSA / NSA	234	7740	1530	3130
Chromium	211 / 448	1.96 U	7.93	1.87 U	8.69
Cobalt	903 / 1,920	1.96 U	1.8 U	1.87 U	3.46
Copper	3,130 / 40,900	1.96 U	59.2	17.8	107
Iron	23,500 / 100,000	596	4910	1080	10800
Lead	150[b] / 800	3.93 U	17.7	10.8	264
Magnesium	NSA / NSA	39.3 U	507	58.5	143
Manganese	1,760 / 19,500	4.26	74.7	8.22	169
Nickel	1,560 / 20,400	3.93 U	3.59 U	3.75 U	4.62
Potassium	NSA / NSA	78.5 U	80.3 J	74.9 U	92.1 J
Sodium	NSA / NSA	247	470	389	204
Vanadium	78.2 / 1,020	3.93 U	5.34	3.75 U	8.58
Zinc	23,500 / 100,000	4.11	32.3	8.32	518
Mercury	23.5 / 307	0.0987 U	0.0992 U	0.0994 U	0.350
Volatile Organic Compounds (µg/kg)					
Benzene	643 / 1,410	6.6 UJ	32 J	5.3 U	3.8 UJ
Carbon disulfide	355,000 / 720,000	13 UJ	10 J	11 U	7.6 UJ
Semivolatile Organic Compounds (µg/kg)					
2-Methylnaphthalene	NSA / NSA	330 U	610	330 U	330 U
Acenaphthylene	NSA / NSA	330 U	330 U	330 U	1300
Anthracene	21,900,000 / 100,000,000	330 U	330 U	330 U	1000
Benz(a)anthracene	621 / 2,110	330 U	330 UJ	330 U	***2400***
Benzo(a)pyrene	62.1 / 211	330 U	330 U	330 U	***2800***
Benzo(b)fluoranthene	621 / 2,110	330 U	330 U	330 U	**1800**
Benzo(g,h,i)perylene	NSA / NSA	330 U	330 U	330 U	2400
Benzo(k)fluoranthene	378[b] / 1,280[b]	330 U	330 U	330 U	3200
Carbazole	24,300 / 86,200	330 U	330 U	330 U	370
Chrysene	3,780[b] / 12,800[b]	330 U	330 UJ	330 U	3100
Dibenz(a,h)anthracene	62.1 / 211	330 U	330 U	330 U	***650***
Di-n-butyl phthalate	6,110,000 / 61,600,000	330 U	1100	330 U	330 U
Fluoranthene	2,290,000 / 22,000,000	330 U	330 U	330 U	4600
Indeno(1,2,3-cd)pyrene	621 / 2,110	330 U	330 U	330 U	***3000***
Phenanthrene	NSA / NSA	330 U	400	330 U	1800
Pyrene	2,320,000 / 29,100,000	330 U	330 UJ	330 U	4000

Notes:

Values in bold = value is greater than the residential PRG for soil but less than the industrial PRG for soil.

Values in bold italics = value is greater than the residential and industrial PRGs for soil

* = value exceeds the maximum concentration for the toxicity characteristic.

a = Maximum concentration for the toxicity characteristic, (see 40CFR261 24, Table 1)

b = CAL-Modified PRG value presented in the Region 9 PRG table.

BG = Background

DD = Drainage ditch

µg/kg = Micrograms per kilogram

mg/kg = Milligrams per kilogram

mg/L = Milligrams per liter

NSA = No standard available

PRG = Preliminary remedial goal

SO = Soil

SW = South wall of the tank farm

TCLP = Toxicity characteristic leaching procedure

U = Analyte was analyzed for but not detected at or above the associated value.

UJ = Analyte was analyzed for but not detected at or above the associated value, which is estimated

FRT = Frac tank area

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier								
	AS-S/ AS	CD-1-S/ CD-1	CD-2-S/ CD-2	CD-3-S/ CD-3	CT-1-S/ CT-1	CT-2-S/ CT-2	CT-3-S/ CT-3	CT-4-S/ CT-4	CT-5-S/ CT-5
TCLP Metals (mg/L)									
Chromium	0.0500 U	0.1120	0.0500 U	0.0500 U	0.4520	0.0708	0.0500 U	0.0500 U	0.0500 U
Lead	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Metals	mg/L	mg/kg	mg/L	mg/kg	mg/L	mg/L	mg/L	mg/L	mg/L
Aluminum	1.59 J	58	18 J	120	73.4 J	3.37 J	1.44 J	0.2 UJ	1.35 J
Antimony	0.0200 U	0.9800 U	0.0200 U	1.2000 U	0.0208	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Barium	0.0457 J	1.6	0.0854 J	3.7	0.135 J	0.0329 J	0.0502 J	0.0279 J	0.428 J
Cadmium	0.0050 U	0.4900 U	0.0080	0.5900 U	0.0278	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	124 J	340	377 J	130	370 J	382 J	691 J	269 J	416 J
Chromium	0.0190	0.4900 U	0.0743	0.6100	1.9200	0.1330	0.0469	0.0133	0.0413
Cobalt	0.0200 U	0.4900 U	0.0552	0.4900 U	0.0688	0.0200 U	0.0229	0.0200	0.0200 U
Copper	0.716	0.89	1.9	14	31.7	4.65	3.3	0.4	1.19
Iron	29.3	110	253	40	431	36	18.4	6.15	101
Lead	0.0200	0.9800 U	0.0173	2.6000	0.0388	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Magnesium	22.8	9.8 U	44.3	12 U	25.7	14.4	54.3	42.5	27.1
Manganese	0.968	1.3	6.95	1.2 U	6.5	1.96	2.83	0.444	2.4
Nickel	0.108	0.98 U	0.301	1.2 U	1.65	0.209	0.227	0.17	0.141
Potassium	36.0	400.0	342.0	240.0	51.5	47.0	123.0	126.0	64.0
Selenium	0.0200 U	0.9800 U	0.0200 U	1.2000 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Sodium	434	3300	3680	1700	1460	1950	3190	2620	2000
Vanadium	0.0100 U	0.9800 U	0.0100 U	41.0000	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Zinc	0.356	2.5 J	5.96	6.3 J	9.52	2.27	1.38	1.19	5.58
Mercury	0.000244	0.00981 U	0.0002 U	0.00934 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Volatile Organic Compounds	ug/L	ug/kg	ug/L	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
1,2-Dichlorobenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,4-Dichlorobenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	100 U	5000 U	250	5000 U	100 U	100 U	100 U	460	100 U
4-Methyl-2-pentanone	310	5000 U	110	5000 U	100 U	330	390	550	120
Acetone	3800	11000	11000 J	10000 U	700	1300	2200	2000	1000
Benzene	50 U	2500 U	640	2500 U	310	54	57	50 U	190
Carbon disulfide	50 U	5000 U	50 U	5000 U	140	50 U	50 U	50 U	50 U
Chloroform	50 U	2500 U	62	2500 U	50 U	50 U	50 U	50 U	50 U
Isopropylbenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
m,p-Xylene	100 U	5000 U	100 U	5000 U	100 U	100 U	100 U	100 U	100 U
Methyl tert-butyl ether	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
o-Xylene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Toluene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier								
	AS-S/ AS	CD-1-S/ CD-1	CD-2-S/ CD-2	CD-3-S/ CD-3	CT-1-S/ CT-1	CT-2-S/ CT-2	CT-3-S/ CT-3	CT-4-S/ CT-4	CT-5-S/ CT-5
Semivolatile Organic Compounds	**ug/L**	**mg/kg**	**ug/L**	**mg/kg**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1'-Biphenyl	100 U	96 U	200 U	98 U	490	100 U	100 U	100 U	500 U
2-Methylnaphthalene	100 U	96 U	1900	450	4000	120	290	100 U	1300
4-Methylphenol	410	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Bis(2-ethylhexyl)phthalate	110	96 U	880	98 UJ	2400	100 U	100 UJ	100 U	500 UJ
Diethyl phthalate	100 U	96 U	2400	98 U	420	170	370	160	500 U
Dimethyl phthalate	100 U	96 U	200 U	98 U	200 U	100 U	270	100 U	500 U
Di-n-butyl phthalate	100 U	96 U	200 U	98 U	2200	100 U	230	100 U	680
Fluorene	100 U	96 U	200 U	98 U	1200	100 U	100 U	100 U	500 U
Isophorone	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Naphthalene	100 U	96 U	1000	98 U	1000	100 U	110	100 U	500
Phenanthrene	100 U	96 U	200 U	260	1000	100 U	100 U	100 U	500 U
Phenol	100 U	96 U	11000	98 U	5900	5300	27000	40000	14000
Pyrene	100 U	96 U	200 U	98 UJ	1400	100 U	100 UJ	100 U	500 UJ

Notes:
J = The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L = Micrograms per liter
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = The analyte was not analyzed for
TB-1 = Trip blank
TCLP = Toxicity characteristic leaching procedure
U = Analyte was analyzed for but not detected at or above the associated value
UJ = Analyte was analyzed for but not detected at or above the associated value, which is estimated

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier							
	CT-6-S/ CT-6	CT-7/ CT-7	CT-8/ CT-8	DAF-S/ DAF	DP-1-S layer A/ DP-1	DP-1-S layer B/ DP-1	DP-2-S/ DP-2	F237/ F237
TCLP Metals (mg/L)								
Chromium	0.0500 U	0.0500 U	0.0655	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Lead	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0630
Metals	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Aluminum	0.2 UJ	1.16 J	3.43 J	0.2 UJ	6.62 J	92 J	0.2 UJ	1 UJ
Antimony	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.1000 U	0.0200 U	0.1000 U
Barium	0.0312 J	0.0536 J	0.0542 J	0.02 UJ	0.063 J	0.55 J	0.02 UJ	0.1 UJ
Cadmium	0.0050 U	0.0050 U	0.0088	0.0050 U	0.0050 U	0.0250 U	0.0050 U	0.0250 U
Calcium	60.8 J	730 J	573 J	21.3 J	716 J	989 J	22.1 J	7.23 J
Chromium	0.0104	0.0113	0.1330	0.0100 U	0.0387	0.1830	0.0100 U	0.0500 U
Cobalt	0.0200 U	0.0200 U	0.0506	0.0200 U	0.0315	0.1000 U	0.0200 U	0.1000 U
Copper	0.437	2.25	3.3	0.01 U	11	13.1	0.353	0.142
Iron	2.52	16.1	40.5	7.05	31.3	232	2.38	11.1
Lead	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0386	0.1070	0.0100 U	0.0500 U
Magnesium	56.5	41.2	37.3	1.99	43.7	69.8	36.2	0.902
Manganese	0.396	1.39	2.33	0.0726	2.16	4.45	0.218	0.112
Nickel	0.124	0.203	1.44	0.0338	0.203	0.326	0.0753	0.1 U
Potassium	93.1	125.0	70.5	3.4	385.0	477.0	110.0	7.2
Selenium	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.1000 U	0.0200 U	0.1000 U
Sodium	1960	3030	2080	23.3	2290	3150	1660	1450
Vanadium	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0500 U
Zinc	0.222	1.8	4.1	0.02 U	2.58	3.01	0.108	2.03
Mercury	0.0002 U	0.000443	0.0002 U	0.0002 U	0.000203	0.00029	0.0002 U	0.0002 U
Volatile Organic Compounds	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/kg**	**ug/L**
1,2-Dichlorobenzene	50 U	50 U	50 U	5 U	560	100 U	100 U	100 U
1,4-Dichlorobenzene	50 U	50 U	50 U	5 U	100 U	780	100 U	100 U
2-Butanone	440	100 U	100 U	10 U	350	970	200 J	200 U
4-Methyl-2-pentanone	290	300	400	10 U	480	200 U	200 UJ	200 U
Acetone	3000	3700	1500	20 UJ	28000	52000	7300 J	400 U
Benzene	50 U	370	82	5 U	920	1600	120 J	100 U
Carbon disulfide	91	50 U	200	5 U	100 U	550	360 J	100 U
Chloroform	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U
Isopropylbenzene	50 U	50 U	50 U	5 U	420	770	100 U	100 U
m,p-Xylene	100 U	100 U	100 U	10 U	200 U	240	200 UJ	200 U
Methyl tert-butyl ether	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U
o-Xylene	50 U	50 U	50 U	5 U	400	440	100 UJ	100 U
Toluene	50 U	50 U	50 U	5 U	100 U	130	100 UJ	100 U

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier							
	CT-6-S/ CT-6	CT-7/ CT-7	CT-8/ CT-8	DAF-S/ DAF	DP-1-S layer A/ DP-1	DP-1-S layer B/ DP-1	DP-2-S/ DP-2	F237/ F237
Semivolatile Organic Compounds	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1'-Biphenyl	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U
2-Methylnaphthalene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U
4-Methylphenol	1700	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U
Bis(2-ethylhexyl)phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U
Diethyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5700	100 U	100 U
Dimethyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	510	100 U
Di-n-butyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	12000	100 U	100 U
Fluorene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U
Isophorone	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	150
Naphthalene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U
Phenanthrene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U
Phenol	20000	48000 J	15000 J	100 U	1000 UJ	12000 J	1300	260
Pyrene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U

Notes:
J = The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L = Micrograms per liter
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = The analyte was not analyzed for
TB-1 = Trip blank
TCLP = Toxicity characteristic leaching procedure
U = Analyte was analyzed for but not detected at or above the associated value
UJ = Analyte was analyzed for but not detected at or above the associated value, which is estimated

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier								
	FA-S/ FA	G107D/ G107D	G300D/ G300D	NAOH/ NAOH	OP-4-S/ OP-4	RW-1-S/ RW-1	RW-2-S/ RW-2	SH-1-S/ SH-1	SH-2-S/ SH-2
TCLP Metals (mg/L)									
Chromium	0.0500 U	0.0500 U	0.0500 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.3020
Lead	0.0500 U	0.0500 U	0.0724	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0690
Metals	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Aluminum	0.287 J	2.22 J	1 UJ	2 UJ	2.9 J	0.795 J	0.948 J	1.48 J	400 J
Antimony	0.0200 U	0.0200 U	0.1000 U	0.2000 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Barium	0.02 UJ	0.175 J	0.1 UJ	0.2 UJ	0.0733 J	0.02 UJ	0.0221 J	0.095 J	0.0461 J
Cadmium	0.0050 U	0.0050 U	0.0250 U	0.0500 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0177
Calcium	164 J	182 J	8.73 J	528 J	420 J	381 J	770 J	473 J	360 J
Chromium	0.0100 U	0.0100 U	0.0500 U	0.1000 U	0.0253	0.0100 U	0.0100 U	0.0276	0.3430
Cobalt	0.0200 U	0.0200 U	0.1000 U	0.0200 U	0.0250	0.0200 U	0.0200 U	0.0301	0.0716
Copper	0.0388	0.13	0.05 U	0.18	0.45	0.0488	0.119	0.172	10.9
Iron	5.53	140	5.47	20.5	116	19.1	4.47	68.2	700
Lead	0.0100 U	0.0100 U	0.0500 U	0.1000 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0689
Magnesium	25.1	26.1	1.25	42.2	49.7	7.72	4.56	59.6	114
Manganese	1.36	3.09	0.123	2.77	6.42	0.343	0.411	3.87	9.71
Nickel	0.109	0.139	0.1 U	0.2 U	0.374	0.0718	0.0475	0.223	0.371
Potassium	42.1	94.1	8.3	62.3	216.0	82.3	32.4	249.0	312.0
Selenium	0.0200 U	0.0200 U	0.1000 U	0.2000 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Sodium	507	3640	1120	727	2780	1660	1550	3390	3380
Vanadium	0.0100 U	0.0100 U	0.0500 U	0.1000 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Zinc	0.111	1.38	0.7	0.425	4.05	0.38	0.766	4.67	13.8
Mercury	0.0002 U	0.0002 U	0.0016 U	0.0016 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Volatile Organic Compounds	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,2-Dichlorobenzene	50 U	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U
1,4-Dichlorobenzene	50 U	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	100 U	180	200 U	200 U	2200	440	100 U	380	220
4-Methyl-2-pentanone	100 U	100 U	200 U	850	510	340	100 U	410	420
Acetone	3700	8600	400 U	6100	51000 J	10000	1100	34000	21000
Benzene	50 U	50 U	100 U	500	1200	160	50 U	860	790
Carbon disulfide	74	50 U	100 U	770	50 U	50 U	50 U	50 U	50 U
Chloroform	50 U	50 U	100 U	100 U	93	50 U	50 U	50 U	50 U
Isopropylbenzene	50 U	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U
m,p-Xylene	100 U	100 U	200 U	200 U	100 U	100 U	100 U	100 U	100 U
Methyl tert-butyl ether	50 U	50 U	100 U	100 U	89	50 U	50 U	78	50 U
o-Xylene	50 U	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U
Toluene	50 U	50 U	100 U	100 U	50 U	50 U	50 U	50 U	54

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier								
	FA-S/ FA	G107D/ G107D	G300D/ G300D	NAOH/ NAOH	OP-4-S/ OP-4	RW-1-S/ RW-1	RW-2-S/ RW-2	SH-1-S/ SH-1	SH-2-S/ SH-2
Semivolatile Organic Compounds	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1'-Biphenyl	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U
2-Methylnaphthalene	1000 U	1000 U	100 U	1000 U	100 U	190	100 U	1000 U	1000 U
4-Methylphenol	1000 U	1000 U	100 U	3800	100 U	100 U	100 U	1000 U	1000 UJ
Bis(2-ethylhexyl)phthalate	1000 U	1000 U	100 U	1600	170	100 U	100 U	1000 UJ	1000 UJ
Diethyl phthalate	1000 U	1000 U	100 U	1000 U	320	100 U	100 U	1000 U	1000 U
Dimethyl phthalate	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U
Di-n-butyl phthalate	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1500
Fluorene	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U
Isophorone	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U
Naphthalene	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U
Phenanthrene	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U
Phenol	1000 U	30000 J	170	1000 U	180000 J	11000	770	14000	1000 UJ
Pyrene	1000 U	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 UJ	1000 UJ

Notes:
J = The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L = Micrograms per liter
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = The analyte was not analyzed for
TB-1 = Trip blank
TCLP = Toxicity characteristic leaching procedure
U = Analyte was analyzed for but not detected at or above the associated value
UJ = Analyte was analyzed for but not detected at or above the associated value, which is estimated

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier							
	SH-3-S/ SH-3	SH-4-S/ SH-4	Sodium Hydroxide/ Sodium Hydroxide	SS-1-S/ SS-1	SS-2-S/ SS-2	ST-1/ ST-1	Sulfuric Acid/ Sulfuric Acid	TB-1/ (not applicable)
TCLP Metals (mg/L)								
Chromium	0.0500 U	0.0500 U	NA	0.0500 U	0.0500 U	NA	NA	NA
Lead	0.0500 U	0.0500 U	NA	0.0500 U	0.0500 U	NA	NA	NA
Metals	mg/L	mg/kg	mg/L	mg/L	mg/kg	mg/L	mg/L	NA
Aluminum	0.746 J	63	2 UJ	63.7 J	390	268 J	3.2 J	NA
Antimony	0.0200 U	1.0000 U	0.2000 U	0.0200 U	0.9778 U	0.2000 U	0.2000 U	NA
Barium	0.0455 J	1.2	0.2 UJ	0.281 J	4.8 J	2.4 J	0.2 UJ	NA
Cadmium	0.0050 U	0.5000 U	0.0500 U	0.0064	0.4889 U	0.0806	0.0500 U	NA
Calcium	405 J	610	2.86 J	503 J	510	480 J	8.49 J	NA
Chromium	0.0292	0.5000 U	0.1000 U	0.0299	0.4889 U	6.3800	0.9310	NA
Cobalt	0.0200 U	0.5000 U	0.2000 U	0.0200 U	0.4889 U	0.2000 U	0.2000 U	NA
Copper	0.0662	13	0.1 U	1.12	18	14.4	0.1 U	NA
Iron	5.59	160	3.58	221	100	2200	20	NA
Lead	0.0100 U	14.0000	0.1000 U	0.0100 U	0.9778 U	0.4310	0.1000 U	NA
Magnesium	45.5	59	1 U	60.5	18	64.2	2.81	NA
Manganese	2.3	7.9	0.05 U	5.76	3.5	29.3	0.23	NA
Nickel	0.145	1 U	0.2 U	0.137	0.977842 U	3.43	0.738	NA
Potassium	367.0	320.0	113.0	115.0	890.0	76.3	5.0 U	NA
Selenium	0.0200 U	1.0000 U	0.2000 U	0.0200 U	0.9778 U	0.2000 U	0.7250	NA
Sodium	4170	1600	188000	2040	6800	1780	10 U	NA
Vanadium	0.0100 U	1.0000 U	0.1000 U	0.0100 U	1.9000	0.1000 U	0.1000 U	NA
Zinc	0.437	2.8 J	0.2 U	9.16	2.3 J	21	0.2 U	NA
Mercury	0.0002 U	0.00979 U	0.00218	0.0002 U	0.009823 U	0.00277	0.0057	NA
Volatile Organic Compounds	ug/L	ug/kg	NA	ug/L	ug/kg	ug/L	NA	ug/kg
1,2-Dichlorobenzene	50 U	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,4-Dichlorobenzene	50 U	2500 U	NA	50 U	2500 U	100 U	NA	5 U
2-Butanone	400	5000 U	NA	140	5000 U	200 U	NA	10 UJ
4-Methyl-2-pentanone	420	5000 U	NA	300	5000 U	200 U	NA	10 U
Acetone	270000 J	74000	NA	19000	18000	860	NA	20 UJ
Benzene	290	2600	NA	900	2500 U	2300	NA	5 U
Carbon disulfide	50 U	5000 U	NA	110	5000 U	850	NA	5 U
Chloroform	50 U	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Isopropylbenzene	50 U	2500 U	NA	50 U	2500 U	100 U	NA	5 U
m,p-Xylene	100 U	5000 U	NA	100 U	5000 U	200 U	NA	10 U
Methyl tert-butyl ether	50 U	2500 U	NA	50 U	2500 U	100 U	NA	5 U
o-Xylene	50 U	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Toluene	50 U	2500 U	NA	50 U	2500 U	100 U	NA	5 U

TABLE 2
DRUMS AND TANKS ANALYTICAL RESULTS

PARAMETERS	Sample Identification/Tank Identifier							
	SH-3-S/ SH-3	SH-4-S/ SH-4	Sodium Hydroxide/ Sodium Hydroxide	SS-1-S/ SS-1	SS-2-S/ SS-2	ST-1/ ST-1	Sulfuric Acid/ Sulfuric Acid	TB-1/ (not applicable)
Semivolatile Organic Compounds	**ug/L**	**mg/kg**	**ug/L**	**ug/L**	**mg/kg**	**ug/L**	**ug/L**	**NA**
1,1'-Biphenyl	1000 U	93 U	1000 U	1000 U	97.08738 U	1000 U	1000 U	NA
2-Methylnaphthalene	1000 U	93 U	1000 U	1000 U	440	2000	1000 U	NA
4-Methylphenol	1000 UJ	93 U	1000 U	1000 U	97.08738 U	1000 U	1000 U	NA
Bis(2-ethylhexyl)phthalate	1000 U	93 U	1000 U	1000 UJ	97.08738 U	1000 U	1100	NA
Diethyl phthalate	2100	93 U	1000 U	1000 U	97.08738 U	1000 U	1000 U	NA
Dimethyl phthalate	1000 U	93 U	1000 U	1000 U	97.08738 U	1000 U	1000 U	NA
Di-n-butyl phthalate	1000 U	93 U	1000 U	1000 U	97.08738 U	1000 U	1000 U	NA
Fluorene	1000 U	93 U	1000 U	1000 U	97.08738 U	1000 U	1000 U	NA
Isophorone	1000 U	93 U	1000 U	1000 U	97.08738 U	1000 U	1000 U	NA
Naphthalene	1000 U	93 U	1000 U	1000 U	170	1000 U	1000 U	NA
Phenanthrene	1000 U	93 U	1000 U	1000 U	140	1000 U	1000 U	NA
Phenol	40000 J	93 U	1000 U	18000	97.08738 U	1000 U	1000 U	NA
Pyrene	1000 U	93 U	1000 U	1000 UJ	97.08738 U	1000 U	1000 U	NA

Notes:
J = The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L = Micrograms per liter
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = The analyte was not analyzed for
TB-1 = Trip blank
TCLP = Toxicity characteristic leaching procedure
U = Analyte was analyzed for but not detected at or above the associated value
UJ = Analyte was analyzed for but not detected at or above the associated value, which is estimated

APPENDIX C

TANK INVENTORY LOGS

(33 Sheets)

DRUM INVENTORY LOG

Drum Number: CT-1	Sampler: A. WHITT	Time: 1605
Site Name:	Location: Tank Farm	Date: 8/23/2004
TDD #:	Weather/Temperature:	

Drum Color:									
Drum Type:	Poly-lined	Fiber	Steel	Poly	Stainless Steel	Nickel			
Lid Type:	Ring-top	Closed-top	Bungs:	Present / Missing	Ring-top:	Present \ Missing			
Drum Condition:	Meet DOT Spec.	Good	Fair	Poor	Explain:				
Drum Size:	110	85	55	42	30	16	10	5	Other
Drum Contents:	Full	3/4	2/3	1/2	1/3	1/4	<1/4	Other	
Overpacked:	No	Yes	Overpack Type:	Steel	Poly	Fiber	Overpack Size:		

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Colorless	X			13 FT
B					Brown-green		X		5 FT
C									

Field Analysis

pH 5   PID ______

CGI ______   OVA / FID ______

Other

Drum Labels / Markings

DOT ______

UN / NA ______

Mfg. Name and Address: ______

Chemical Name: ______

Additional Information: 1 FT 9 inches From Top

Hazcat Data		
Radiation	Positive *	
	Negative	MREM / HR

Hazard Category: ______

Analyst: ______

Date Performed: ______

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ______ Other Test: ______ Spilfyter Strip: ______

Comments ______

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CT-2	**Sampler:** A WHITT	**Time:** 0800
Site Name:	**Location:** Tank Farm	**Date:** 8/24/04
TDD #:	**Weather/Temperature:**	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				colorless	X			13 FT
B					Brown-green		X		5 FT
C									

Field Analysis: pH 5/ PID CGI OVA / FID Other

Drum Labels / Markings: DOT UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information: 1 FT 10 inches from top

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group: | Waste Stream:

Bulk Group Number: | Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CT-3	Sampler: A. Whitt	Time: 0830
Site Name:	Location: Tank Farm	Date: 8/24/2004
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Colorless	X			13 FT
B					Red-Brown		X		5 FT
C									

Field Analysis: pH 7 PID ___ CGI ___ OVA / FID ___ Other ___

Drum Labels / Markings: DOT ___ UN / NA ___

Mfg. Name and Address:

Chemical Name:

Additional Information: 2 Ft from Top

Hazcat Data

Radiation Positive * ___ Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal. (+ or -)	Com-bust (+ or -)
A																			
B																			
C																			

PCB Concentration ___ Other Test: ___ Spilfyter Strip: ___

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CT-4	Sampler: A White	Time: 0900
Site Name:	Location: Tank Farm	Date: 8/24/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)	Field Analysis
										pH 7 PID ___ CGI ___ OVA / FID ___ Other
A	X				colorless		X		17 FT	Drum Labels / Markings
B										DOT
C										UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information: 1FT 7 inches

Hazcat Data	Hazard Category:
Radiation Positive * ___	Analyst:
Negative MREM / HR	Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ___ Other Test: ___ Spilfyter Strip: ___

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CT-5-S	Sampler: A WHITT	Time: 0915
Site Name:	Location:	Date: 8/24/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Layer Thickness (inches)
A				X	Brown-Slime			X	1in
B	X				colorless	X			17FT
C				X	Brown		X		5FT

Field Analysis: pH 6/5 PID ____ CGI ____ OVA / FID ____ Other

Drum Labels / Markings

DOT ____

UN / NA ____

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * ____ Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: OP - 4	**Sampler:** A Wlstt	**Time:** 1100
Site Name:	**Location:**	**Date:** 8/24/04
TDD #:	**Weather/Temperature:**	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				colorless	X			
B	X			X	Brown green				4 Ft
C				X					5 inch

Field Analysis: pH 7 PID ____ CGI ____ OVA / FID ____ Other

Drum Labels / Markings: DOT ____ UN / NA ____

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * ____ Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

*If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: SH-1-S	Sampler: A VHITT	Time: 1320
Site Name:	Location: Tank Farm	Date: 8/24/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Colorless	X			All
B									
C									

Field Analysis

pH ______ PID ______

CGI ______ OVA / FID ______

Other

Drum Labels / Markings

DOT ______

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * ______

Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React* (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ______ Other Test: ______ Spilfyter Strip: ______

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: SH-2-5	Sampler: A WHITT	Time: 1350
Site Name:	Location: tank farm	Date: 8/24/04
TDD #:	Weather/Temperature:	

Drum Color:									
Drum Type:	Poly-lined	Fiber	Steel	Poly	Stainless Steel	Nickel			
Lid Type:	Ring-top	Closed-top	Bungs:	Present / Missing	Ring-top:	Present \ Missing			
Drum Condition:	Meet DOT Spec.	Good	Fair	Poor	Explain:				
Drum Size:	110	85	55	42	30	16	10	5	Other
Drum Contents:	Full	3/4	2/3	1/2	1/3	1/4	<1/4	Other	
Overpacked:	No	Yes	Overpack Type:	Steel	Poly	Fiber	Overpack Size:		

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color: use standard colors	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)	Field Analysis
										pH 4 ; PID ; CGI ; OVA / FID ; Other
										Drum Labels / Markings
A										
B										DOT
C										UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data			
Radiation	Positive *		Hazard Category:
	Negative	MREM / HR	Analyst:
			Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color: use standard colors	Clarity: Clear	Cloudy	Opaque	Water Sol: S, PS, or I	React *: Air or Water	pH: use std. unit	Hex Sol: S or I	Per: + or -	Ox: + or -	CN: + or -	Sul: + or -	PCB: + or -	Hal: + or -	Combust: + or -
A																			
B																			
C																			

PCB Concentration | Other Test: | Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: SH-3-5	Sampler: A whitt	Time: 1420
Site Name:	Location: tank farm	Date: 8/24/89
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Black			X	
B									
C									

Field Analysis: pH ____ PID ____ CGI ____ OVA / FID ____ Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group: | Waste Stream:

Bulk Group Number: | Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: 5H-4-5	**Sampler:** A Whitt	**Time:** 1510
Site Name:	**Location:** tank farm	**Date:** 8/24/04
TDD #:	**Weather/Temperature:**	

Drum Color:									
Drum Type:	Poly-lined	Fiber	Steel	Poly	Stainless Steel	Nickel			
Lid Type:	Ring-top	Closed-top	Bungs:	Present / Missing	Ring-top:	Present \ Missing			
Drum Condition:	Meet DOT Spec.	Good	Fair	Poor	Explain:				
Drum Size:	110	85	55	42	30	16	10	5	Other
Drum Contents:	Full	3/4	2/3	1/2	1/3	1/4	<1/4	Other	
Overpacked:	No	Yes	Overpack Type:	Steel	Poly	Fiber	Overpack Size:		

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)	Field Analysis
										pH 7 PID CGI OVA / FID Other
A	X				Black			X	1 in	Drum Labels / Markings
B	X				Colorless	X				DOT
C										UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data	Hazard Category:
Radiation Positive * ____ MREM / HR Negative	Analyst:
	Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

ım Number: SS-1-S	Sampler: A Whitt	Time: 1600
e Name:	Location: Tank Farm	Date: 8/24/04
D #:	Weather/Temperature:	

ım Color:

ım Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

ı Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

um Condition: Meet DOT Spec. Good Fair Poor | Explain:

um Size: 110 85 55 42 30 16 10 5 Other

um Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

ıerpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

	Physical State				Color	Clarity			Layer Thickness
	Liquid	Solid	Gel	Sludge	use standard colors	Clear	Cloudy	Opaque	(inches)
\	X				Brown			X	1"
}	X				Colorless		X		Rest [illegible]
:									

Field Analysis

pH ______ PID ______

CGI ______ OVA / FID ______

Other

Drum Labels / Markings

DOT

UN / NA

ıfg. Name and Address:

:hemical Name:

ıdditional Information:

Hazcat Data

ıadiation Positive * ______

Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color: use standard colors	Clarity: Clear	Cloudy	Opaque	Water Sol: S, PS, or I	React *: Air or Water	pH: use std. unit	Hex Sol: S or I	Per: + or -	Ox: + or -	CN: + or -	Sul: + or -	PCB: + or -	Hal: + or -	Combust: + or -
A																			
B																			
C																			

PCB Concentration ______ Other Test: ______ Spilfyter Strip: ______

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CS-2	Sampler: A White	Time: 1720
Site Name:	Location: Tank farm	Date: 8/24/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Black			X	
B									
C									

Field Analysis

pH N/A PID

CGI OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group: | Waste Stream:

Bulk Group Number: | Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: RW-2	Sampler: A Whitt	Time: 1800
Site Name:	Location: Tank Farm	Date: 8/24/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined   Fiber   Steel   Poly   Stainless Steel   Nickel

Lid Type: Ring-top   Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec.   Good   Fair   Poor | Explain:

Drum Size: 110   85   55   42   30   16   10   5   Other

Drum Contents: Full   3/4   2/3   1/2   1/3   1/4   <1/4   Other

Overpacked: No   Yes | Overpack Type: Steel   Poly   Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				colorless		X		
B									
C									

Field Analysis: pH 8   PID ____   CGI ____   OVA / FID ____   Other

Drum Labels / Markings: DOT ____   UN / NA ____

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation   Positive *   Negative   ____ MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration ____   Other Test: ____   Spilfyter Strip: ____

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: DP-1	**Sampler:** A White	**Time:** 1815
Site Name:	**Location:** Tank Farm	**Date:** 5/24/04
TDD #:	**Weather/Temperature:**	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				White		X		22 FT
B	X				Black			X	2 FT
C									

Field Analysis

pH 7/7 PID

CGI OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive *

Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group: | Waste Stream:

Bulk Group Number: | Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: DP-2	Sampler: A WHITT	Time: 1850
Site Name:	Location: Tank Farm	Date: 8/24/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Black			X	
B									
C									

Field Analysis

pH 9 PID

CGI OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CD-1-5	Sampler: A White	Time: 1020
Site Name:	Location: Tank Farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A									
B									
C									

Field Analysis

pH 4 PID

CGI OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information: Crust on top

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CD-3	Sampler: A Witt	Time: 1040
Site Name:	Location: Tank farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				BLACK			X	1/2 inch
B	X				AMBER		X		Rest of tank
C									

Field Analysis: pH 9 PID ____ CGI ____ OVA / FID ____ Other

Drum Labels / Markings

DOT ____

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

1/2 inch oil layer on top

Hazcat Data

Radiation Positive * ____

Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group: | Waste Stream:

Bulk Group Number: | Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: D-2	**Sampler:** A Whitt	**Time:** 1100
Site Name:	**Location:** Tank Farm	**Date:** 8/25/04 *
TDD #:	**Weather/Temperature:** original log lost. Recreated on Nov 22nd by Randy Nickles (from mem.	

Drum Color:									
Drum Type:	Poly-lined	Fiber	Steel	Poly	Stainless Steel	Nickel			
Lid Type:	Ring-top	Closed-top	Bungs:	Present / Missing	Ring-top:	Present \ Missing			
Drum Condition:	Meet DOT Spec.	Good	Fair	Poor	Explain:				
Drum Size:	110	85	55	42	30	16	10	5	Other
Drum Contents:	Full	3/4	2/3	1/2	1/3	1/4	<1/4	Other	
Overpacked:	No	Yes	Overpack Type:	Steel	Poly	Fiber	Overpack Size:		

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A									
B									
C									

Field Analysis

pH ______ PID ______

CGI ______ OVA / FID ______

Other

Drum Labels / Markings

DOT ______

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

1/2 inch oil layer on top

Hazcat Data

Radiation Positive * ______

Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration ______ Other Test: ______ Spilfyter Strip: ______

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: DAF-5	Sampler: A White	Time: 1240
Site Name:	Location: Tante Farms	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Colorless	X			
B									
C									

Field Analysis: pH 7 PID ______ CGI ______ OVA / FID ______ Other

Drum Labels / Markings: DOT ______ UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration ______ Other Test: ______ Spilfyter Strip: ______

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: Alum Sulfate (AS)	Sampler: A White	Time: 1300
Site Name:	Location: Tenth Farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Colorless	X			
B									
C									

Field Analysis

pH 8 PID

CGI OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com-bust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group: | Waste Stream:

Bulk Group Number: | Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: Feric Acid (FA)	Sampler: A Witt	Time: 1315
Site Name:	Location: tank farm	Date: 08/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Black		X		
B									
C									

Field Analysis: pH 6 PID CGI OVA / FID Other

Drum Labels / Markings: DOT UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data	
Radiation Positive * Negative MREM / HR	Hazard Category:
	Analyst:
	Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: NA OH	Sampler: A white	Time: 1330
Site Name:	Location: Tank Farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:									
Drum Type:	Poly-lined	Fiber	Steel	Poly	Stainless Steel	Nickel			
Lid Type:	Ring-top	Closed-top	Bungs:	Present / Missing	Ring-top:	Present \ Missing			
Drum Condition:	Meet DOT Spec.	Good	Fair	Poor	Explain:				
Drum Size:	110	85	55	42	30	16	10	5	Other
Drum Contents:	Full	3/4	2/3	1/2	1/3	1/4	<1/4	Other	
Overpacked:	No	Yes	Overpack Type:	Steel	Poly	Fiber	Overpack Size:		

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Black		X		
B									
C									

Field Analysis

pH 8   PID

CGI   OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive *   Negative   MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration   Other Test: Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: F, 1RR	Sampler: A White	Time: 1530
Site Name:	Location: Frac tank	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other MT

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color	Clarity: Clear	Cloudy	Opaque	Layer Thickness	Field Analysis
					use standard colors				(inches)	pH ___ PID ___ CGI ___ OVA / FID ___ Other
										Drum Labels / Markings
A										
B										DOT
C										UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information: Could not open - Empty

Hazcat Data		
Radiation	Positive *	
	Negative	MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color	Clarity: Clear	Cloudy	Opaque	Water Sol	React *	pH	Hex Sol	Per	Ox	CN	Sul	PCB	Hal	Combust
					use standard colors				S, PS, or I	Air or Water	use std. unit	S or I	+ or -	+ or -	+ or -	+ or -	+ or -	+ or -	+ or -
A																			
B																			
C																			

PCB Concentration ______ Other Test: ______ Spilfyter Strip: ______

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: F 237	Sampler: A white	Time: 1535
Site Name:	Location: Frac tank	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Black purple		X	X	
B									
C									

Field Analysis

pH 10 PID

CGI OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React* (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: G300D	Sampler: A White	Time: 1610
Site Name:	Location: Frac tanks	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Red		X		
B									
C									

Field Analysis

pH 10 PID

CGI OVA / FID

Other

Drum Labels / Markings

DOT

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

1 inch of Bacteria

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

.um Number: RW-1	Sampler: A White	Time: 0900
Site Name:	Location: Tank Farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Brown		X		
B									
C									

Field Analysis

pH 7 PID ____

CGI ____ OVA / FID ____

Other

Drum Labels / Markings

DOT ____

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * ____

Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: G107D	Sampler: A White	Time: 1630
Site Name:	Location: Frac tanks	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)	Field Analysis
										pH 7 PID
										CGI OVA / FID
										Other
A	X				Black			X	1 ft	Drum Labels / Markings
B	X				Brown		X			DOT
C										UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data	Hazard Category:
Radiation Positive *	Analyst:
Negative MREM / HR	Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: sulfuric Acid (SA)	Sampler: A White	Time: 1345
Site Name:	Location: Tank farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A									
B									
C									

Field Analysis: pH 0 PID ____ CGI ____ OVA / FID ____ Other

Drum Labels / Markings: DOT ____ UN / NA ____

Mfg. Name and Address:

Chemical Name:

Additional Information: NFPA = 0 3 2

Hazcat Data

Radiation Positive * ____ Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

CORRECTION MADE 11/16/04 (JS)

Drum Number: NA OH → SODIUM HYDROXIDE	Sampler: A White	Time: 1430
Site Name:	Location: tank farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				colorless	X			
B									
C									

Field Analysis

pH ______ PID ______

CGI ______ OVA / FID ______

Other

Drum Labels / Markings

DOT ______

UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

NFPA 0 3 2

Hazcat Data

Radiation Positive * ______

Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration ______ Other Test: ______ Spilfyter Strip: ______

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CT - 7	**Sampler:** A W	**Time:** 1500
Site Name:	**Location:** Tank farm	**Date:** 8/25/04
TDD #:	**Weather/Temperature:**	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Brown		X		
B									
C									

Field Analysis: pH 6 PID ___ CGI ___ OVA / FID ___ Other

Drum Labels / Markings: DOT ___ UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information: 2 ft 6 inches from top of tank

Hazcat Data

Radiation Positive * ___ Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ___ Other Test: ___ Spilfyter Strip:

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CT-8	Sampler: A White	Time: 1830
Site Name:	Location: tank farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Layer Thickness (inches)
A	/				Brown		X		
B									
C									

Field Analysis: pH 5 PID ____ CGI ____ OVA / FID ____ Other

Drum Labels / Markings: DOT ____ UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information: 2 ft from top of tank

Hazcat Data

Radiation Positive * ____ Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group:	Waste Stream:
Bulk Group Number:	Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: ST-1	Sampler: A Wiatt	Time: 1845
Site Name:	Location: Tank farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A	X				Colorless	X			
B	X				Brown		X		2 Ft
C									

Field Analysis: pH 1/1 PID ____ CGI ____ OVA / FID ____ Other

Drum Labels / Markings: DOT ____ UN / NA ____

Mfg. Name and Address:

Chemical Name:

Additional Information:

Hazcat Data

Radiation Positive * ____ Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Combust (+ or -)
A																			
B																			
C																			

PCB Concentration ____ Other Test: ____ Spilfyter Strip: ____

Comments

Bulk Group: | Waste Stream:

Bulk Group Number: | Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

DRUM INVENTORY LOG

Drum Number: CT-6	Sampler: A White	Time: 1730
Site Name:	Location: tank farm	Date: 8/25/04
TDD #:	Weather/Temperature:	

Drum Color:

Drum Type: Poly-lined Fiber Steel Poly Stainless Steel Nickel

Lid Type: Ring-top Closed-top | Bungs: Present / Missing | Ring-top: Present \ Missing

Drum Condition: Meet DOT Spec. Good Fair Poor | Explain:

Drum Size: 110 85 55 42 30 16 10 5 Other

Drum Contents: Full 3/4 2/3 1/2 1/3 1/4 <1/4 Other

Overpacked: No Yes | Overpack Type: Steel Poly Fiber | Overpack Size:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Layer Thickness (inches)
A									
B									
C									

Field Analysis: pH 9 PID CGI OVA / FID Other

Drum Labels / Markings: DOT UN / NA

Mfg. Name and Address:

Chemical Name:

Additional Information:

2 ft from the top (MS/MSD)

Hazcat Data

Radiation Positive * Negative MREM / HR

Hazard Category:

Analyst:

Date Performed:

Layers	Physical State: Liquid	Solid	Gel	Sludge	Color (use standard colors)	Clarity: Clear	Cloudy	Opaque	Water Sol (S, PS, or I)	React * (Air or Water)	pH (use std. unit)	Hex Sol (S or I)	Per (+ or -)	Ox (+ or -)	CN (+ or -)	Sul (+ or -)	PCB (+ or -)	Hal (+ or -)	Com bust (+ or -)
A																			
B																			
C																			

PCB Concentration Other Test: Spilfyter Strip:

Comments

Bulk Group: Waste Stream:

Bulk Group Number: Waste Stream Number:

* If material is Positive for radioactivity or reactivity, perform no further tests.

APPENDIX E

LOGBOOK NOTES

(9 Sheets)

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

HORIZONTAL LINE

All-Weather Notebook

No. 391

SEVEN-OUT LLC WAYCROSS GA
(BCX CORP.)

4 5/8" x 7" - 48 Numbered Pages

CONTENTS

PAGE	REFERENCE	DATE
	PHONE #S.	
	T. STILLMAN m-561-512-4122	8748
	F. DUNN m-678 773-0792	
	WHITT 678 580-1750	
	MITCHELL 678 687-1965	
	BLYCER 404 667-7111	
	NATTIS 404 808-2624	
	HOTEL: 912 285-5515	
	ADDRESS: 4150 BRUNSWICK HWY.	
	AES LAB. 770 457-8171 ALLISON CANTRELL	
	A&S RENTAL 229-382-5179 BILL	

MON. 8/23/04 SEVEN OHM LLC SITE

0800 - CONTINUED EQUIPMENT LOAD OUT.

0845 - DEPARTED START OFFICE (A. WHITT J. MITCHELL)

0945 - START REP. R. NATTIS PICKED UP ALONG THE WAY TO SITE.

1345 - ARRIVED O/S.

1415 - PREPARING TO DO PERIMETER AIR MONITORING w/ TVA 1000 + HCN METER

1500 - AIR READINGS AT CT-1/8 TANKS ARE BACKGROUND.

1505 - OSC T. STILLMAN O/S + GADNR HAZ WASTE DIVISION REP. FRED DUNN O/S.

1605 CT-1 TANK SAMPLED - INVENTORY LOG SHEET USED TO DOCUMENT INFO (PH/PHASES/VOLUME ETC.)

1700 RAIN STOPS WORK TEMPORARILY A+S RENTAL O/S WITH MANLIFT AND LADDERS.

1730 40' EXTENSION LADDER IS TESTED TO SEE IF ACCESS CAN BE MADE TO TANKS DP-1/4.

1800 LADDER USE ON THE 35' TANKS DOES NOT APPEAR GOOD.

1830 DEVELOPING PLAN FOR GETTING THE MANLIFT INSIDE TANK FARM.

1900 EQUIPMENT IS SECURED INSIDE
THE ELECTRICAL SWITCH ROOM
O/S. BASIC SUPPORT ITEMS ARE
TO BE KEPT THERE OVERNIGHT.
PLAN IS MADE FOR A RAMP
SYSTEM OVER THE SECONDARY
CONTAINMENT WALL USING
LUMBER CONCRETE BLOCKS +
HEAVY DUTY CAR RAMPS.
CREW DEPARTS SITE

WX: HOT HUMID + OVERCAST/ SHOWERS

TUES. 8/24/04

0730 START PERSONNEL O/S.

0800 R. NATTS + A. WHITT TO RESUME SAMPLING OF CT TANKS.
MITCHELL GOES TO LOWES FOR RAMP SUPPLIES. CT-2 SAMPLED-PHOTOS

0830 CT-3 SAMPLED

0845 MITCHELL BACK O/S.

0900 CT-4 SAMPLED

0915 CT-5 SAMPLED.

1000 MANLIFT DRIVEN INTO THE TANK FARM AREA.

1045 TANK SAMPLING OF OP 1-4 TANKS PLANNED. OP-4 HAS CLOSEST ACCESS.

1100 OP-4 SAMPLED.

1130 OP-2 & 3 ARE INACCESSABLE DUE TO PIPE RUNS AND VENT LOCATION THAT PREVENT SAFE USE OF SCAFOLD SECTIONS.

1200 LUNCH BREAK

1320 SH-1-S SAMPLE COLLECTED

1350 SH-2-S SAMPLE COLLECTED.
OSC STILLMAN IDENTIFIES SOIL SAMPLE LOCATIONS AROUND THE PROPERTY.
4 SAMPLES PLANNED + 1 OUTFALL
1- ADJACENT 1- NEAR FRAC TANKS & BKG.

1420 SH-3-S SAMPLED WITH BAILER.
1510 SH-4-S SAMPLE COLLECTED
1600 SS-1-S SAMPLE COLLECTED.
1615 RAIN/LIGHTNING STOPS WORK
TEMPORARILY.
1720 SS-2 SAMPLE COLLECTED
1800 RW-2 SAMPLE COLLECTED
1815 DP-1 SAMPLE COLLECTED - TWO
PHASES A (TOP) 22' WHITE
~~1850~~ Jm B (BOTTOM) 2' BLACK
BESS BLYLER O/S - 1700
1850 DP-2 SAMPLE COLLECTED
1900 COOLERS WITH SAMPLES AND
GLASSWARE ARE LOADED INTO
THE VAN. SITE ACTIVITIES
TO RESUME AT 0800.
1930 START + GA DNR DEPART SITE.

8-24-04

WX: HOT, HUMID
CHANCE OF T. STORMS

WED 8/25/04

0800 START PERSONNEL O/S. GADNR O/S
EQUIPMENT SET-UP AND RELOCATING
OF THE MANLIFT OUTSIDE SECONDARY
CONTAINMENT.

0900 RW-1 SAMPLE COLLECTED

0930 CD2-S SAMPLE COLLECTED — BESS BEASLEY
IS WORKING ON SAMPLE MANAGEMENT
ACTIVITIES. J. MITCHELL MAKES SUPPLY
RUN FOR BAGS (1-GAL + 30GAL) COOLER,
PLASTIC PIPE CUTTER, ICE.

1020 CD-1-S SAMPLE COLLECTED.

1040 CD-3 SAMPLE COLLECTED.

1100 GADNR REP. FRED DUNN DEPARTS
SITE: GADNR REP + J. MITCHELL
TALKED WITH MR. BILLY E. OGLESBY
ABOUT USING HIS PROPERTY FOR
A BACKGROUND SAMPLE. HIS PROPERTY
IS 1017 GEORIA ST.

1115 LUNCH BREAK

1200 BACK O/S.

1240 PAF-5 SAMPLE COLLECTED.

1300 ALUM SULFATE (AS) SAMPLE COLLECTED.

1315 FERRIC ACID (FA) SAMPLE COLLECTED.

1330 NAOH SAMPLE COLLECTED

1345 Sodium Hydroxide & Sulfuric Acid
Sample Collected.

1526 Trip Blank sample processed.
1630 G107D SAMPLE COLLECTED
1432 – NaOH SAMPLE COLLECTED
SODIUM HYDROXIDE TANK IS
SLOWLY DRIPPING. pH AROUND
STANDING H_2O INSIDE CONTAINMENT
IS 13 w/ pH PAPER.
1530 FRAC TANK SAMPLING
CONDUCTED. FSIRR TOP
WAS SEALED SHUT, ACCESS
WITH ROPE ONLY CONFIRMED
TANK WAS EMPTY.
1745 SOIL SAMPLING ACTIVITIES
INITIATED AT SOUTH WALL OF
TANK FARM/ DRAINAGE DITCH
AND FRAC TANK AREA.
1845 S1-1 SAMPLE COLLECTED.
1900 SAMPLE MANAGEMENT
ACTIVITIES AND LOADING
THE VAN WITH COLLECTED
SAMPLES.
1935 DEPARTED SITE FOR THE
DAY.

8/25/04

8

THURS. 8/26/04

0800 STAFF MEMBERS O/S.

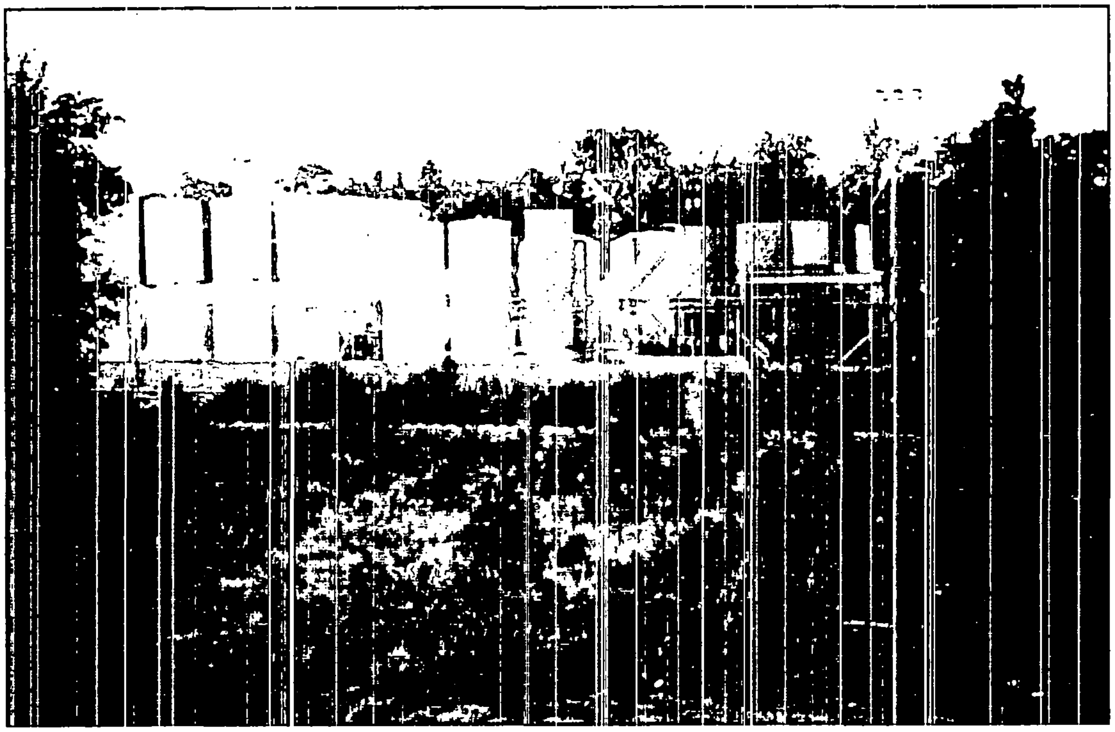
0815 SITE CLEAN UP RESUMES FROM YESTERDAY. SLUDGE JUGS BEING CUT INTO SMALL SECTIONS FOR PLACEMENT IN GARBAGE BAGS.

0840 MITCHELL COLLECTS BACKGROUND SOIL SAMPLE FROM MR. OGLEBAY'S OPEN PROPERTY. SAMPLE LOCATION WAS NEAR THE INTERSECTION OF HAMILTON ST. AND SEWELL ST.

0900 RE-ICING OF SAMPLES, DOUBLE CHECKING C-O-C AGAINST THE COOLER CONTENTS UNDERWAY.

1015 INFORMED PLANT MGR MR. DOMARO OF OUR WRAP-UP & TURNED OVER HIS SPLIT SAMPLES.

1045 FINAL LOAD OUT OF EQUIPMENT AND SAMPLES. DEPARTED SITE. ALL SAMPLES WILL BE HAND DELIVERED TO AES LABS THIS AFTERNOON.



OFFICIAL PHOTOGRAPH NO. 1
U.S. ENVIRONMENTAL PROTECTION AGENCY

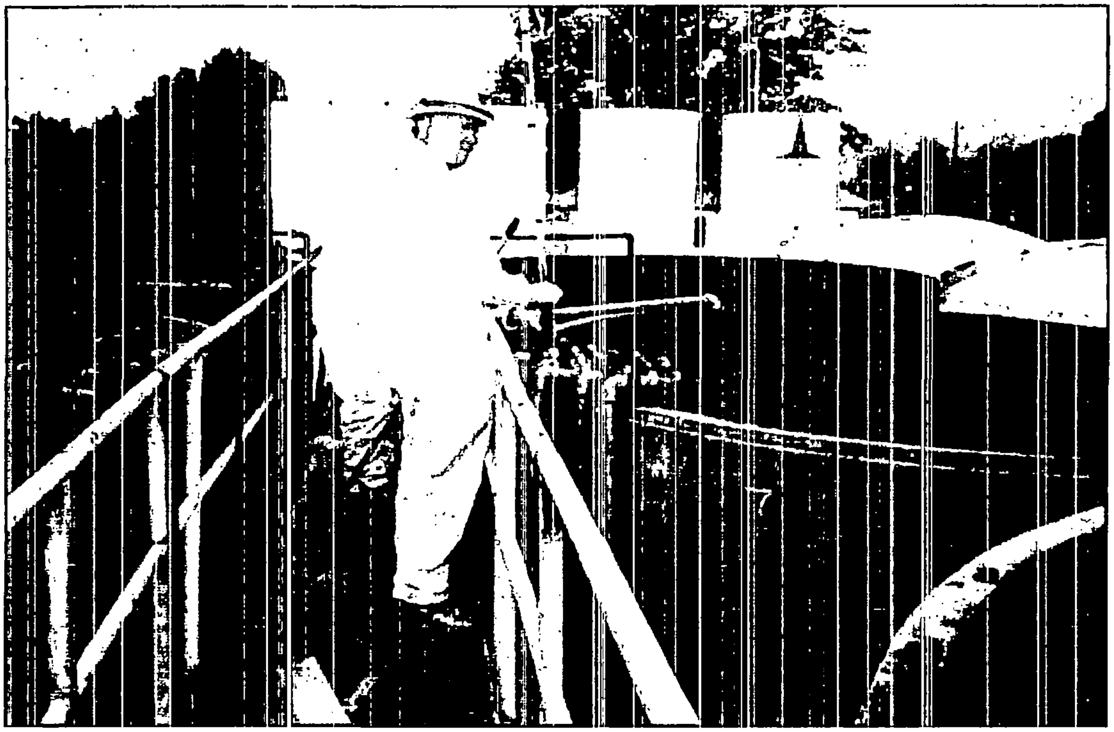
Subject: View of the facility from the frac tanks.

Site: Seven Out, LLC
Waycross, Ware County, Georgia

Date: August 25, 2004 **Orientation:** North

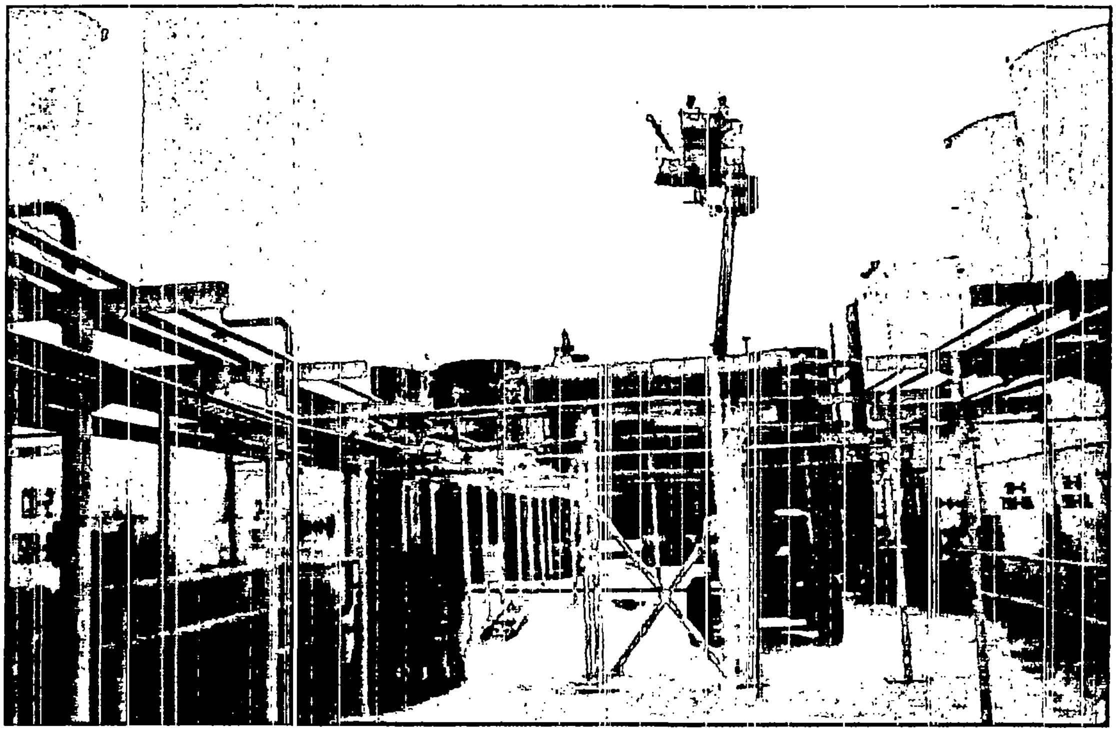
Photographer: John Mitchell,
Tetra Tech EM, Inc.

Witness: Randy Nattis,
Tetra Tech EM, Inc.



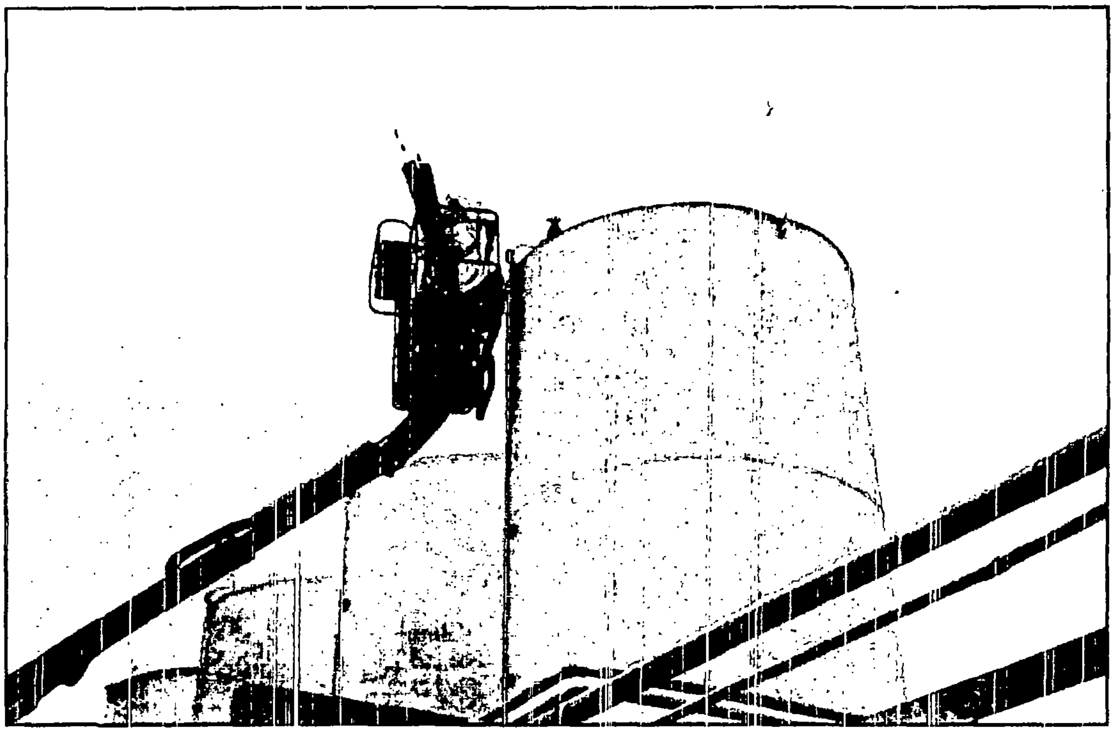
OFFICIAL PHOTOGRAPH NO. 2
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	Sampling of CT-6 tank with sludge judge.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 25, 2004	**Orientation:**	East
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.



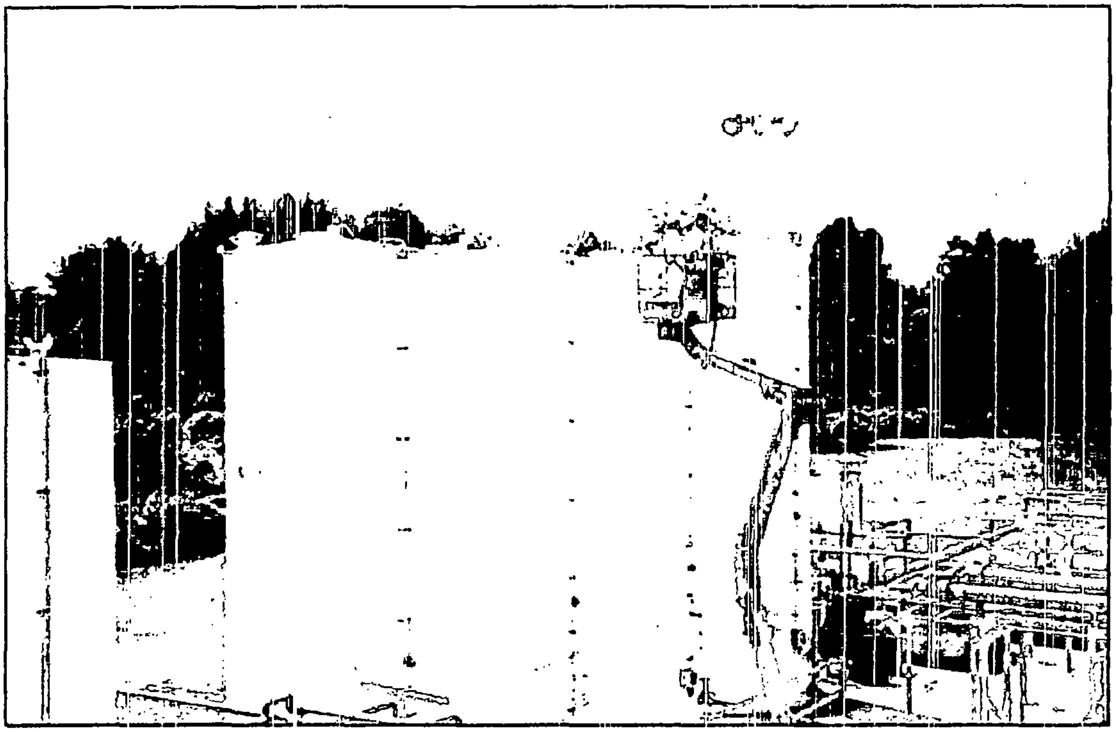
OFFICIAL PHOTOGRAPH NO. 3
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	Operation of the 40-foot Z-boom inside the tank farm.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 24, 2004	**Orientation:**	East
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 4
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	Sampling of Tank SH-1.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 24, 2004	**Orientation:**	Southeast
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 5
U.S. ENVIRONMENTAL PROTECTION AGENCY

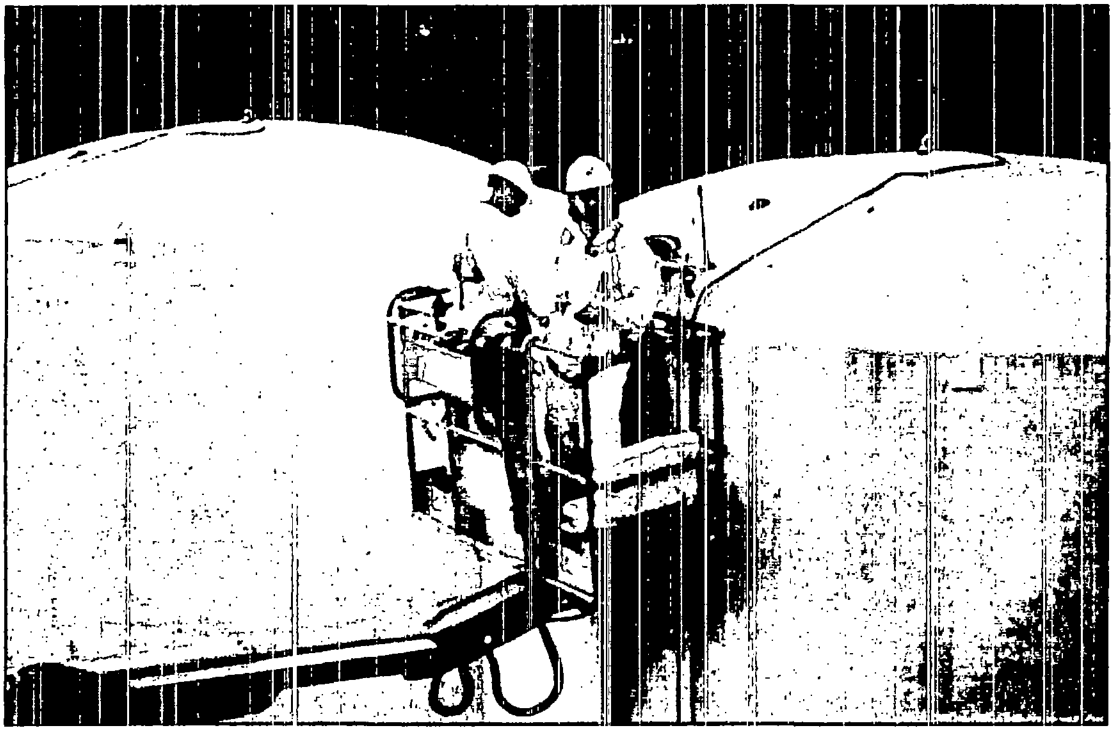
Subject: Sampling of tank SH-2.

Site: Seven Out, LLC
Waycross, Ware County, Georgia

Date: August 24, 2004 **Orientation:** Southwest

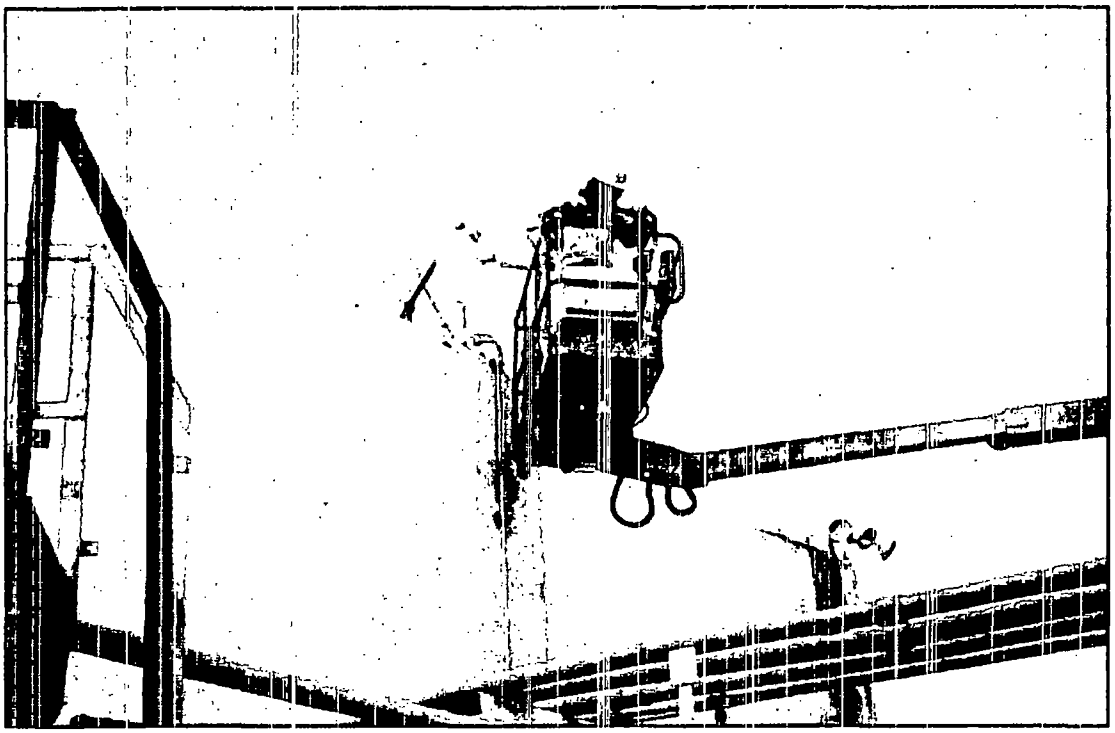
Photographer: John Mitchell,
Tetra Tech EM, Inc.

Witness: Randy Nattis,
Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 6
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	Sampling of tank DP-1.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 24, 2004	**Orientation:**	West
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 7
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Sampling of tank DP-2.

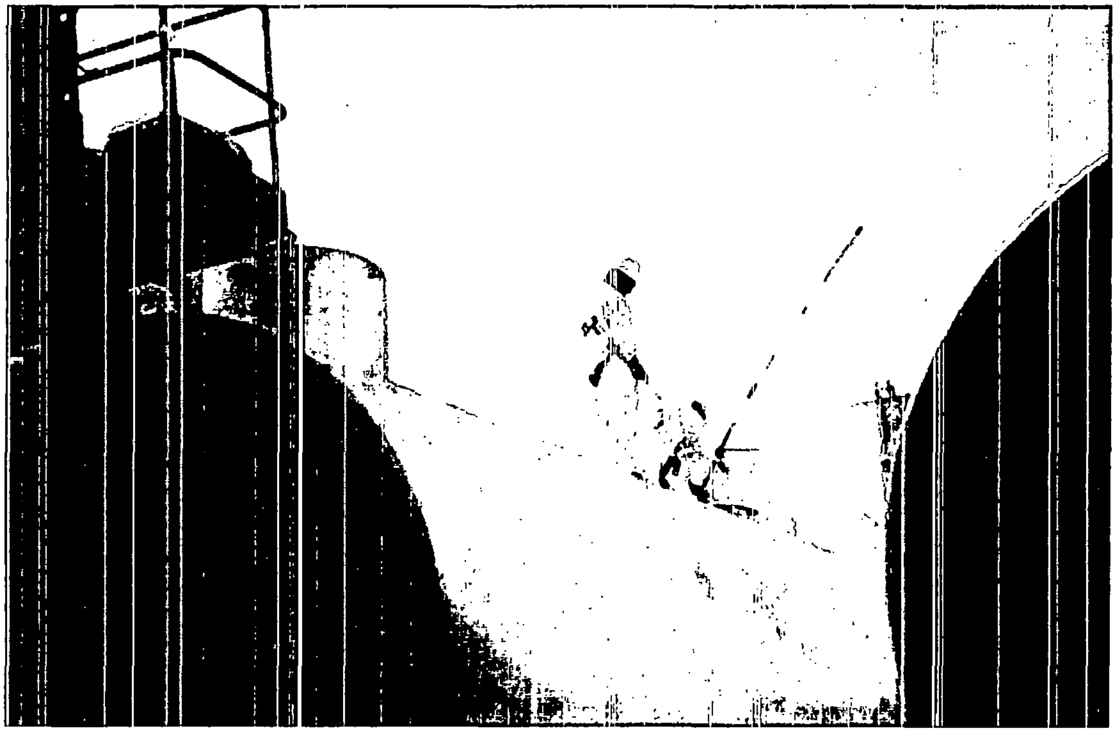
Site: Seven Out, LLC
Waycross, Ware County, Georgia

Date: August 24, 2004

Orientation: Northeast

Photographer: John Mitchell,
Tetra Tech EM, Inc.

Witness: Randy Nattis,
Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 8
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Sampling of tank CD-2.

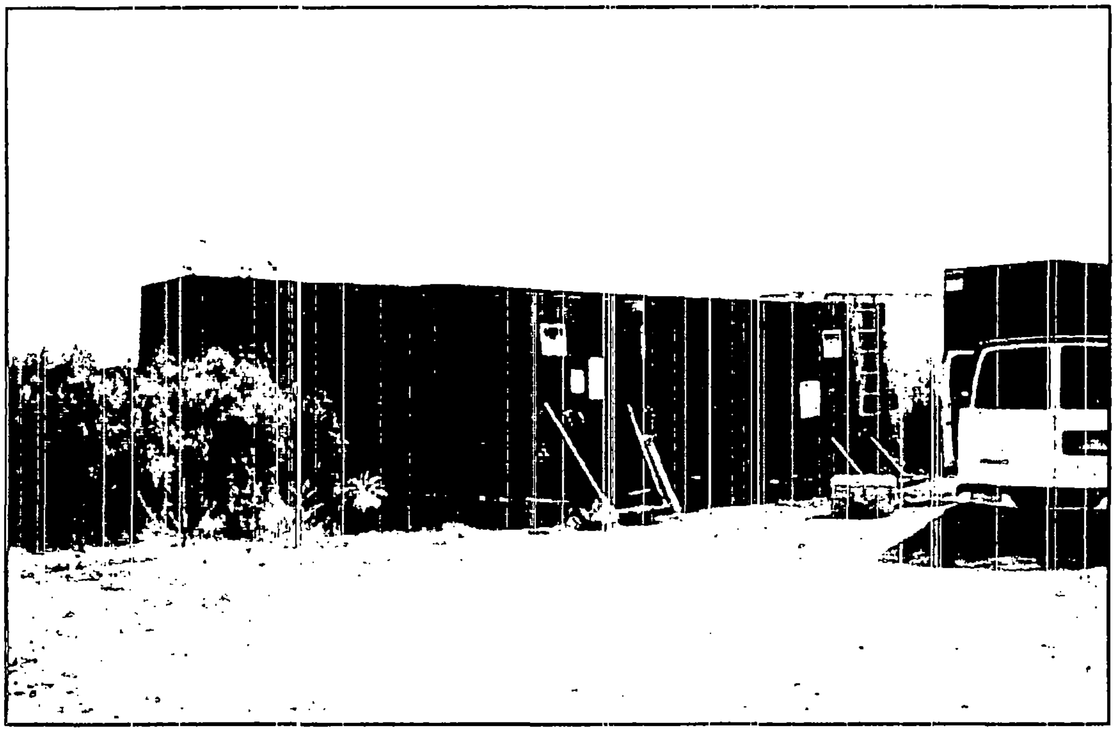
Site: Seven Out, LLC
Waycross, Ware County, Georgia

Date: August 25, 2004

Orientation: North

Photographer: John Mitchell,
Tetra Tech EM, Inc.

Witness: Randy Nattis,
Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 9
U.S. ENVIRONMENTAL PROTECTION AGENCY

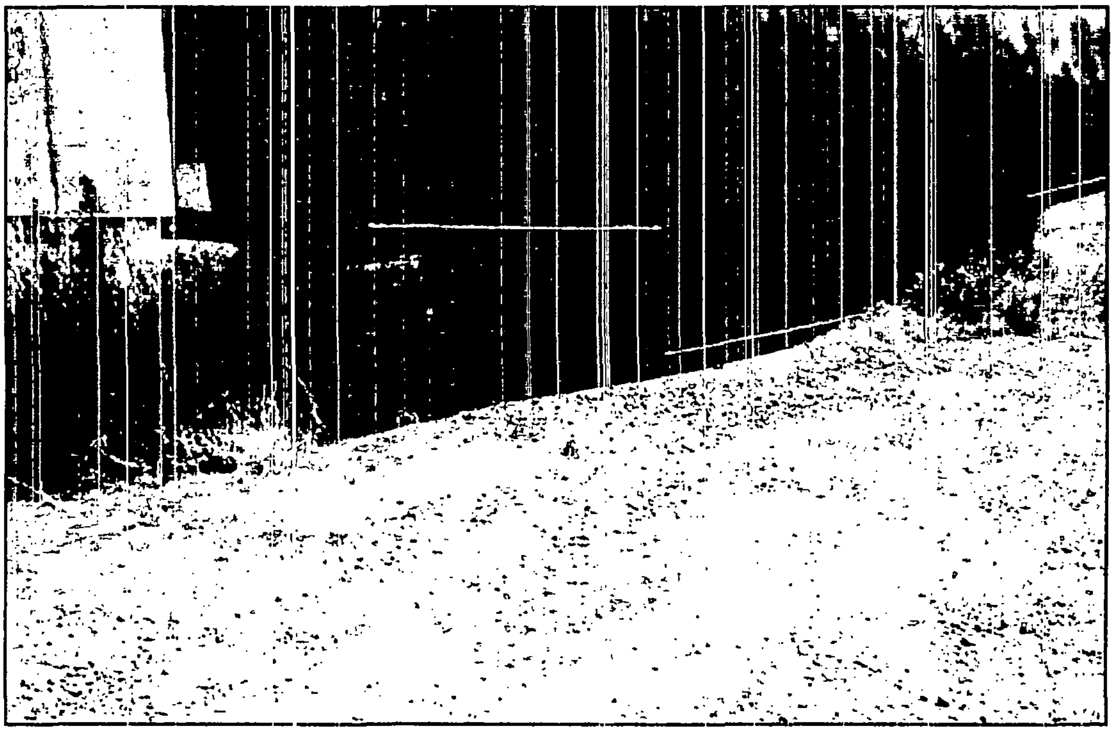
Subject: Frac tanks located south of the tank farm.

Site: Seven Out, LLC
Waycross, Ware County, Georgia

Date: August 25, 2004 **Orientation:** South

Photographer: John Mitchell,
Tetra Tech EM, Inc.

Witness: Randy Nattis,
Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 10
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	Frac tank G300D with stained soil possibly resulting from a past release.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 25, 2004	**Orientation:**	South
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.

OFFICIAL PHOTOGRAPH NO. 11
U.S. ENVIRONMENTAL PROTECTION AGENCY

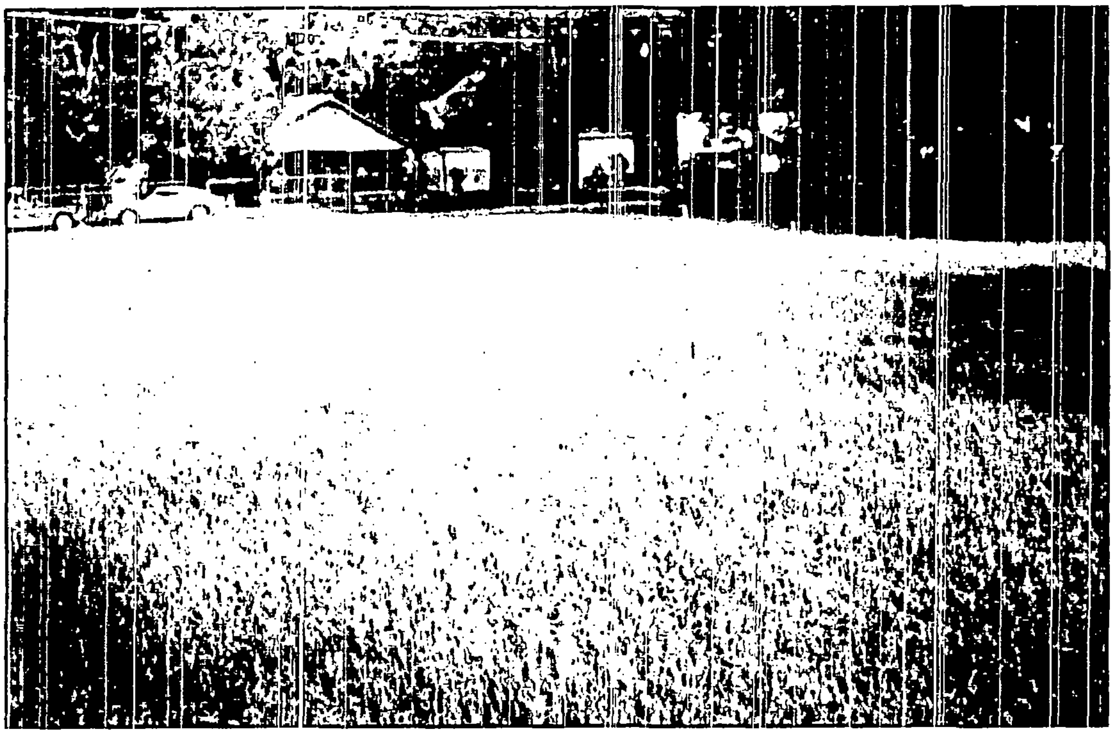
Subject:	Sampling location for soil sample SO-SW.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 25, 2004	**Orientation:**	North
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.

OFFICIAL PHOTOGRAPH NO. 12
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	Sampling location for soil sample SO-DD.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 25, 2004	**Orientation:**	East
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.

OFFICIAL PHOTOGRAPH NO. 13
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	Sampling location for soil sample SO-FRT.		
Site:	Seven Out, LLC Waycross, Ware County, Georgia		
Date:	August 25, 2004	**Orientation:**	North
Photographer:	John Mitchell, Tetra Tech EM, Inc.	**Witness:**	Randy Nattis, Tetra Tech EM, Inc.



OFFICIAL PHOTOGRAPH NO. 14
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Sampling location for soil sample SO-BG (background sample).

Site: Seven Out, LLC
Waycross, Ware County, Georgia

Date: August 26, 2004 **Orientation:** North

Photographer: John Mitchell,
Tetra Tech EM, Inc.

Witness: Randy Nattis,
Tetra Tech EM, Inc.

APPENDIX G

TABLE OF WINESSES

(One Sheet)

TABLE OF WITNESSES

Terry Stilman
On-Scene Coordinator
U.S. EPA Region 4
61 Forsyth Street, SW
11th Floor
Atlanta, Georgia 30303
(678) 576-6440

Fred Dunn
Georgia Environmental Protection Division
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(404) 657-8831

John Mitchell (former Tetra Tech START team member)
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Duluth, Georgia 30096
(678) 775-3080

Brenda E. Blyler
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Duluth, Georgia 30096
(678) 775-3093

Randy Nattis
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101 Marietta Street
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Atlanta, Georgia 30303
(404) 225-5530

Alan Whitt
Whitt Environmental Services, Inc.
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Lawrenceville, GA 30043
(678) 520-1750

APPENDIX H

DATA VALIDATION REPORT AND QUALIFIED DATA TABLES

(27 Sheets)

December 9, 2004

Mr. Terry Stilman
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW, 11th Floor
Atlanta, Georgia 30303

Subject: **Data Validation Report**
Seven Out Site
Waycross, Georgia
Analytical Environmental Services, Inc.
Laboratory Lot Number: 0408B38

Volatile Organic Compounds:	31 Aqueous and 4 Solid Samples and 1 Trip Blank
Semivolatile Organic Compounds:	33 Aqueous and 4 Solid Samples
Total Metals:	33 Aqueous and 4 Solid Samples
Total Mercury:	33 Aqueous and 4 Solid Samples
TCLP Metals:	29 Aqueous and 4 Solid Samples
TCLP Mercury:	29 Aqueous and 4 Solid Samples

Dear Mr. Stilman:

Data validation was performed on the analytical data for 34 aqueous and 4 solid samples collected by Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) at the Seven Out site in Waycross, Georgia,, on August 24 and 25, 2004. The samples were analyzed under Laboratory Lot Number 0408B38 by Analytical Environmental Services, Inc., of Atlanta, Georgia. The samples were analyzed for volatile organic compounds (VOC) by SW-846 Methods 5030B and 8260B; semivolatile organic compounds (SVOC) by SW-846 Methods 3520, 3550A, and 8270C; total metals by SW-846 Methods 3010A, 3050B, and 6010B; total mercury by SW-846 Methods 7470A and 7471A; toxicity characteristic leaching procedure (TCLP) metals by SW-846 Methods 1311, 3010A, and 6010B; and TCLP mercury by SW-846 Methods 1311 and 7470A. Due to the nature of their matrices, the laboratory treated four aqueous samples (CD-1-S, CD-3-S, SH-4-S, and SS-2-S) as "waste" samples, so the results for them are reported on a per kilogram basis.

Analytical data was evaluated in general accordance with all applicable data validation guidance documents, including the following: the US EPA Contract Laboratory Program National Functional Guidelines (NFG) for Organic Data Review (EPA, October 1999) and the US EPA Contract Laboratory Program NFGs for Inorganic Data Review (EPA, July 2002). The analytical methods that were used by the fixed laboratories during this project provide guidance on procedures and method acceptance criteria that, in some areas, differ from that given in the NFGs. Where differences exist between the methods and the NFGs, the data validators followed the acceptance criteria given in the methods. In addition, if the fixed laboratory data package presented laboratory-derived acceptance criteria, then these criteria were used to evaluate the data, unless the criteria were considered inadequate. Data evaluation was based on the following parameters:

- Data Completeness
- Holding Times
- Gas Chromatography and Mass Spectrometry (GC/MS) Instrument Performance Check
- Initial and Continuing Calibrations
- Blanks
- Inductively Coupled Plasma Interference Check Samples
- Inductively Coupled Plasma Serial Dilution
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicates and Matrix Duplicates
- Field Duplicates
- Laboratory Control Samples
- Internal Standards
- System Performance
- Compound Quantitation
- Compound Identification
- Tentatively Identified Compounds (TIC)

The following data validation approach was used; it should meet the needs of most data uses and requirements for limits on decision-making uncertainty for the data. This approach consisted of a review of all of the data, including the raw data (which was provided by the fixed laboratory in electronic form). This data validation effort constituted a full validation of the data and involved a 100 percent check against applicable acceptance criteria of all quality control (QC) parameter data, including those parameters listed above. In addition, all data pertaining to analyte identification, such as chromatograms and mass spectra, were checked completely (100 percent) to evaluate the accuracy of analyte identification. This effort also involved an in-depth quantitative check of a fraction of the data; this check included the recalculation of QC results (such as percent recoveries [%R] and relative percent difference [RPD] values) and target analyte results from the raw data. Recalculations were conducted at a frequency of around 10 percent for those data that were transcribed and generated by hand. For data that were calculated by software, recalculations were conducted at varying frequencies and to the extent necessary to confirm the adequacy of the software. If errors or discrepancies were encountered during the recalculation and checking of any data, the extent of the data check was expanded, as necessary, to determine the full extent of the problem.

Tables 1 and 2 summarize the qualified analytical results for aqueous and soil samples, respectively (see Enclosure 1).

1.0 DATA COMPLETENESS

The data package for Laboratory Lot Number 0408B38 was complete except that the raw data for the VOC and SVOC analyses did not include mass spectra and no TIC data were presented. TCLP metals for samples NAOH, Sodium Hydroxide, ST-1, and Sulfuric Acid were requested on the chain-of-custody record, but were not performed because of the sample matrix. VOC analyses for samples Sodium Hydroxide and Sulfuric Acid were also not performed because of the sample matrix.

2.0. HOLDING TIMES

The holding times were met for all analyses of the samples. The temperatures of the sample coolers varied from 3.1 to 5.4 degrees Celsius upon arrival at the laboratory.

3.0 GC/MS INSTRUMENT PERFORMANCE CHECK

All GC/MS instrument performance checks for the VOC and SVOC analysis met the acceptance criteria.

4.0 INITIAL AND CONTINUING CALIBRATIONS

The initial and continuing calibrations were analyzed at the proper frequencies and concentrations and met all requirements, with the following exceptions.

The VOC analyses used three instruments, four initial calibrations, and eight continuing calibrations. In the initial calibrations a few analytes had relative standard deviations (RSD) exceeding the 30 percent QC limit. However, the laboratory calculated these results by linear regression and found coefficients of determination of 0.995 or higher for all. Therefore, no qualifications are warranted for initial calibration irregularities.

On instrument GCMS-5, the 30 August continuing calibration had excessive (greater than 25 percent) percent differences (%D) from the initial calibration for acetone, bromomethane, carbon tetrachloride, and methylene chloride. The only affected result was the acetone result in the 5,000-fold dilution of sample OP-4-S, which was flagged "J" to indicate that it is estimated. The 31 August continuing calibration had an excessive %D for methylene chloride. Therefore, sample reporting limits for that compound were flagged "UJ" in samples CD-1-S, CD-3-S, F237, FA-S, G107D, G300D, RW-1-S, RW-2-S, SH-1-S, SH-2-S, SH-3-S, SH-4-S, SS-1-S, SS-2-S, CT-7, CT-8, and ST-1. The 1 September continuing calibration for instrument GCMS-5 had excessive %Ds for bromomethane and methylene chloride. Because that continuing calibration was used only for determination of acetone at high dilutions in several samples, no qualifications are required.

On instrument GCMS-12, the 31 August continuing calibration had an excessive %D for methyl acetate. The nondetect results for that compound in samples AS-S, CD-2-S, CT-1-S, CT-2-S, CT-3-S, CT-4-S, CT-5-S, CT-6-S, DP-1-S Layer A, DP-1-S Layer B, and DP-2-S were flagged "UJ" to indicate that the sample reporting limits are estimated. The 1 September continuing calibration had excessive %Ds for acetone, dichlorodifluoromethane, and methyl acetate. Therefore, all three compounds were flagged "UJ" as estimated in sample DAF-S, but only acetone in sample SH-3-S, because only that compound was quantitated in the 100-fold dilution of the sample. The 2 September continuing calibration of instrument GCMS-12 had excessive %D results for 2-butanone, 2-hexanone, acetone, dichlorodifluoromethane, and methyl acetate. The results for those compounds in the only associated sample, the trip blank, were flagged "UJ" to indicate that the sample reporting limits are estimated.

The VOC analyses of the soil samples were performed on instrument GCMS-7. The first continuing calibration, performed on 30 August, had excessive %Ds for 1,2-dibromo-3-chloropropane, 2-butanone, acetone, chloromethane, dichlorodifluoromethane, methyl tert-butyl ether, tetrachloroethene, and trichlorofluoromethane. The sample reporting limits for those compounds in the only associated sample, SO-FRT, were flagged "UJ" to indicate that they are estimated. The 31 August continuing calibration had excessive %D results for all of the above-named compounds plus Freon-113 (1,1,2-trichloro-1,2,2-trifluoroethane) and trichloroethene. The sample reporting limits for those compounds were flagged "UJ" to indicate that they are estimated in the other soil samples, SO-BG, SO-DD, and SO-SW.

The SVOC analyses used two instruments, three initial calibrations, and ten continuing calibrations. As with the VOC analyses, a few analytes in each initial calibration had RSD exceeding the 30 percent QC limit. However, the laboratory calculated these results by linear regression and found coefficients of determination of 0.995 or higher for all. Therefore, no qualifications are warranted for initial calibration problems. In addition, almost all of the continuing calibrations had all analytes within QC limits. The first exception was the 2 September continuing calibration on instrument MS9, which had an excessive %D for benzaldehyde. This continuing calibration was used only to determine phenol in some diluted samples, so no qualifications are warranted. The other exception was the 3 September continuing calibration on instrument MS10, which had excessive %Ds for butyl benzyl phthalate and benzo(k)fluoranthene. The sample reporting limits for those analytes in sample DP-1-S Layer A were flagged "UJ" to indicate that they are estimated. That same continuing calibration gave negligible response to phenol, possibly because the compound was omitted from the calibration mixture. Phenol was determined in diluted re-analyses of samples G107D, OP-4-S, CT-7, and CT-8 after that continuing calibration. The phenol results for those samples were flagged "J" to indicate the uncertainty caused by the lack of verification of the calibration.

5.0 BLANKS

The trip blank contained no VOCs. Calibration blanks and method blanks were free of target analytes in all analyses, with the following exception. One continuing calibration blank in the soil metals analyses contained some selenium. Since none of the samples contained any selenium, no qualifications are warranted.

6.0 INDUCTIVELY COUPLED PLASMA INTERFERENCE CHECK SAMPLES

The ICP interference check samples (ICS) results were within acceptable limits with the following exceptions. One pair of samples analyzed on 1 September with aqueous samples had essentially zero recoveries (very small positive and negative results in the raw data) for all analytes and looked very much like laboratory blanks. No qualifications are warranted, because this appears to be a laboratory error in loading the tray of vials for analysis. However, two sets of ICS samples analyzed with the soil samples gave potassium recoveries of 147 and 145 percent, respectively, versus QC limits of 80 to 120 percent. The positive potassium results in the soil samples were flagged "J" to indicate that they are estimated and may be biased high.

7.0 INDUCTIVELY COUPLED PLASMA SERIAL DILUTION

ICP serial dilutions were analyzed and gave acceptable results with one exception. In the aqueous serial dilution analysis performed on sample CT-6-S, calcium recovery was 116 percent, just above the QC limits of 85 to 115 percent. All aqueous results for calcium were flagged "J" to indicate the apparent matrix interference.

8.0 SURROGATE RECOVERIES

Surrogate recoveries for VOC and SVOC analyses were within specified control limits, with the following exceptions.

In the VOC analyses, all surrogate irregularities involved 4-bromofluorobenzene in the soil samples. Recoveries were somewhat below the QC limits of 65 to 133 percent in samples SO-BG, SO-DD, and SO-SW, at 58 to 63 percent. Therefore, all VOC results for those samples were flagged "J" or "UJ", as appropriate, to indicate that they are estimated due to apparent matrix interference. Sample SO-FRT had a low, but acceptable, recovery of 66 percent, but the MS/MSD samples created from sample SO-FRT had low recoveries of 64 and 64 percent. No qualifications were applied to the parent sample results for the irregularities in the QC samples.

In the SVOC analyses, a number of samples had one surrogate outside QC limits, or one acidic surrogate and one base/neutral surrogate outside of their respective limits. No qualifications are warranted for these irregularities. However, three samples, DP-1-S Layer B, SH-2-S, and SH-3-S, had recoveries for two of the three acidic surrogates outside QC limits. Therefore, all results for acidic compounds in those three samples were flagged "J" or "UJ", as appropriate, to indicate that they are considered estimated because of matrix interference. Sample DP-1-S Layer A had irregular recoveries for two of its acidic surrogates and for all three of its base/neutral surrogates. Therefore, all results for that sample were flagged "J" or "UJ", as appropriate, to indicate that they are considered estimated because of serious matrix interference. In a number of samples, recovery of the acidic surrogate 2,4,6-tribromophenol was zero. The NFG state that all non-detected acidic results in those samples should be rejected. Examination of the chromatograms of the affected samples showed a large mass of non-target compounds with retention times similar to those of the surrogate. The presence of these compounds created a "hump" from which the surrogate peak could not be separated. As a matter of professional judgment, the associated acidic compound results were considered to be estimated, rather than rejected, for this localized matrix interference.

9.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATES AND MATRIX DUPLICATES

MS/MSD recoveries were within the specified control limits, with the following exceptions, all involving recoveries in the SVOC and total metals analyses. Aqueous MS/MSD analyses were performed using sample CT-6-S. In the SVOC analyses, control limits were not applied for phenol because the unspiked sample result was greater than 25 times the spike concentration. No qualifications are warranted for this data gap. Recoveries for potassium and sodium could not be determined because the unspiked sample contained more than four times as much as the spike. No qualifications are warranted for this data gap. However, there were low recoveries for aluminum (53 and 54 percent from the MS and MSD samples, respectively; 62 percent from the post-digestion spike [PDS]), barium (68 and 70 percent; 74 percent from the PDS), and thallium (72 and 74 percent; 84 percent from the PDS spike), versus the QC limits of 75 to 125 percent. Therefore, all aqueous aluminum, barium, and thallium results were flagged "J" or "UJ", as appropriate, to indicate that they are considered estimated.

The soil MS/MSD analyses were performed using sample SO-FRT. Calcium and iron recoveries could not be determined because the unspiked sample contained much more than the spike. No qualifications are warranted for these data gaps. However, antimony recoveries were only 73 and 71 percent (92 percent in the PDS), versus QC limits of 75 to 125 percent. The antimony results in the soil samples were flagged "UJ" to indicate that the results are considered estimated because of apparent matrix interference.

The waste MS analysis was performed using sample CD-1-S. Due to insufficient sample, no MSD analysis was performed. Calcium and sodium recoveries could not be determined because the unspiked sample contained much more than the spike. No qualifications are warranted for these data gaps. Zinc recovery was 74 percent (94 percent in the PDS), just below the QC limits of 75 to 125 percent. The zinc results in the waste samples were flagged "J" to indicate that they are considered estimated because of apparent matrix interference.

10.0 FIELD DUPLICATES

No field duplicate samples were collected or analyzed.

11.0 LABORATORY CONTROL SAMPLES

All laboratory control sample (LCS) results were within their various QC limits.

12.0 INTERNAL STANDARDS

For the semivolatile and volatile analyses, the internal standard retention times in the samples were within QC limits established using the associated continuing calibration standard data in all cases. The internal standard area counts were within their QC limits of 50 to 200 percent with the following exceptions. In the VOC analysis of aqueous sample DP-2-S, matrix interference resulted in low area counts for pentafluorobenzene, 1,4-difluorobenzene, and chlorobenzene-d5, the first three of the four internal standards. In soil sample SO-BG, the fourth internal standard, 1,4-dichlorobenzene-d4, had an area count below the QC limits, also a result of apparent matrix interference. The analytes in those two samples that are quantitated against the internal standards with irregular recoveries were flagged "J" or "UJ", as appropriate, to indicate that their concentrations are considered estimated.

In the SVOC analyses, aqueous samples CD-3-S, CT-3-S, CT-5-S, SH-1-S, SH-2-S, and SS-1-S and soil sample SO-DD had high area counts, as much as 800 percent, for chrysene-d12, the fifth of six internal standards. This may be a result of the co-elution of the internal standard with some unidentified non-target compound or compoounds of these samples. The compounds quantitated against that internal standard (3,3'-dichlorobenzidine, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, chrysene, and pyrene) were flagged "UJ" to indicate the uncertainty in their sample reporting limits as a result of the interference.

13.0 SYSTEM PERFORMANCE

No signs of degraded instrument performance were observed. Analytical systems were judged to have been within control and stable during the course of these analyses.

14.0 COMPOUND QUANTITATION

Sample results were checked for proper dilution factors, volumes, masses, and adjustments for moisture content. Samples were correctly calculated. The laboratory does not report results less than the laboratory reporting limit. Many samples contained high concentrations of analytes, of non-target analytes, or of both. Therefore the initial analyses of some samples were performed at 10-fold or 20-fold dilutions, with corresponding higher sample reporting limits. In addition, a number of samples had one or more analytes with concentrations above the instrument's calibration range. Therefore, the samples were re-analyzed at a dilution, as much as 500 times the original analysis, to bring the results within calibration range. Although it took as many as three analyses of a sample to bring the results within calibration range, all reported positive results were within calibration range, so no extrapolations were reported. Therefore, no qualifications were required because of quantitation irregularities.

15.0 COMPOUND IDENTIFICATION

The relative response times (RRT) of the reported compounds in the volatile and semivolatile analyses were within ±0.06 RRT units of the standard relative retention times. The laboratory did not present mass spectra, so the identity of the analytes could not be fully verified.

16.0 TENTATIVELY IDENTIFIED COMPOUNDS

No tentatively identified compound results were presented. It was noted in the chromatograms from the VOC and SVOC analyses that many samples contained large amounts of numerous compounds not on the analyte lists. The raw data included results for a number of VOCs and SVOCs included in the calibration standards, but not reported here. In particular, vinyl acetate was a major component of many samples and a number of other compounds were also detected in one or more samples.

17.0 OVERALL ASSESSMENT OF DATA

The overall quality of this data package was acceptable. The primary reason for qualification of the data is the inherent nature of the samples. Many samples contained large concentrations of many analytes and non-target analytes that caused significant matrix interference. Because the analytical methods were optimized to detect and determine trace quantities of analytes, these high concentrations resulted in problems with surrogate, MS/MSD, and internal standard results. The data may be used, as qualified, for any purpose.

If you have any questions or need further information, please contact the undersigned at (404) 225-5516.

Sincerely,

John Schendel
Data Validation Coordinator

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETER	SO-BG	SO-DD	SO-FRT	SO-SW
TCLP, Metals (mg/L)				
Arsenic	0.250 U	0.250 U	0.250 U	0.250 U
Barium	0.500 U	0.500 U	0.500 U	0.500 U
Cadmium	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Chromium	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Lead	0.0500 U	8.1300	0.0500 U	0.0690
Selenium	0.100 U	0.100 U	0.100 U	0.100 U
Silver	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Mercury	0.00400 U	0.00400 U	0.00400 U	0.00400 U
Metals (mg/kg)				
Aluminum	623	1860	586	2180
Antimony	3.93 UJ	3.59 UJ	3.75 UJ	4.2 UJ
Arsenic	3.93 U	3.59 U	3.75 U	151
Barium	3.93 U	15.5	7.11	75.2
Beryllium	1.96 U	1.8 U	1.87 U	2.1 U
Cadmium	1.96 U	1.8 U	1.87 U	2.1 U
Calcium	234	7740	1530	3130
Chromium	1.96 U	7.93	1.87 U	8.69
Cobalt	1.96 U	1.8 U	1.87 U	3.46
Copper	1.96 U	59.2	17.8	107
Iron	596	4910	1080	10800
Lead	3.93 U	17.7	10.8	264
Magnesium	39.3 U	507	58.5	143
Manganese	4.26	74.7	8.22	169
Nickel	3.93 U	3.59 U	3.75 U	4.62
Potassium	78.5 U	80.3 J	74.9 U	92.1 J
Selenium	3.93 U	3.59 U	3.75 U	4.2 U
Silver	1.96 U	1.8 U	1.87 U	2.1 U
Sodium	247	470	389	204
Thallium	3.93 U	3.59 U	3.75 U	4.2 U
Vanadium	3.93 U	5.34	3.75 U	8.58
Zinc	4.11	32.3	8.32	518
Mercury	0.0987 U	0.0992 U	0.0994 U	0.35
Volatiles Organic Compounds (ug/kg)				
1,1,1-Trichloroethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,1,2,2-Tetrachloroethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,1,2-Trichloroethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,1-Dichloroethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,1-Dichloroethene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,2,4-Trichlorobenzene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,2-Dibromo-3-chloropropane	6.6 UJ	3.5 UJ	5.3 UJ	3.8 UJ
1,2-Dibromoethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,2-Dichlorobenzene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,2-Dichloroethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,2-Dichloropropane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,3-Dichlorobenzene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
1,4-Dichlorobenzene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
2-Butanone	13 UJ	7 UJ	11 UJ	7.6 UJ
2-Hexanone	13 UJ	7 UJ	11 U	7.6 UJ
4-Methyl-2-pentanone	13 UJ	7 UJ	11 U	7.6 UJ
Acetone	13 UJ	70 UJ	110 UJ	75.6 UJ
Benzene	6.6 UJ	32 J	5.3 U	3.8 UJ
Bromodichloromethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Bromoform	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Bromomethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Carbon disulfide	13 UJ	10 J	11 U	7.6 UJ

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETER	SO-BG	SO-DD	SO-FRT	SO-SW
Volatiles Organic Compounds (ug/kg) (Cont.)				
Carbon tetrachloride	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Chlorobenzene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Chloroethane	13 UJ	7 UJ	11 U	7.6 UJ
Chloroform	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Chloromethane	13 UJ	7 UJ	11 UJ	7.6 UJ
cis-1,2-Dichloroethene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
cis-1,3-Dichloropropene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Cyclohexane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Dibromochloromethane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Dichlorodifluoromethane	13 UJ	7 UJ	11 UJ	7.6 UJ
Ethylbenzene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Freon-113	13 UJ	7 UJ	11 U	7.6 UJ
Isopropylbenzene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
m,p-Xylene	13 UJ	7 UJ	11 U	7.6 UJ
Methyl acetate	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Methyl tert-butyl ether	6.6 UJ	3.5 UJ	5.3 UJ	3.8 UJ
Methylcyclohexane	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Methylene chloride	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
o-Xylene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Styrene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Tetrachloroethene	6.6 UJ	3.5 UJ	5.3 UJ	3.8 UJ
Toluene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
trans-1,2-Dichloroethene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
trans-1,3-Dichloropropene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Trichloroethene	6.6 UJ	3.5 UJ	5.3 U	3.8 UJ
Trichlorofluoromethane	6.6 UJ	3.5 UJ	5.3 UJ	3.8 UJ
Vinyl chloride	13 UJ	7 UJ	11 U	7.6 UJ
Semivolatile Organic Compounds (ug/kg)				
1,1'-Biphenyl	330 U	330 U	330 U	330 U
2,4,5-Trichlorophenol	1700 U	1700 U	1700 U	1700 U
2,4,6-Trichlorophenol	330 U	330 U	330 U	330 U
2,4-Dichlorophenol	330 U	330 U	330 U	330 U
2,4-Dimethylphenol	330 U	330 U	330 U	330 U
2,4-Dinitrophenol	1700 U	1700 U	1700 U	1700 U
2,4-Dinitrotoluene	330 U	330 U	330 U	330 U
2,6-Dinitrotoluene	330 U	330 U	330 U	330 U
2-Chloronaphthalene	330 U	330 U	330 U	330 U
2-Chlorophenol	330 U	330 U	330 U	330 U
2-Methylnaphthalene	330 U	610	330 U	330 U
2-Methylphenol	330 U	330 U	330 U	330 U
2-Nitroaniline	1700 U	1700 U	1700 U	1700 U
2-Nitrophenol	330 U	330 U	330 U	330 U
3,3'-Dichlorobenzidine	670 U	670 UJ	670 U	670 U
3-Nitroaniline	1700 U	1700 U	1700 U	1700 U
4,6-Dinitro-2-methylphenol	1700 U	1700 U	1700 U	1700 U
4-Bromophenyl phenyl ether	330 U	330 U	330 U	330 U
4-Chloro-3-methylphenol	330 U	330 U	330 U	330 U
4-Chloroaniline	330 U	330 U	330 U	330 U
4-Chlorophenyl phenyl ether	330 U	330 U	330 U	330 U
4-Methylphenol	330 U	330 U	330 U	330 U
4-Nitroaniline	1700 U	1700 U	1700 U	1700 U
4-Nitrophenol	1700 U	1700 U	1700 U	1700 U
Acenaphthene	330 U	330 U	330 U	330 U
Acenaphthylene	330 U	330 U	330 U	1300
Acetophenone	330 U	330 U	330 U	330 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETER	SO-BG	SO-DD	SO-FRT	SO-SW
Semivolatile Organic Compounds (ug/kg) (Cont.)				
Anthracene	330 U	330 U	330 U	1000
Atrazine	330 U	330 U	330 U	330 U
Benz(a)anthracene	330 U	330 UJ	330 U	2400
Benzaldehyde	330 U	330 U	330 U	330 U
Benzo(a)pyrene	330 U	330 U	330 U	2800
Benzo(b)fluoranthene	330 U	330 U	330 U	1800
Benzo(g,h,i)perylene	330 U	330 U	330 U	2400
Benzo(k)fluoranthene	330 U	330 U	330 U	3200
Bis(2-chloroethoxy)methane	330 U	330 U	330 U	330 U
Bis(2-chloroethyl)ether	330 U	330 U	330 U	330 U
Bis(2-chloroisopropyl)ether	330 U	330 U	330 U	330 U
Bis(2-ethylhexyl)phthalate	330 U	330 UJ	330 U	330 U
Butyl benzyl phthalate	330 U	330 UJ	330 U	330 U
Caprolactam	330 U	330 U	330 U	330 U
Carbazole	330 U	330 U	330 U	370
Chrysene	330 U	330 UJ	330 U	3100
Dibenz(a,h)anthracene	330 U	330 U	330 U	650
Dibenzofuran	330 U	330 U	330 U	330 U
Diethyl phthalate	330 U	330 U	330 U	330 U
Dimethyl phthalate	330 U	330 U	330 U	330 U
Di-n-butyl phthalate	330 U	1100	330 U	330 U
Di-n-octyl phthalate	330 U	330 U	330 U	330 U
Fluoranthene	330 U	330 U	330 U	4600
Fluorene	330 U	330 U	330 U	330 U
Hexachlorobenzene	330 U	330 U	330 U	330 U
Hexachlorobutadiene	330 U	330 U	330 U	330 U
Hexachlorocyclopentadiene	670 U	670 U	670 U	670 U
Hexachloroethane	330 U	330 U	330 U	330 U
Indeno(1,2,3-cd)pyrene	330 U	330 U	330 U	3000
Isophorone	330 U	330 U	330 U	330 U
Naphthalene	330 U	330 U	330 U	330 U
Nitrobenzene	330 U	330 U	330 U	330 U
N-Nitrosodi-n-propylamine	330 U	330 U	330 U	330 U
N-Nitrosodiphenylamine	330 U	330 U	330 U	330 U
Pentachlorophenol	1700 U	1700 U	1700 U	1700 U
Phenanthrene	330 U	400	330 U	1800
Phenol	330 U	330 U	330 U	330 U
Pyrene	330 U	330 UJ	330 U	4000

Notes:
BG = Background
DD = Drainage ditch
FRT = Frac tank area
J = The associated value is the approximate concentration of the analyte in the sample.
µg/kg = Micrograms per kilogram
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
SO = Soil
SW = South wall of the tank farm
TCLP = Toxicity characteristic leaching procedure
U = Analyte was analyzed for but not detected at or above the associated value.

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	AS-S	CD-1-S	CD-2-S	CD-3-S	CT-1-S	CT-2-S	CT-3-S	CT-4-S	CT-5-S
TCLP Metals (mg/L)									
Arsenic	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
Barium	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500	0.500 U	0.500 U	0.500 U
Cadmium	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Chromium	0.0500 U	0.1120	0.0500 U	0.0500 U	0.4520	0.0708	0.0500 U	0.0500 U	0.0500 U
Lead	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Selenium	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Silver	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Mercury	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U
Metals	**mg/L**	**mg/kg**	**mg/L**	**mg/kg**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Aluminum	1.59 J	58	18 J	120	73.4 J	3.37 J	1.44 J	0.2 UJ	1.35 J
Antimony	0.0200 U	0.9800 U	0.0200 U	1.2000 U	0.0208	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Arsenic	0.0500 U	0.9800 U	0.0500 U	1.2000 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Barium	0.0457 J	1.6	0.0854 J	3.7	0.135 J	0.0329 J	0.0502 J	0.0279 J	0.428 J
Beryllium	0.0100 U	0.4900 U	0.0100 U	0.5900 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cadmium	0.0050 U	0.4900 U	0.0080	0.5900 U	0.0278	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	124 J	340	377 J	130	370 J	382 J	691 J	269 J	416 J
Chromium	0.0190	0.4900 U	0.0743	0.6100	1.9200	0.1330	0.0469	0.0133	0.0413
Cobalt	0.0200 U	0.4900 U	0.0552	0.4900 U	0.0688	0.0200 U	0.0229	0.0200	0.0200 U
Copper	0.716	0.89	1.9	14	31.7	4.65	3.3	0.4	1.19
Iron	29.3	110	253	40	431	36	18.4	6.15	101
Lead	0.0200	0.9800 U	0.0173	2.6000	0.0388	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Magnesium	22.8	9.8 U	44.3	12 U	25.7	14.4	54.3	42.5	27.1
Manganese	0.968	1.3	6.95	1.2 U	6.5	1.96	2.83	0.444	2.4
Nickel	0.108	0.98 U	0.301	1.2 U	1.65	0.209	0.227	0.17	0.141
Potassium	36.0	400.0	342.0	240.0	51.5	47.0	123.0	126.0	64.0
Selenium	0.0200 U	0.9800 U	0.0200 U	1.2000 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Silver	0.0100 U	0.4900 U	0.0100 U	0.5900 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Sodium	434	3300	3680	1700	1460	1950	3190	2620	2000
Thallium	0.0200 UJ	0.9800 U	0.0200 UJ	1.2000 U	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ
Vanadium	0.0100 U	0.9800 U	0.0100 U	41.0000	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Zinc	0.356	2.5 J	5.96	6.3 J	9.52	2.27	1.38	1.19	5.58
Mercury	0.00024	0.00981 U	0.0002 U	0.00934 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Volatile Organic Compounds	**ug/L**	**ug/kg**	**ug/L**	**ug/kg**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,1,2,2-Tetrachloroethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,1,2-Trichloroethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,2,4-Trichlorobenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,2-Dibromo-3-chloropropane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	AS-S	CD-1-S	CD-2-S	CD-3-S	CT-1-S	CT-2-S	CT-3-S	CT-4-S	CT-5-S
1,2-Dibromoethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Volatile Organic Compounds (Cont.)	**ug/L**	**ug/kg**	**ug/L**	**ug/kg**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,2-Dichlorobenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloropropane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,3-Dichlorobenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
1,4-Dichlorobenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	100 U	5000 U	250	5000 U	100 U	100 U	100 U	460	100 U
2-Hexanone	100 U	5000 U	100 U	5000 U	100 U	100 U	100 U	100 U	100 U
4-Methyl-2-pentanone	310	5000 U	110	5000 U	100 U	330	390	550	120
Acetone	3800	11000	11000 J	10000 U	700	1300	2200	2000	1000
Benzene	50 U	2500 U	640	2500 U	310	54	57	50 U	190
Bromodichloromethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Bromoform	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Bromomethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Carbon disulfide	50 U	5000 U	50 U	5000 U	140	50 U	50 U	50 U	50 U
Carbon tetrachloride	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Chlorobenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Chloroethane	100 U	5000 U	100 U	5000 U	100 U	100 U	100 U	100 U	100 U
Chloroform	50 U	2500 U	62	2500 U	50 U	50 U	50 U	50 U	50 U
Chloromethane	100 U	5000 U	100 U	5000 U	100 U	100 U	100 U	100 U	100 U
cis-1,2-Dichloroethene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
cis-1,3-Dichloropropene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Cyclohexane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Dibromochloromethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Dichlorodifluoromethane	100 U	5000 U	100 U	5000 U	100 U	100 U	100 U	100 U	100 U
Ethylbenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Freon-113	100 U	5000 U	100 U	5000 U	100 U	100 U	100 U	100 U	100 U
Isopropylbenzene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
m,p-Xylene	100 U	5000 U	100 U	5000 U	100 U	100 U	100 U	100 U	100 U
Methyl acetate	50 UJ	2500 U	50 UJ	2500 U	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ
Methyl tert-butyl ether	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Methylcyclohexane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Methylene chloride	50 U	2500 UJ	50 U	2500 UJ	50 U	50 U	50 U	50 U	50 U
o-Xylene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Styrene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Tetrachloroethene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Toluene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
trans-1,2-Dichloroethene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
trans-1,3-Dichloropropene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Trichloroethene	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	AS-S	CD-1-S	CD-2-S	CD-3-S	CT-1-S	CT-2-S	CT-3-S	CT-4-S	CT-5-S
Trichlorofluoromethane	50 U	2500 U	50 U	2500 U	50 U	50 U	50 U	50 U	50 U
Vinyl chloride	20 U	5000 U	20 U	5000 U	20 U	20 U	20 U	20 U	20 U
Semivolatile Organic Compounds	**ug/L**	**mg/kg**	**ug/L**	**mg/kg**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1'-Biphenyl	100 U	96 U	200 U	98 U	490	100 U	100 U	100 U	500 U
2,4,5-Trichlorophenol	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
2,4,6-Trichlorophenol	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2,4-Dichlorophenol	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2,4-Dimethylphenol	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2,4-Dinitrophenol	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
2,4-Dinitrotoluene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2,6-Dinitrotoluene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2-Chloronaphthalene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2-Chlorophenol	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2-Methylnaphthalene	100 U	96 U	1900	450	4000	120	290	100 U	1300
2-Methylphenol	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
2-Nitroaniline	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
2-Nitrophenol	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
3,3'-Dichlorobenzidine	100 U	640 U	200 U	660 UJ	200 U	100 U	100 UJ	100 U	500 UJ
3-Nitroaniline	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
4,6-Dinitro-2-methylphenol	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
4-Bromophenyl phenyl ether	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
4-Chloro-3-methylphenol	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
4-Chloroaniline	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
4-Chlorophenyl phenyl ether	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
4-Methylphenol	410	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
4-Nitroaniline	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
4-Nitrophenol	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
Acenaphthene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Acenaphthylene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Acetophenone	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Anthracene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Atrazine	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Benz(a)anthracene	100 U	96 U	200 U	98 UJ	200 U	100 U	100 UJ	100 U	500 UJ
Benzaldehyde	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Benzo(a)pyrene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Benzo(b)fluoranthene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Benzo(g,h,i)perylene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Benzo(k)fluoranthene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Bis(2-chloroethoxy)methane	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Bis(2-chloroethyl)ether	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Bis(2-chloroisopropyl)ether	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	AS-S	CD-1-S	CD-2-S	CD-3-S	CT-1-S	CT-2-S	CT-3-S	CT-4-S	CT-5-S
Bis(2-ethylhexyl)phthalate	110	96 U	880	98 UJ	2400	100 U	100 UJ	100 U	500 UJ
Butyl benzyl phthalate	100 U	96 U	200 U	98 UJ	200 U	100 U	100 UJ	100 U	500 UJ
Caprolactam	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Semivolatile Organic Compounds (Cont.)	**ug/L**	**mg/kg**	**ug/L**	**mg/kg**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Carbazole	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Chrysene	100 U	96 U	200 U	98 UJ	200 U	100 U	100 UJ	100 U	500 UJ
Dibenz(a,h)anthracene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Dibenzofuran	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Diethyl phthalate	100 U	96 U	2400	98 U	420	170	370	160	500 U
Dimethyl phthalate	100 U	96 U	200 U	98 U	200 U	100 U	270	100 U	500 U
Di-n-butyl phthalate	100 U	96 U	200 U	98 U	2200	100 U	230	100 U	680
Di-n-octyl phthalate	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Fluoranthene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Fluorene	100 U	96 U	200 U	98 U	1200	100 U	100 U	100 U	500 U
Hexachlorobenzene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Hexachlorobutadiene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Hexachlorocyclopentadiene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Hexachloroethane	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Indeno(1,2,3-cd)pyrene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Isophorone	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Naphthalene	100 U	96 U	1000	98 U	1000	100 U	110	100 U	500
Nitrobenzene	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
N-Nitrosodi-n-propylamine	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
N-Nitrosodiphenylamine	100 U	96 U	200 U	98 U	200 U	100 U	100 U	100 U	500 U
Pentachlorophenol	250 U	480 U	500 U	490 U	500 U	250 U	250 U	250 U	1250 U
Phenanthrene	100 U	96 U	200 U	260	1000	100 U	100 U	100 U	500 U
Phenol	100 U	96 U	11000	98 U	5900	5300	27000	40000	14000
Pyrene	100 U	96 U	200 U	98 UJ	1400	100 U	100 UJ	100 U	500 UJ

Notes:

J = The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L = Micrograms per liter
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = The analyte was not analyzed for
TB-1 = Trip blank
TCLP = Toxicity characteristic leaching procedure
U = Analyte was analyzed for but not detected at or above the associated value
UJ = Analyte was analyzed for but not detected at or above the associated value, which is estimated

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	CT-6-S	CT-7	CT-8	DAF-S	DP-1-S LAYER A	DP-1-S LAYER B	DP-2-S	F237	FA-S
TCLP Metals (mg/L)									
Arsenic	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
Barium	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Cadmium	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Chromium	0.0500 U	0.0500 U	0.0655	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Lead	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0630	0.0500 U
Selenium	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Silver	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Mercury	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U
Metals	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Aluminum	0.2 UJ	1.16 J	3.43 J	0.2 UJ	6.62 J	92 J	0.2 UJ	1 UJ	0.287 J
Antimony	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.1000 U	0.0200 U	0.1000 U	0.0200 U
Arsenic	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.2500 U	0.0500 U	0.2500 U	0.0500 U
Barium	0.0312 J	0.0536 J	0.0542 J	0.02 UJ	0.063 J	0.55 J	0.02 UJ	0.1 UJ	0.02 UJ
Beryllium	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0500 U	0.0100 U
Cadmium	0.0050 U	0.0050 U	0.0088	0.0050 U	0.0050 U	0.0250 U	0.0050 U	0.0250 U	0.0050 U
Calcium	60.8 J	730 J	573 J	21.3 J	716 J	989 J	22.1 J	7.23 J	164 J
Chromium	0.0104	0.0113	0.1330	0.0100 U	0.0387	0.1830	0.0100 U	0.0500 U	0.0100 U
Cobalt	0.0200 U	0.0200 U	0.0506	0.0200 U	0.0315	0.1000 U	0.0200 U	0.1000 U	0.0200 U
Copper	0.437	2.25	3.3	0.01 U	11	13.1	0.353	0.142	0.0388
Iron	2.52	16.1	40.5	7.05	31.3	232	2.38	11.1	5.53
Lead	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0386	0.1070	0.0100 U	0.0500 U	0.0100 U
Magnesium	56.5	41.2	37.3	1.99	43.7	69.8	36.2	0.902	25.1
Manganese	0.396	1.39	2.33	0.0726	2.16	4.45	0.218	0.112	1.36
Nickel	0.124	0.203	1.44	0.0338	0.203	0.326	0.0753	0.1 U	0.109
Potassium	93.1	125.0	70.5	3.4	385.0	477.0	110.0	7.2	42.1
Selenium	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.1000 U	0.0200 U	0.1000 U	0.0200 U
Silver	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0500 U	0.0100 U
Sodium	1960	3030	2080	23.3	2290	3150	1660	1450	507
Thallium	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.1000 UJ	0.0200 UJ	0.1000 UJ	0.0200 UJ
Vanadium	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0500 U	0.0100 U
Zinc	0.222	1.8	4.1	0.02 U	2.58	3.01	0.108	2.03	0.111
Mercury	0.0002 U	0.00044	0.0002 U	0.0002 U	0.0002	0.00029	0.0002 U	0.0002 U	0.0002 U
Volatile Organic Compounds	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/L	ug/L
1,1,1-Trichloroethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
1,1,2,2-Tetrachloroethane	50 U	50 U	50 U	5 U	100 U	100 U	100 U	100 U	50 U
1,1,2-Trichloroethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
1,1-Dichloroethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
1,1-Dichloroethene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
1,2,4-Trichlorobenzene	50 U	50 U	50 U	5 U	100 U	100 U	100 U	100 U	50 U
1,2-Dibromo-3-chloropropane	50 U	50 U	50 U	5 U	100 U	100 U	100 U	100 U	50 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	CT-6-S	CT-7	CT-8	DAF-S	DP-1-S LAYER A	DP-1-S LAYER B	DP-2-S	F237	FA-S
1,2-Dibromoethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Volatile Organic Compounds (Cont.)	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/kg**	**ug/L**	**ug/L**
1,2-Dichlorobenzene	50 U	50 U	50 U	5 U	560	100 U	100 U	100 U	50 U
1,2-Dichloroethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
1,2-Dichloropropane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
1,3-Dichlorobenzene	50 U	50 U	50 U	5 U	100 U	100 U	100 U	100 U	50 U
1,4-Dichlorobenzene	50 U	50 U	50 U	5 U	100 U	780	100 U	100 U	50 U
2-Butanone	440	100 U	100 U	10 U	350	970	200 J	200 U	100 U
2-Hexanone	100 U	100 U	100 U	10 U	200 U	200 U	200 UJ	200 U	100 U
4-Methyl-2-pentanone	290	300	400	10 U	480	200 U	200 UJ	200 U	100 U
Acetone	3000	3700	1500	20 UJ	28000	52000	7300 J	400 U	3700
Benzene	50 U	370	82	5 U	920	1600	120 J	100 U	50 U
Bromodichloromethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Bromoform	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Bromomethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Carbon disulfide	91	50 U	200	5 U	100 U	550	360 J	100 U	74
Carbon tetrachloride	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Chlorobenzene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Chloroethane	100 U	100 U	100 U	10 U	200 U	200 U	200 UJ	200 U	100 U
Chloroform	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Chloromethane	100 U	100 U	100 U	10 U	200 U	200 U	200 UJ	200 U	100 U
cis-1,2-Dichloroethene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
cis-1,3-Dichloropropene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Cyclohexane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Dibromochloromethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Dichlorodifluoromethane	100 U	100 U	100 U	10 UJ	200 U	200 U	200 UJ	200 U	100 U
Ethylbenzene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Freon-113	100 U	100 U	100 U	10 U	200 U	200 U	200 UJ	200 U	100 U
Isopropylbenzene	50 U	50 U	50 U	5 U	420	770	100 U	100 U	50 U
m,p-Xylene	100 U	100 U	100 U	10 U	200 U	240	200 UJ	200 U	100 U
Methyl acetate	50 UJ	50 U	50 U	5 UJ	100 UJ	100 UJ	100 UJ	100 U	50 U
Methyl tert-butyl ether	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Methylcyclohexane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Methylene chloride	50 U	50 UJ	50 UJ	5 U	100 U	100 U	100 UJ	100 UJ	50 UJ
o-Xylene	50 U	50 U	50 U	5 U	400	440	100 UJ	100 U	50 U
Styrene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Tetrachloroethene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Toluene	50 U	50 U	50 U	5 U	100 U	130	100 UJ	100 U	50 U
trans-1,2-Dichloroethene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
trans-1,3-Dichloropropene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Trichloroethene	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	CT-6-S	CT-7	CT-8	DAF-S	DP-1-S LAYER A	DP-1-S LAYER B	DP-2-S	F237	FA-S
Trichlorofluoromethane	50 U	50 U	50 U	5 U	100 U	100 U	100 UJ	100 U	50 U
Vinyl chloride	20 U	20 U	20 U	2 U	40 U	40 U	40 UJ	40 U	20 U
Semivolatile Organic Compounds	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1'-Biphenyl	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
2,4,5-Trichlorophenol	250 U	2500 U	2500 U	250 U	2500 UJ	12500 UJ	250 U	250 U	2500 U
2,4,6-Trichlorophenol	100 U	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
2,4-Dichlorophenol	100 U	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
2,4-Dimethylphenol	100 U	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
2,4-Dinitrophenol	250 U	2500 U	2500 U	250 U	2500 UJ	12500 UJ	250 U	250 U	2500 U
2,4-Dinitrotoluene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
2,6-Dinitrotoluene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
2-Chloronaphthalene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
2-Chlorophenol	100 U	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
2-Methylnaphthalene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
2-Methylphenol	100 U	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
2-Nitroaniline	250 U	2500 U	2500 U	250 U	2500 UJ	12500 U	250 U	250 U	2500 U
2-Nitrophenol	100 U	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
3,3'-Dichlorobenzidine	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
3-Nitroaniline	250 U	2500 U	2500 U	250 U	2500 UJ	12500 U	250 U	250 U	2500 U
4,6-Dinitro-2-methylphenol	250 U	2500 U	2500 U	250 U	2500 UJ	12500 UJ	250 U	250 U	2500 U
4-Bromophenyl phenyl ether	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
4-Chloro-3-methylphenol	100 U	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
4-Chloroaniline	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
4-Chlorophenyl phenyl ether	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
4-Methylphenol	1700	1000 U	1000 U	100 U	1000 UJ	5000 UJ	100 U	100 U	1000 U
4-Nitroaniline	250 U	2500 U	2500 U	250 U	2500 UJ	12500 U	250 U	250 U	2500 U
4-Nitrophenol	250 U	2500 U	2500 U	250 U	2500 UJ	12500 UJ	250 U	250 U	2500 U
Acenaphthene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Acenaphthylene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Acetophenone	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Anthracene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Atrazine	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Benz(a)anthracene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Benzaldehyde	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Benzo(a)pyrene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Benzo(b)fluoranthene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Benzo(g,h,i)perylene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Benzo(k)fluoranthene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Bis(2-chloroethoxy)methane	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Bis(2-chloroethyl)ether	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Bis(2-chloroisopropyl)ether	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	CT-6-S	CT-7	CT-8	DAF-S	DP-1-S LAYER A	DP-1-S LAYER B	DP-2-S	F237	FA-S
Bis(2-ethylhexyl)phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Butyl benzyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Caprolactam	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Semivolatile Organic Compounds (Cont.)	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Carbazole	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Chrysene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Dibenz(a,h)anthracene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Dibenzofuran	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Diethyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5700	100 U	100 U	1000 U
Dimethyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	510	100 U	1000 U
Di-n-butyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	12000	100 U	100 U	1000 U
Di-n-octyl phthalate	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Fluoranthene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Fluorene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Hexachlorobenzene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Hexachlorobutadiene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Hexachlorocyclopentadiene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Hexachloroethane	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Indeno(1,2,3-cd)pyrene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Isophorone	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	150	1000 U
Naphthalene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Nitrobenzene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
N-Nitrosodi-n-propylamine	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
N-Nitrosodiphenylamine	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Pentachlorophenol	250 U	2500 U	2500 U	250 U	2500 UJ	12000 UJ	250 U	250 U	2500 U
Phenanthrene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U
Phenol	20000	48000 J	15000 J	100 U	1000 UJ	12000 J	1300	260	1000 U
Pyrene	100 U	1000 U	1000 U	100 U	1000 UJ	5000 U	100 U	100 U	1000 U

Notes:
J - The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L - Micrograms per liter
mg/Kg - Milligrams per kilogram
mg/L - Milligrams per liter
NA - The analyte was not analyzed for
TB-1 - Trip blank
TCLP Toxicity characteristic leaching procedure
U Analyte was analyzed for but not detected at or above the associated value
UJ - Analyte was analyzed for but not detected at or above the associated value, which is estimated

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	G107D	G300D	NAOH	OP-4-S	RW-1-S	RW-2-S	SH-1-S	SH-2-S	SH-3-S
TCLP Metals (mg/L)									
Arsenic	0.250 U	0.250 U	NA	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
Barium	0.500 U	0.500 U	NA	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Cadmium	0.0250 U	0.0250 U	NA	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Chromium	0.0500 U	0.0500 U	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.3020	0.0500 U
Lead	0.0500 U	0.0724	NA	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0690	0.0500 U
Selenium	0.100 U	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
Silver	0.0250 U	0.0250 U	NA	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U	0.0250 U
Mercury	0.00400 U	0.00400 U	NA	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U	0.00400 U
Metals	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Aluminum	2.22 J	1 UJ	2 UJ	2.9 J	0.795 J	0.948 J	1.48 J	400 J	0.746 J
Antimony	0.0200 U	0.1000 U	0.2000 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Arsenic	0.0500 U	0.2500 U	0.5000 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Barium	0.175 J	0.1 UJ	0.2 UJ	0.0733 J	0.02 UJ	0.0221 J	0.095 J	0.0461 J	0.0455 J
Beryllium	0.0100 U	0.0500 U	0.1000 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cadmium	0.0050 U	0.0250 U	0.0500 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0177	0.0050 U
Calcium	182 J	8.73 J	528 J	420 J	381 J	770 J	473 J	360 J	405 J
Chromium	0.0100 U	0.0500 U	0.1000 U	0.0253	0.0100 U	0.0100 U	0.0276	0.3430	0.0292
Cobalt	0.0200 U	0.1000 U	0.0200 U	0.0250	0.0200 U	0.0200 U	0.0301	0.0716	0.0200 U
Copper	0.13	0.05 U	0.18	0.45	0.0488	0.119	0.172	10.9	0.0662
Iron	140	5.47	20.5	116	19.1	4.47	68.2	700	5.59
Lead	0.0100 U	0.0500 U	0.1000 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0689	0.0100 U
Magnesium	26.1	1.25	42.2	49.7	7.72	4.56	59.6	114	45.5
Manganese	3.09	0.123	2.77	6.42	0.343	0.411	3.87	9.71	2.3
Nickel	0.139	0.1 U	0.2 U	0.374	0.0718	0.0475	0.223	0.371	0.145
Potassium	94.1	8.3	62.3	216.0	82.3	32.4	249.0	312.0	367.0
Selenium	0.0200 U	0.1000 U	0.2000 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Silver	0.0100 U	0.0500 U	0.1000 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Sodium	3640	1120	727	2780	1660	1550	3390	3380	4170
Thallium	0.0200 UJ	0.1000 UJ	0.2000 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.0200 UJ
Vanadium	0.0100 U	0.0500 U	0.1000 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Zinc	1.38	0.7	0.425	4.05	0.38	0.766	4.67	13.8	0.437
Mercury	0.0002 U	0.0016 U	0.0016 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Volatile Organic Compounds	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1,1-Trichloroethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1,2,2-Tetrachloroethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1,2-Trichloroethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2,4-Trichlorobenzene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dibromo-3-chloropropane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	G107D	G300D	NAOH	OP-4-S	RW-1-S	RW-2-S	SH-1-S	SH-2-S	SH-3-S
1,2-Dibromoethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Volatile Organic Compounds (Cont.)	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,2-Dichlorobenzene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloropropane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,3-Dichlorobenzene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
1,4-Dichlorobenzene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	180	200 U	200 U	2200	440	100 U	380	220	400
2-Hexanone	100 U	200 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U
4-Methyl-2-pentanone	100 U	200 U	850	510	340	100 U	410	420	420
Acetone	8600	400 U	6100	51000 J	10000	1100	34000	21000	270000 J
Benzene	50 U	100 U	500	1200	160	50 U	860	790	290
Bromodichloromethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Bromoform	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Bromomethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Carbon disulfide	50 U	100 U	770	50 U	50 U	50 U	50 U	50 U	50 U
Carbon tetrachloride	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Chlorobenzene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloroethane	100 U	200 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U
Chloroform	50 U	100 U	100 U	93	50 U	50 U	50 U	50 U	50 U
Chloromethane	100 U	200 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U
cis-1,2-Dichloroethene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
cis-1,3-Dichloropropene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Cyclohexane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Dibromochloromethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Dichlorodifluoromethane	100 U	200 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U
Ethylbenzene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Freon-113	100 U	200 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U
Isopropylbenzene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
m,p-Xylene	100 U	200 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U
Methyl acetate	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Methyl tert-butyl ether	50 U	100 U	100 U	89	50 U	50 U	78	50 U	50 U
Methylcyclohexane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Methylene chloride	50 UJ	100 UJ	100 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ
o-Xylene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Styrene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Tetrachloroethene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Toluene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	54	50 U
trans-1,2-Dichloroethene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
trans-1,3-Dichloropropene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Trichloroethene	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U

PARAMETERS	G107D	G300D	NAOH	OP-4-S	RW-1-S	RW-2-S	SH-1-S	SH-2-S	SH-3-S
Trichlorofluoromethane	50 U	100 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U
Vinyl chloride	20 U	40 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U
Semivolatile Organic Compounds	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
1,1'-Biphenyl	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
2,4,5-Trichlorophenol	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 UJ	2500 UJ
2,4,6-Trichlorophenol	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
2,4-Dichlorophenol	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
2,4-Dimethylphenol	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
2,4-Dinitrophenol	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 UJ	2500 UJ
2,4-Dinitrotoluene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
2,6-Dinitrotoluene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
2-Chloronaphthalene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
2-Chlorophenol	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
2-Methylnaphthalene	1000 U	100 U	1000 U	100 U	190	100 U	1000 U	1000 U	1000 U
2-Methylphenol	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
2-Nitroaniline	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 U	2500 U
2-Nitrophenol	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
3,3'-Dichlorobenzidine	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 UJ	1000 UJ	1000 U
3-Nitroaniline	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 U	2500 U
4,6-Dinitro-2-methylphenol	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 UJ	2500 UJ
4-Bromophenyl phenyl ether	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
4-Chloro-3-methylphenol	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
4-Chloroaniline	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
4-Chlorophenyl phenyl ether	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
4-Methylphenol	1000 U	100 U	3800	100 U	100 U	100 U	1000 U	1000 UJ	1000 UJ
4-Nitroaniline	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 U	2500 U
4-Nitrophenol	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 UJ	2500 UJ
Acenaphthene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Acenaphthylene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Acetophenone	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Anthracene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Atrazine	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Benz(a)anthracene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 UJ	1000 UJ	1000 U
Benzaldehyde	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Benzo(a)pyrene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Benzo(b)fluoranthene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Benzo(g,h,i)perylene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Benzo(k)fluoranthene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Bis(2-chloroethoxy)methane	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Bis(2-chloroethyl)ether	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Bis(2-chloroisopropyl)ether	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U

QUALIFIED DATA SUMMARY TABLES
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PARAMETERS	G107D	G300D	NAOH	OP-4-S	RW-1-S	RW-2-S	SH-1-S	SH-2-S	SH-3-S
Bis(2-ethylhexyl)phthalate	1000 U	100 U	1600	170	100 U	100 U	1000 UJ	1000 UJ	1000 U
Butyl benzyl phthalate	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 UJ	1000 UJ	1000 U
Caprolactam	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Semivolatile Organic Compounds (Cont.)	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Carbazole	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Chrysene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 UJ	1000 UJ	1000 U
Dibenz(a,h)anthracene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Dibenzofuran	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Diethyl phthalate	1000 U	100 U	1000 U	320	100 U	100 U	1000 U	1000 U	2100
Dimethyl phthalate	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Di-n-butyl phthalate	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1500	1000 U
Di-n-octyl phthalate	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Fluoranthene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Fluorene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Hexachlorobenzene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Hexachlorobutadiene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Hexachlorocyclopentadiene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Hexachloroethane	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Indeno(1,2,3-cd)pyrene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Isophorone	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Naphthalene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Nitrobenzene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
N-Nitrosodi-n-propylamine	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
N-Nitrosodiphenylamine	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Pentachlorophenol	2500 U	250 U	2500 U	250 U	250 U	250 U	2500 U	2500 UJ	2500 UJ
Phenanthrene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 U	1000 U	1000 U
Phenol	30000 J	170	1000 U	180000 J	11000	770	14000	1000 UJ	40000 J
Pyrene	1000 U	100 U	1000 U	100 U	100 U	100 U	1000 UJ	1000 UJ	1000 U

Notes:

J The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L = Micrograms per liter
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = The analyte was not analyzed for
TB-1 = Trip blank
TCLP = Toxicity characteristic leaching procedure
U Analyte was analyzed for but not detected at or above the associated value
UJ = Analyte was analyzed for but not detected at or above the associated value, which is estimated

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	SH-4-S	SODIUM HYDROXIDE	SS-1-S	SS-2-S	ST-1	SULFURIC ACID	TB-1
TCLP Metals (mg/L)							
Arsenic	0.250 U	NA	0.250 U	0.250 U	NA	NA	NA
Barium	0.500 U	NA	0.500 U	0.500 U	NA	NA	NA
Cadmium	0.0250 U	NA	0.0250 U	0.0250 U	NA	NA	NA
Chromium	0.0500 U	NA	0.0500 U	0.0500 U	NA	NA	NA
Lead	0.0500 U	NA	0.0500 U	0.0500 U	NA	NA	NA
Selenium	0.100 U	NA	0.100 U	0.100 U	NA	NA	NA
Silver	0.0250 U	NA	0.0250 U	0.0250 U	NA	NA	NA
Mercury	0.00400 U	NA	0.00400 U	0.00400 U	NA	NA	NA
Metals	**mg/kg**	**mg/L**	**mg/L**	**mg/kg**	**mg/L**	**mg/L**	**NA**
Aluminum	65	2 UJ	63.7 J	390	268 J	3.2 J	NA
Antimony	1.0000 U	0.2000 U	0.0200 U	0.9778 U	0.2000 U	0.2000 U	NA
Arsenic	1.0000 U	0.5000 U	0.0500 U	0.9778 U	0.5000 U	0.5000 U	NA
Barium	1.2	0.2 UJ	0.281 J	4.8 J	2.4 J	0.2 UJ	NA
Beryllium	0.5000 U	0.1000 U	0.0100 U	0.4889 U	0.1000 U	0.1000 U	NA
Cadmium	0.5000 U	0.0500 U	0.0064	0.4889 U	0.0806	0.0500 U	NA
Calcium	610	2.86 J	503 J	510	480 J	8.49 J	NA
Chromium	0.5000 U	0.1000 U	0.0299	0.4889 U	6.3800	0.9310	NA
Cobalt	0.5000 U	0.2000 U	0.0200 U	0.4889 U	0.2000 U	0.2000 U	NA
Copper	13	0.1 U	1.12	18	14.4	0.1 U	NA
Iron	160	3.58	221	100	2200	20	NA
Lead	14.0000	0.1000 U	0.0100 U	0.9778 U	0.4310	0.1000 U	NA
Magnesium	59	1 U	60.5	18	64.2	2.81	NA
Manganese	7.9	0.05 U	5.76	3.5	29.3	0.23	NA
Nickel	1 U	0.2 U	0.137	0.97784 U	3.43	0.738	NA
Potassium	320.0	113.0	115.0	890.0	76.3	5.0 U	NA
Selenium	1.0000 U	0.2000 U	0.0200 U	0.9778 U	0.2000 U	0.7250	NA
Silver	0.5000 U	0.1000 U	0.0100 U	0.4889 U	0.1000 U	0.1000 U	NA
Sodium	1600	188000	2040	6800	1780	10 U	NA
Thallium	1.0000 U	0.2000 UJ	0.0200 UJ	0.9778 U	0.2000 UJ	0.2000 UJ	NA
Vanadium	1.0000 U	0.1000 U	0.0100 U	1.9000	0.1000 U	0.1000 U	NA
Zinc	2.8 J	0.2 U	9.16	2.3 J	21	0.2 U	NA
Mercury	0.00979 U	0.00218	0.0002 U	0.00982 U	0.00277	0.0057	NA
Volatile Organic Compounds	**ug/kg**	**NA**	**ug/L**	**ug/kg**	**ug/L**	**NA**	**ug/kg**
1,1,1-Trichloroethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,1,2,2-Tetrachloroethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,1,2-Trichloroethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,1-Dichloroethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,1-Dichloroethene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,2,4-Trichlorobenzene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,2-Dibromo-3-chloropropane	2500 U	NA	50 U	2500 U	100 U	NA	5 U

QUALIFIED DATA SUMMARY TABLES
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PARAMETERS	SH-4-S	SODIUM HYDROXIDE	SS-1-S	SS-2-S	ST-1	SULFURIC ACID	TB-1
1,2-Dibromoethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Volatile Organic Compounds (Cont.)	**ug/kg**	**NA**	**ug/L**	**ug/kg**	**ug/L**	**NA**	**ug/kg**
1,2-Dichlorobenzene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,2-Dichloroethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,2-Dichloropropane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,3-Dichlorobenzene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
1,4-Dichlorobenzene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
2-Butanone	5000 U	NA	140	5000 U	200 U	NA	10 UJ
2-Hexanone	5000 U	NA	100 U	5000 U	200 U	NA	10 UJ
4-Methyl-2-pentanone	5000 U	NA	300	5000 U	200 U	NA	10 U
Acetone	74000	NA	19000	18000	860	NA	20 UJ
Benzene	2600	NA	900	2500 U	2300	NA	5 U
Bromodichloromethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Bromoform	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Bromomethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Carbon disulfide	5000 U	NA	110	5000 U	850	NA	5 U
Carbon tetrachloride	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Chlorobenzene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Chloroethane	5000 U	NA	100 U	5000 U	200 U	NA	10 U
Chloroform	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Chloromethane	5000 U	NA	100 U	5000 U	200 U	NA	10 U
cis-1,2-Dichloroethene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
cis-1,3-Dichloropropene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Cyclohexane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Dibromochloromethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Dichlorodifluoromethane	5000 U	NA	100 U	5000 U	200 U	NA	10 UJ
Ethylbenzene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Freon-113	5000 U	NA	100 U	5000 U	200 U	NA	10 U
Isopropylbenzene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
m,p-Xylene	5000 U	NA	100 U	5000 U	200 U	NA	10 U
Methyl acetate	2500 U	NA	50 U	2500 U	100 U	NA	5 UJ
Methyl tert-butyl ether	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Methylcyclohexane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Methylene chloride	2500 UJ	NA	50 UJ	2500 UJ	100 UJ	NA	5 U
o-Xylene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Styrene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Tetrachloroethene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Toluene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
trans-1,2-Dichloroethene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
trans-1,3-Dichloropropene	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Trichloroethene	2500 U	NA	50 U	2500 U	100 U	NA	5 U

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	SH-4-S	SODIUM HYDROXIDE	SS-1-S	SS-2-S	ST-1	SULFURIC ACID	TB-1
Trichlorofluoromethane	2500 U	NA	50 U	2500 U	100 U	NA	5 U
Vinyl chloride	5000 U	NA	20 U	5000 U	40 U	NA	5 U
Semivolatile Organic Compounds	**mg/kg**	**ug/L**	**ug/L**	**mg/kg**	**ug/L**	**ug/L**	**NA**
1,1'-Biphenyl	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2,4,5-Trichlorophenol	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
2,4,6-Trichlorophenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2,4-Dichlorophenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2,4-Dimethylphenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2,4-Dinitrophenol	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
2,4-Dinitrotoluene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2,6-Dinitrotoluene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2-Chloronaphthalene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2-Chlorophenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2-Methylnaphthalene	93 U	1000 U	1000 U	440	2000	1000 U	NA
2-Methylphenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
2-Nitroaniline	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
2-Nitrophenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
3,3'-Dichlorobenzidine	630 U	1000 U	1000 UJ	650 U	1000 U	1000 U	NA
3-Nitroaniline	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
4,6-Dinitro-2-methylphenol	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
4-Bromophenyl phenyl ether	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
4-Chloro-3-methylphenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
4-Chloroaniline	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
4-Chlorophenyl phenyl ether	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
4-Methylphenol	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
4-Nitroaniline	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
4-Nitrophenol	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
Acenaphthene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Acenaphthylene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Acetophenone	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Anthracene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Atrazine	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Benz(a)anthracene	93 U	1000 U	1000 UJ	97.0874 U	1000 U	1000 U	NA
Benzaldehyde	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Benzo(a)pyrene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Benzo(b)fluoranthene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Benzo(g,h,i)perylene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Benzo(k)fluoranthene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Bis(2-chloroethoxy)methane	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Bis(2-chloroethyl)ether	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Bis(2-chloroisopropyl)ether	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA

QUALIFIED DATA SUMMARY TABLES
LABORATORY LOT NO. 0408B38

PARAMETERS	SH-4-S	SODIUM HYDROXIDE	SS-1-S	SS-2-S	ST-1	SULFURIC ACID	TB-1
Bis(2-ethylhexyl)phthalate	93 U	1000 U	1000 UJ	97.0874 U	1000 U	1100	NA
Butyl benzyl phthalate	93 U	1000 U	1000 UJ	97.0874 U	1000 U	1000 U	NA
Caprolactam	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Semivolatile Organic Compounds (Cont.)	**mg/kg**	**ug/L**	**ug/L**	**mg/kg**	**ug/L**	**ug/L**	**NA**
Carbazole	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Chrysene	93 U	1000 U	1000 UJ	97.0874 U	1000 U	1000 U	NA
Dibenz(a,h)anthracene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Dibenzofuran	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Diethyl phthalate	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Dimethyl phthalate	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Di-n-butyl phthalate	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Di-n-octyl phthalate	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Fluoranthene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Fluorene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Hexachlorobenzene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Hexachlorobutadiene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Hexachlorocyclopentadiene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Hexachloroethane	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Indeno(1,2,3-cd)pyrene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Isophorone	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Naphthalene	93 U	1000 U	1000 U	170	1000 U	1000 U	NA
Nitrobenzene	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
N-Nitrosodi-n-propylamine	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
N-Nitrosodiphenylamine	93 U	1000 U	1000 U	97.0874 U	1000 U	1000 U	NA
Pentachlorophenol	470 U	2500 U	2500 U	490 U	2500 U	2500 U	NA
Phenanthrene	93 U	1000 U	1000 U	140	1000 U	1000 U	NA
Phenol	93 U	1000 U	18000	97.0874 U	1000 U	1000 U	NA
Pyrene	93 U	1000 U	1000 UJ	97.0874 U	1000 U	1000 U	NA

Notes:
J The associated value is the approximate concentration of the analyte in the sample.
ug/Kg = Micrograms per kilogram
ug/L - Micrograms per liter
mg/Kg = Milligrams per kilogram
mg/L - Milligrams per liter
NA = The analyte was not analyzed for
TB-1 = Trip blank
TCLP = Toxicity characteristic leaching procedure
U = Analyte was analyzed for but not detected at or above the associated value
UJ - Analyte was analyzed for but not detected at or above the associated value, which is estimated

Reference 8

About Digital Sanborn Maps

ProQuest Information and Learning's **Digital Sanborn Maps, 1867-1970** provides academic and public libraries digital access to more than 660,000 large-scale maps of more than 12,000 American towns and cities. In electronic form, Sanborn Maps take on much improved value over the microfilm versions of the same maps, allowing for greater flexibility of use and improved viewing possibilities. Users have the ability to easily manipulate the maps, magnify and zoom in on specific sections, and layer maps from different years.

Sanborn fire insurance maps are the most frequently consulted maps in both public and academic libraries. Sanborn maps are valuable historical tools for urban specialists, social historians, architects, geographers, genealogists, local historians, planners, environmentalists and anyone who wants to learn about the history, growth, and development of American cities, towns, and neighborhoods. They are large-scale plans containing data that can be used to estimate the potential risk for urban structures. This includes information such as the outline of each building, the size, shape and construction materials, heights, and function of structures, location of windows and doors. The maps also give street names, street and sidewalk widths, property boundaries, building use, and house and block numbers. Seven or eight different editions represent some areas.

Textual information on construction details (for example, steel beams or reinforced walls) is often given on the plans while shading indicates different building materials. Extensive information on building use is given, ranging from symbols for generic terms such as stable, garage, and warehouse to names of owners of factories and details on what was manufactured in them. In the case of large factories or commercial buildings, even individual rooms and the uses to which they were put are recorded on the maps. Other features shown include pipelines, railroads, wells, dumps, and heavy machinery. Click here to access a key provided by the Sanborn Map Company. (**Note:** Because the key is a detailed file, it must be large so that you can view it completed. As a result, it may take a while for the key to load onto your computer screen.)

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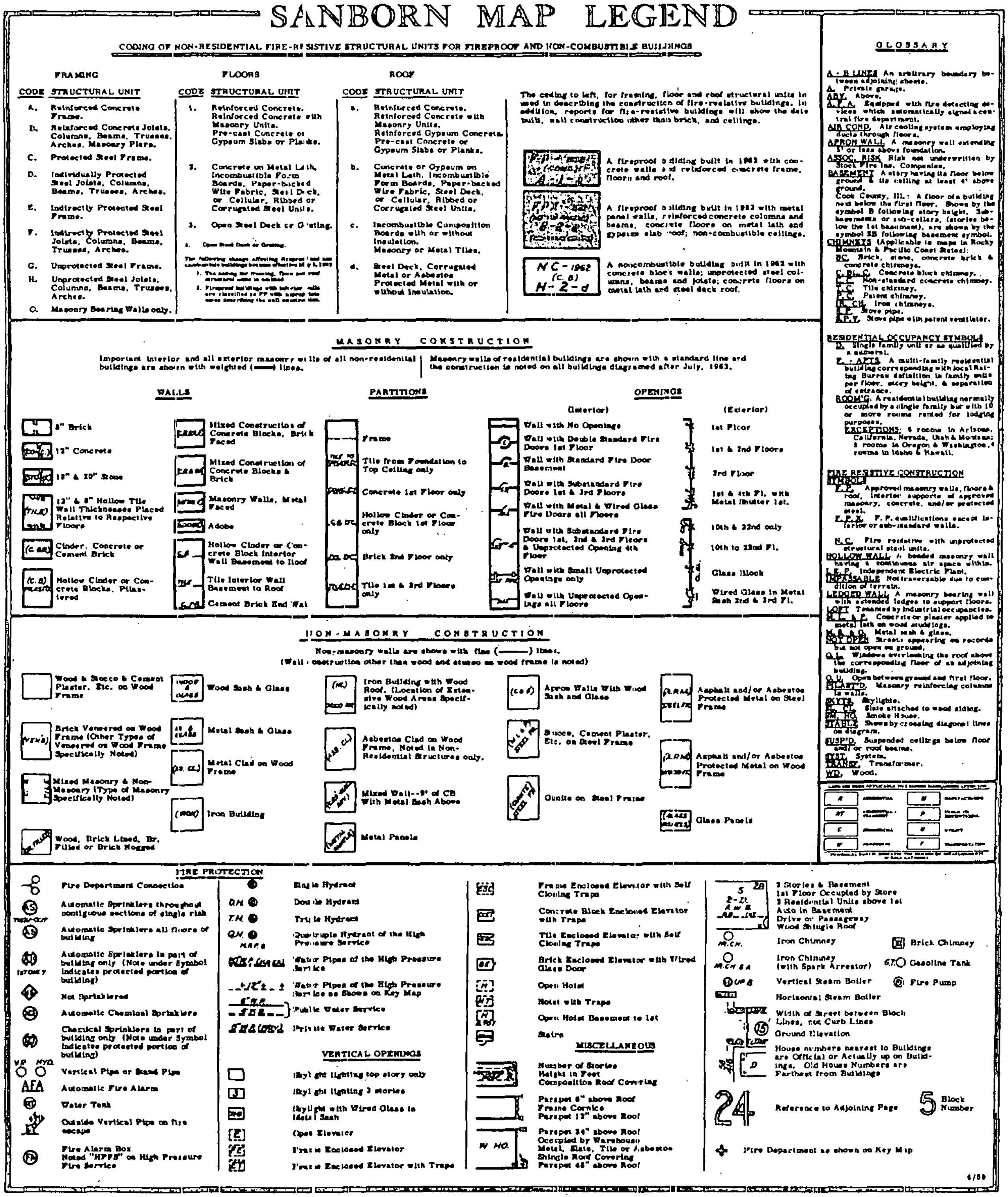


Map legend for understanding black-and-white editions of fire insurance maps issued in recent years by the Sanborn Map Company.

KEY

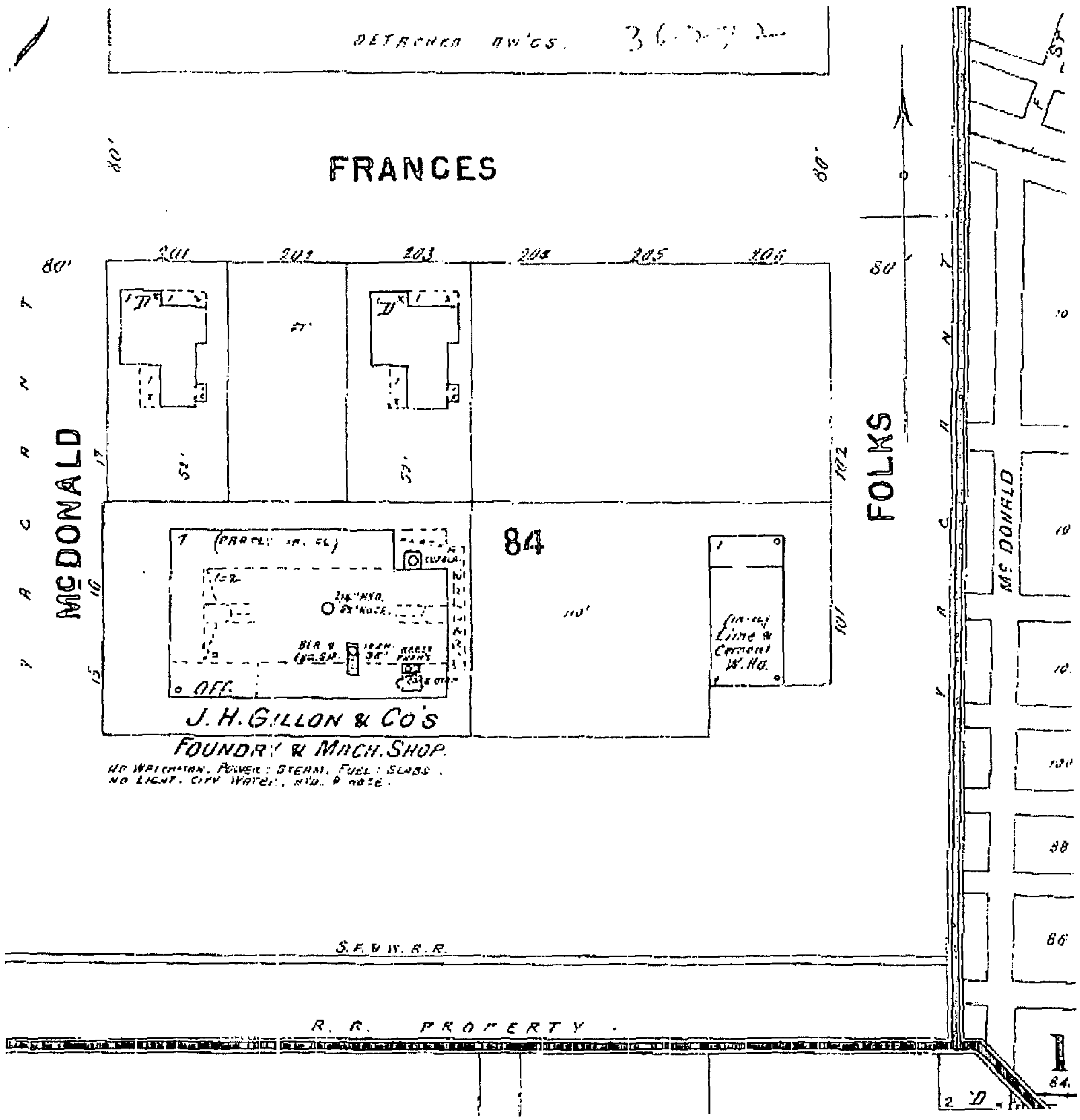
WALL 12" / BRICK 12" / PARTIAL 12"	Fire proof construction. (OR FIRE RESISTIVE CONSTN)
ADOBE	Adobe building.
HEIGHT OF BUILDING IN FEET FROM GROUND TO ROOF LINE	Stone building.
(C. BR.)	Concrete, lime, cinder or cement brick
(C. B.)	Hollow concrete or cement block constn
(CONC.)	Concrete or reinforced concrete constn
(TILE)	Tile building.
NUMBER OF STORIES	Brick building with frame cornice.
	" " " stone front.
	" " " frame side. (DIVIDED BY FRAME PARTITION)
(VENd)	Brick veneered building.
BRICK 1ST	" and frame building.
FRAME, BRICK LINED	Frame building, brick lined.
F FLAT S STORE	" " metal clad.
D DWELLING	Frame building.
A AUTO B	Iron building.
LOFT	Tenant building occupied by various manufacturing or occupancies
(ASB. CL.)	Frame building covered with asbestos
NON COMBUSTIBLE ROOF COVERED WITH METAL, SLATE, TILE OR ASBESTOS SHINGLES	Brick building with brick or metal cornice.
SKYLIGHT LIGHTING TOP STORY ONLY	Fire wall 6 inches above roof.
3 SKYLIGHT LIGHTING THREE STORIES	" " 12 " " "
W.G. WIRED GLASS SKYLIGHT	" " 18 " " "
FIRE WALL 40 INCHES ABOVE ROOF	" " 36 " " "
	Figures 8,12,16 indicate thickness of wall in inches
	Wall without opening and size in inches.
	Wall with openings on floors as designated.
	Opening with single iron or tin clad door.
	" " double iron " " " doors.
	" " standard fire doors.
W.T. WATER TANK	Openings with wired glass doors
BRICK 1ST	Drive or passage way.
	Stable.
A.	Auto House or private garage.
(C. B.) (C. B. & BR.)	Solid brick with interior walls of C.B. or C.B. and brick mixed.
(C. B. AND CONSTN)	Mixed construction of C.B. and brick with one wall of solid brick.
(C. B. & BR. CONSTN) (BR. FACED)	Mixed construction of C. B. and brick with one wall faced with 4" brick.
(C. B. & BR. CONSTN)	Mixed construction of C. B. and brick throughout.

MANSARD ROOF. DOTS REPRESENT OPENINGS. STEMS INDICATE STORIES, COUNTING FROM LEFT TO RIGHT, LOOKING TOWARD BUILDING.	Window opening in first story.
	Window openings in second and third stories.
	Window openings in second and fourth stories.
	Windows with wired glass.
	Windows with iron or tin clad shutters.
10 TO 22	Window openings tenth to twenty-second stories.
E	Open elevator.
FE	Frame enclosed elevator.
ET	" " " with traps.
ESC	" " " " self closing traps.
CBET	Concrete block enclosed elevator with traps.
TESC	Tile enclosed elevator with self closing traps.
BE	Brick enclosed elev. with wired glass door.
5	Block number.
V.P.	Vertical pipe or stand pipe.
AFA	Automatic fire alarm.
IEP	Independent electric plant.
AS	Automatic sprinklers.
ACS	Automatic chemical sprinklers.
AS 1ST ONLY	Automatic sprinklers in part of building only. (NOTE UNDER SYMBOL INDICATES PROTECTED PORTION OF BUILDING)
NS	Not sprinklered.
	Outside vertical pipe on fire escape.
FA	Fire alarm box.
	Single hydrant.
D.H.	Double "
T.H.	Triple "
Q.H.	Quadruple hydrant of the "High Pressure Fire Service".
H.P.F.S. FA	Fire alarm box of the "High Pressure Fire Service"
H.P.F.S. 12"	Water pipes of the High Pressure Fire Service " " and hydrants of the "High Pressure Fire Service" as shown on key map.
6" W. PIPE	Water pipes and size in inches.
6" W. PIPE (PRIVATE)	Water pipes of private supply
D	House numbers shown nearest to buildings are official or actually up on buildings. Old house numbers shown furthest from buildings.

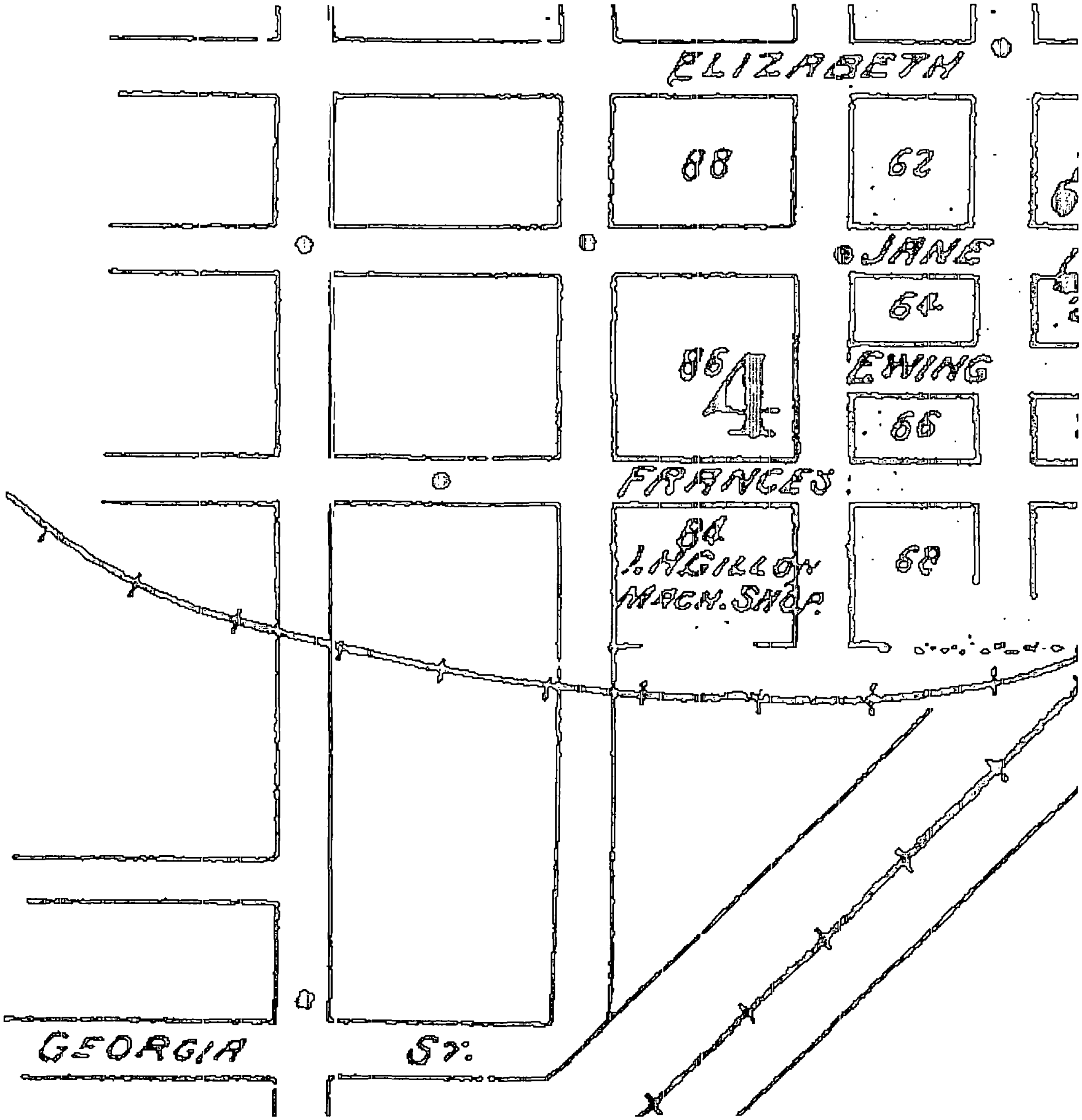
BLOCK 50 CURB LINE LINES	Width of street (BETWEEN BLOCK LINES, NOT CURB LINES)
10 CH.	Iron chimney
	(WITH SPARK ARRESTER)
	Brick chimney.
(15)	Ground elevation.
V.S.B.	Vertical steam boiler.
G.T.	Gasoline tank.
(O. U.)	Open under.
	Siamese fire dept. connection
	Single fire dept. connection
24	Reference to adjoining page.
	Fire engine house, as shown on key map.
	Fire pump.
(36)	Under page number refers to corresponding page of previous edition.

CODING OF STRUCTURAL UNITS FOR FIREPROOF AND NON-COMBUSTIBLE BUILDINGS

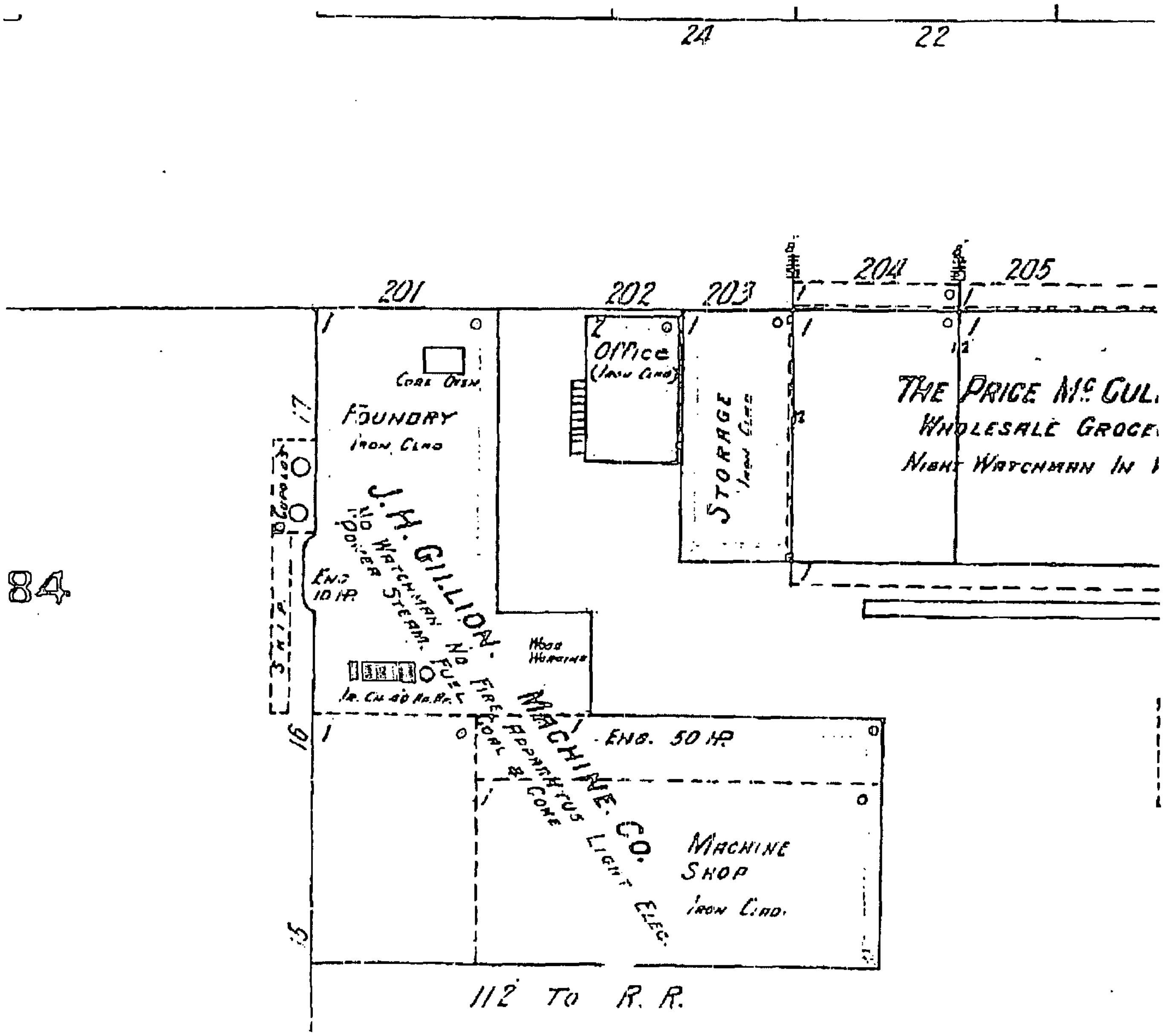
FRAMING		FLOORS		ROOF	
CODE	STRUCTURAL UNIT	CODE	STRUCTURAL UNIT	CODE	STRUCTURAL UNIT
A.	Reinforced Concrete Frame.	1.	Reinforced Concrete. Reinforced Concrete with Masonry Units. Pre-cast Concrete or	a.	Reinforced Concrete. Reinforced Concrete with Masonry Units. Reinforced Gypsum Concrete.
B.	Reinforced Concrete				


DETACHED DW'GS.
FRANCES
MCDONALD
FOLKS
201
202
203
204
205
206
84
OFF.
J.H. GILLON & CO'S
FOUNDRY & MACH. SHOP.
NO WATCHMAN. POWER: STEAM. FUEL: SLABS.
NO LIGHT. CITY WATER. HYD. & HOSE.
Lime & Cement W.Ho.
MC DONALD
S.F.&W. R.R.
R. R. PROPERTY.

1897

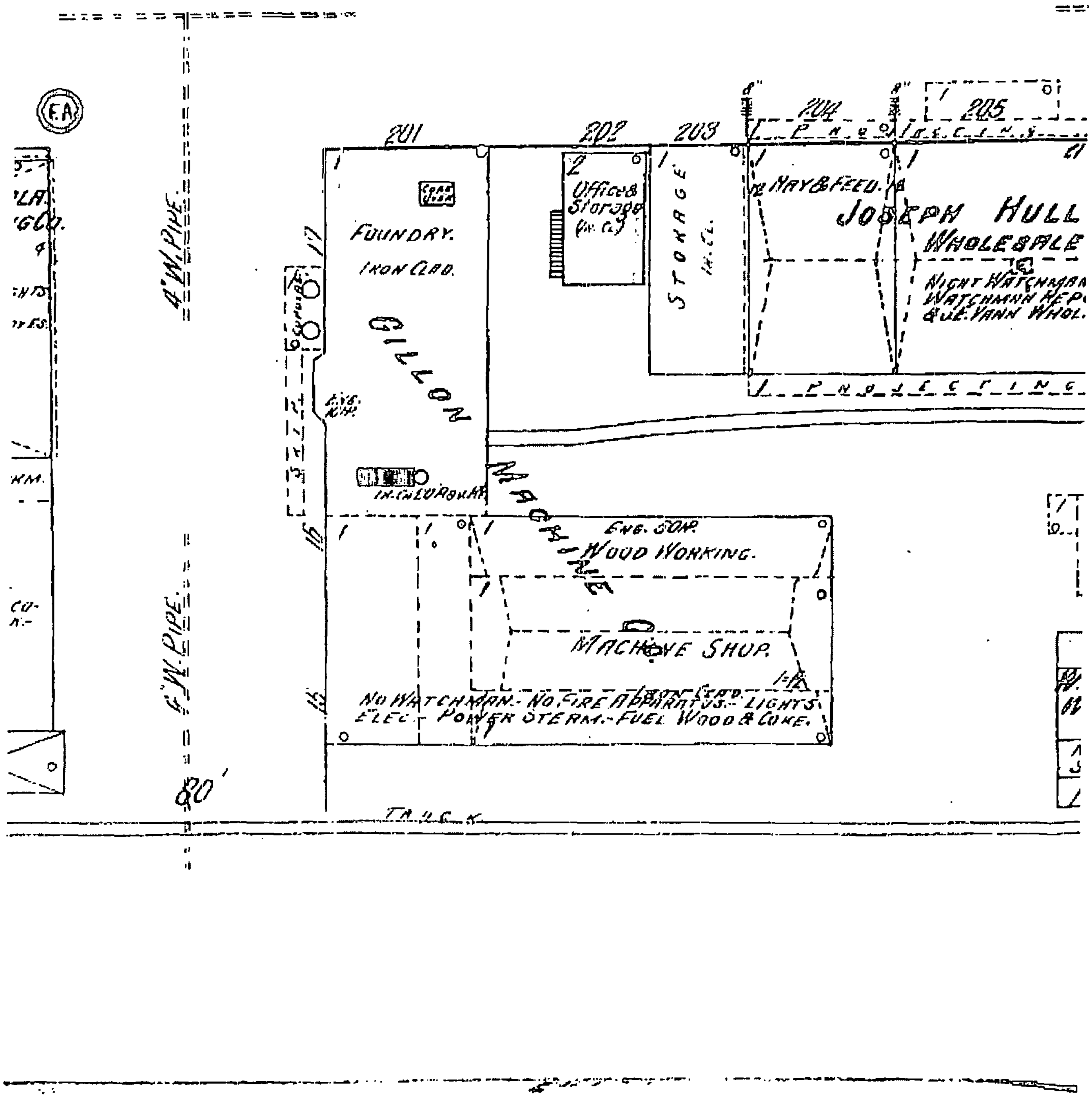

ELIZABETH
88
62
JANE
64
EWING
86
4
66
FRANCES
84
I. H. GILLON
MACH. SHOP
68
GEORGIA
ST.

July 1903

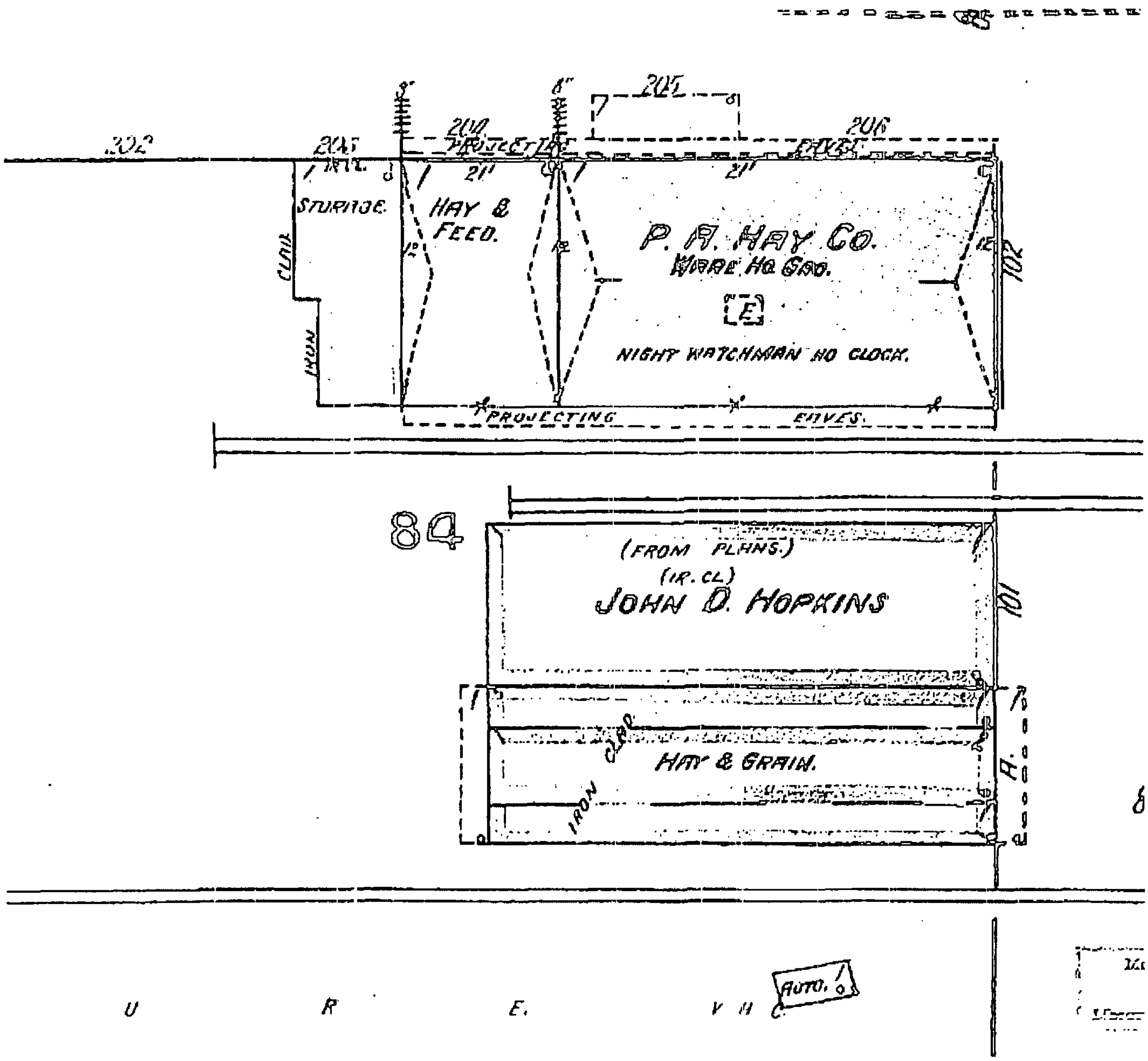


24
22
84
201
202
203
204
205
Office (Iron Clad)
Storage (Iron Clad)
Foundry (Iron Clad)
Core Oven
Eng. 10 HP
Wood Working
Eng. 50 HP
Machine Shop (Iron Clad)
J. H. Gillion Machine Co.
No Watchman
Power Steam
No Fire Apparatus
Fuel Coal & Coke
Light Elec.
The Price McCul.
Wholesale Groce.
Night Watchman In
112 To R. R.

Aug. 1908

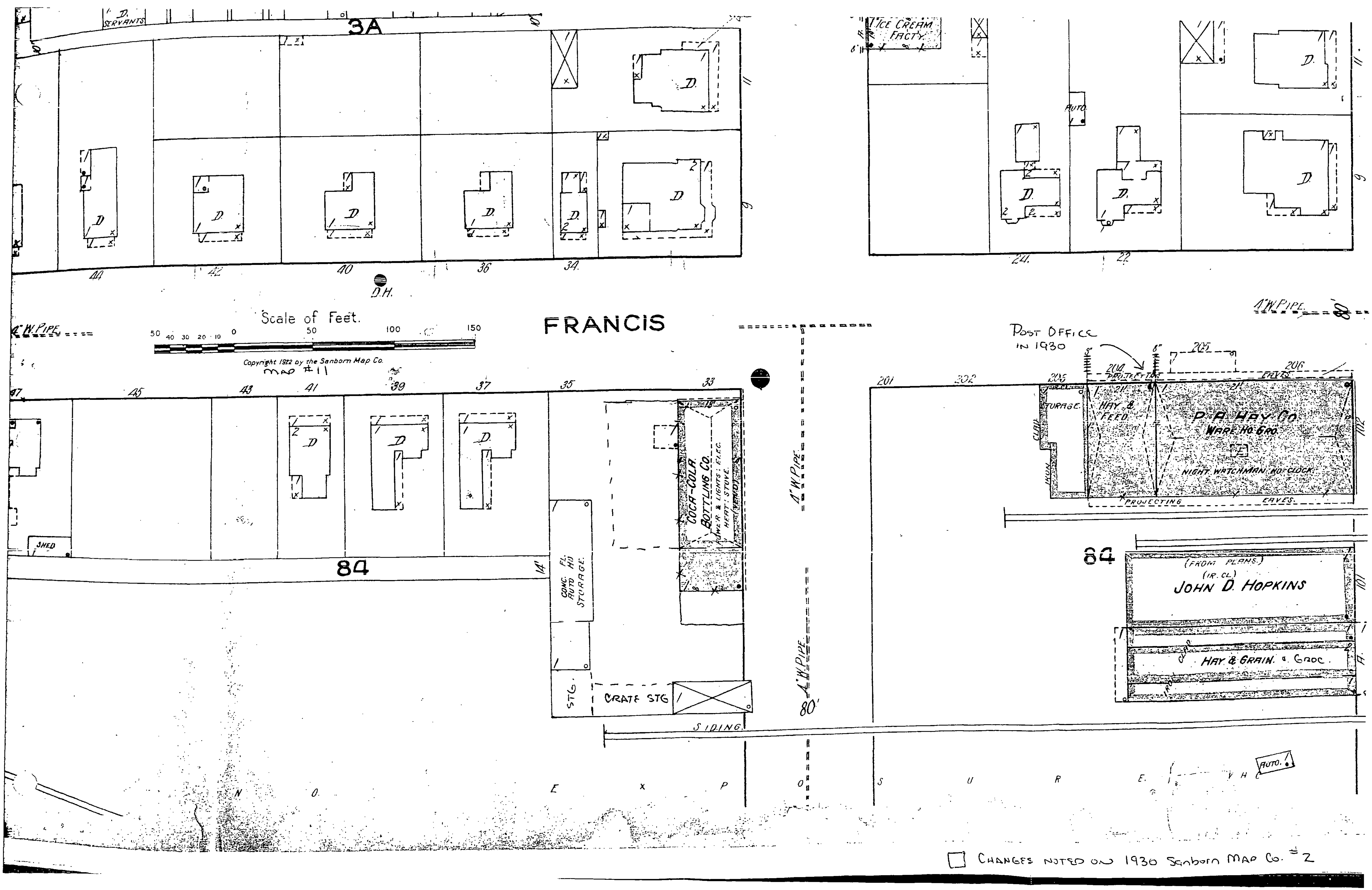

4" W. PIPE.
201
202
203
204
205
FOUNDRY.
IRON CLAD.
GILLON MACHINE
Offices & Storage
STORAGE
HAY & FEED.
JOSEPH HULL
WHOLESALE
WOOD WORKING.
MACHINE SHOP.
No Watchman.- No Fire Apparatus.- Lights
Elec.- Power Steam.- Fuel Wood & Coke.
4" W. PIPE.
80'
TRACK

June 1913



202
204
206
205
PROJECTING
STORAGE
HAY & FEED.
P. A. HAY CO.
WARE HO. GRO.
E
NIGHT WATCHMAN NO CLOCK.
PROJECTING EAVES.
102
84
(FROM PLANS.)
(IR. CL)
JOHN D. HOPKINS
101
HAY & GRAIN.
IRON
AUTO.

MAR. 1922



□ CHANGES NOTED ON 1930 Sanborn Map Co. # 2

GA . . . 613

INSURANCE MAPS OF WAYCROS[S]

Ware County GEORGIA INCLUDING HEBAR[DVILLE]

Published by the Sanborn Map Company

NEW YORK

June 1930

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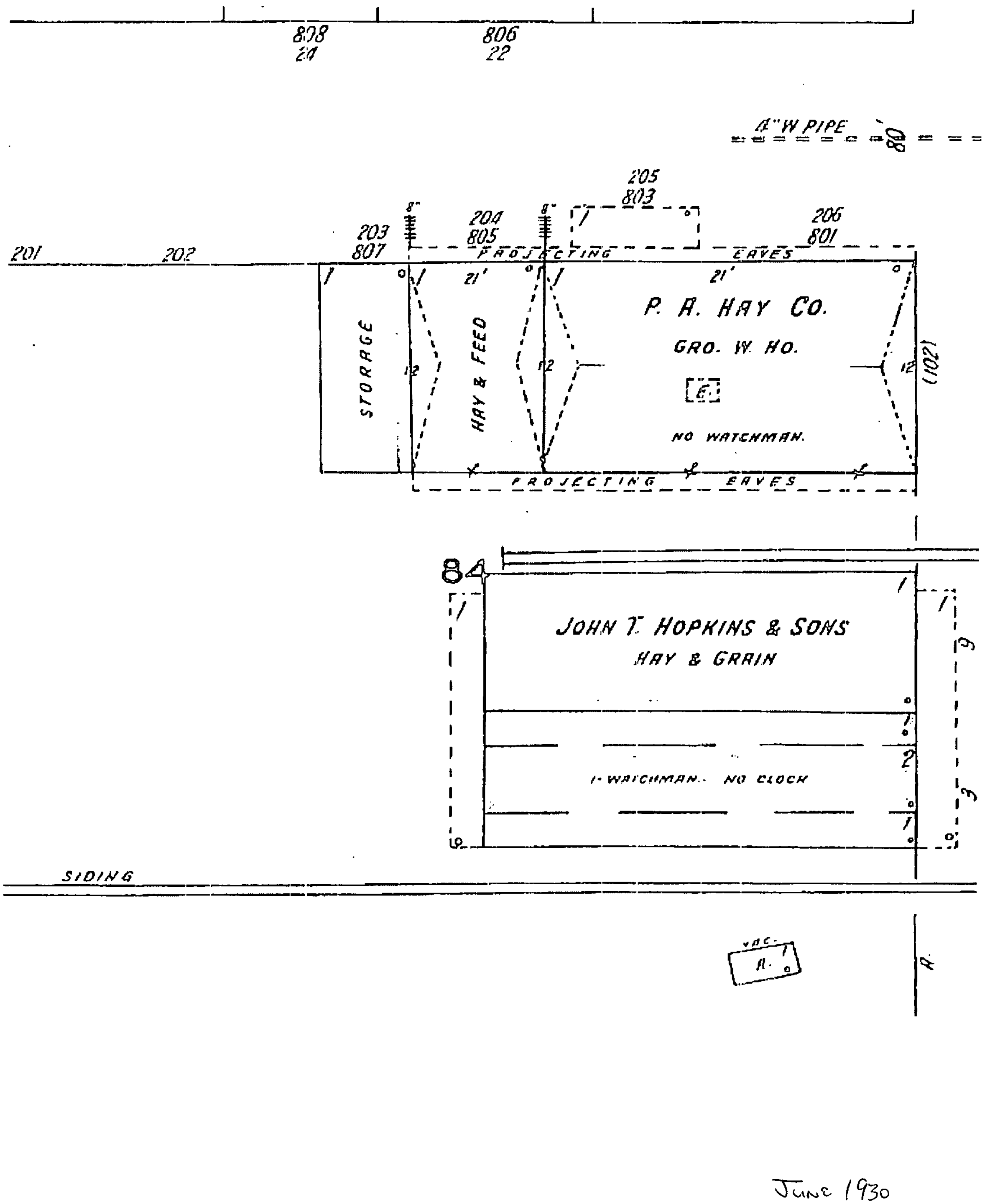
"	610-1000	17
Mary,	300-330	4
"	500-814	*3
"	600-818	*6
"	900-916	*2
"	601-710	*3
"	900-1124	*29
"	1100-1225	*30
"	1200-1225	*28
"	1800-1149	26
Maryland Ave.,		38
Mayo,	310-700	19
Middle, see Maple.		
Miller,	300-465	15
"	500-725	18
Mobley,		22
Montgomery,		33
Mooremount,		33 & 20
Morgan, at Hebardville,		28
Morton Ave.,	900-1122	17
Murphy,		31
" Lane,		31
Railroad,	720-822	*31
"	825-910	25
Reed,	800-416	1
"	430-420	*17
"	501-121	*5
"	620-327	15
Reinhart,	1-210	5
"	400-510	6
"	610-529	10
Rex Alley,		17
Reynolds,	100-815	14
"	410-616	*30
"	401-629	*30
"	401-843	*18
"	612-912	*17
"	901-917	*19
"	1000-1615	10
Rhoda,		32
Riverside Drive,		35
Robert,		27
Rockefeller,		27
Roosevelt Ave.,	1600-1925	30
"	1200-1313	23
Rosebud,	500-1115	24

S

Satilla,	400-410	*19
"	401-411	*21
"	520-700	21
" Lane,	620-645	31
Samuel,	1-200	*19
"	8-208	*18
Sarenze Place (Infirmary),		25
School,		20
Screven Ave.,	100-815	*20
" "	250-619	*21
" "	710-925	21
" "	Haines to Sunnyside	34
" "	Stephens to Gilmore	4
" "	N.S. Gilmore to Lacy	*5
Scruggs,		29 & 31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HAY & FEED
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JOHN T. HOPKINS & SONS
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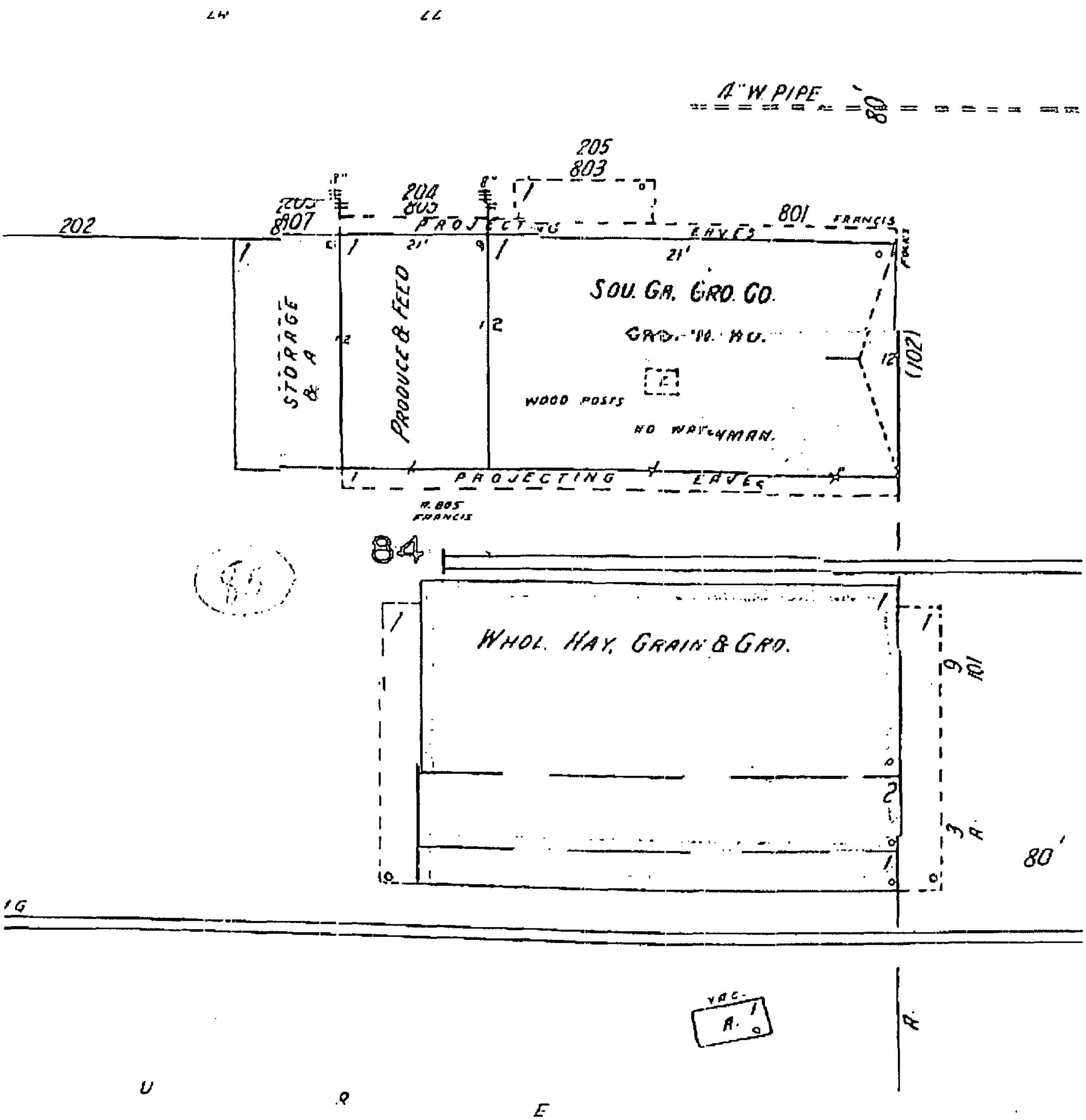

June 1930 - May 1947

Reference 9

GEOSYNTEC CONSULTANTS
9220 Cypress Green Drive
Jacksonville, Florida 32256 • USA
Tel. (904) 739-1600 • Fax (904) 739-1669

DEC 11 2001
HAZARDOUS WASTE MANAGEMENT BRANCH

December 4, 2001

Ms. Verona Barnes
Unit Coordinator/Hazardous Waste Support Unit
Georgia Department of Natural Resources
Suite 1154 East Tower
205 Butler Street, S.E. Floyd Tower
Atlanta, Georgia 30334

Re: Notification of Regulated Waste Activity
BCX Waycross, GA Facility

Dear Ms. Barnes:

On behalf of BCX Corporation, GeoSyntec Consultants (GeoSyntec) requests a GAEPD/USEPA identification number for the proposed BCX waste oil processing and marketing facility to be located in Waycross. Attached is a completed and signed EPA Form 8700-12.

Please contact me should you have any questions.

Sincerely,

ECBates

Edward C. Bates
Associate

cc: Mr. J. Allen Bryson, BCX
Mr. Charles Phelps, BCX
Ms. Elaina Modlin, P.E., GeoSyntec

Notif of Reg Waste Activity doc

Georgia Department of Natural Resources
205 Butler Street, Suite 1154 East Tower, Atlanta, Georgia 30334-4910
Environmental Protection Division
Harold F. Reheis, Director
Hazardous Waste Management Branch
Phone 404/656-7802 FAX 404/651-9425

December 13, 2001

CHARLES PHELPS
BCX WAYCROSS FACILITY
PO BOX 25
WAYCROSS, GA 31502

RE: EPA ID # GAR000030007
3 FOLKS ST
WAYCROSS, WARE COUNTY, GA 31502

Dear CHARLES PHELPS:

We have recently received your notification of regulated waste activity (EPA Form 8700-12).

The above referenced EPA ID number has been assigned to the facility at the address given. This number is site specific and will be used by the Georgia Environmental Protection Division and the US EPA for identification purposes. If you move to a new location, you should deactivate this number and apply for another number at the new location. This number is not a permit. It is used for data management and information tracking purposes.

Your cooperation in protecting Georgia's environment is appreciated.

Sincerely,

Jacquelyn D. Hymel
Hazardous Waste Support Unit
Hazardous Waste Management Branch

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)
DEC 11 2001

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[X] A. Initial Notification

[ ] B. Subsequent Notification *(Complete item C)*

C. Installation's EPA ID Number: GAR000030007

II. Name of Installation *(Include company and specific site name)*

BCX WAYCROSS FACILITY

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: 3 FOLKS STREET

Street *(Continued)*:

City or Town	State	Zip Code
WAYCROSS	GA	31502 -

County Code	County Name
	WARE

IV. Installation Mailing Address *(See Instructions)*

Street or P.O. Box: PO BOX 25

City or Town	State	Zip Code
WAYCROSS	GA	31502 -

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(Last)*	*(First)*
PHELPS	CHARLES

Job Title	Phone Number *(Area Code and Number)*
VP OPERATIONS	904-356-3391

VI. Installation Contact Address *(See Instructions)*

A. Contact Address Location	Mailing	B. Street or P.O. Box
	X	1859 EAST ADAMS STREET

City or Town	State	Zip Code
JACKSONVILLE	FL	32201 -

VII. Ownership *(See Instructions)*

A. Name of Installation's Legal Owner: SOS EARTH (dba) BCX CORPORATION

Street, P.O. Box, or Route Number: 3 FOLKS STREET

City or Town	State	Zip Code
WAYCROSS	GA	31502 -

Phone Number *(Area Code and Number)*	B. Land Type	C. Owner Type	D. Change of Owner Indicator	Date Changed Month Day Year
912-338-0402	P	P	Yes [ ] No [ ]	

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions)*

A. Hazardous Waste Activities

1. Generator (See instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ *5. Other - specify* ______

3. ☐ Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.
4. Exempt Boiler and/or Industrial Furnace
   - ☐ a. Smelting, Melting, and Refining Furnace Exemption
   - ☐ b. Small Quantity On-Site Burner Exemption
5. ☐ Underground Injection Control

B. Universal Waste Activity

☐ Large Quantity Handler of Universal Waste

C. Used Oil Management Activities

1. Used Oil Transporter/Transfer Facility - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
2. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☒ a. Processor
   - ☐ b. Re-refiner
3. ☐ Off-Specification Used Oil Burner
4. Used Oil Fuel Marketer
   - ☒ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Used Oil Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

IX. Description of Hazardous Wastes *(Use additional sheets if necessary)*

A. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
7	8	9	10	11	12

B. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24; See instructions if you need to list more than 4 toxicity characteristic waste codes.)*

(List specific EPA hazardous waste number(s) for the Toxicity Characteristic contaminant(s))

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	1	2	3	4
☐	☐	☐	☐				

C. Other Wastes. *(State-regulated or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
J. Allen Bryson	J. Allen Bryson, CEO	12-5-01

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section IV of the booklet for addresses.)*

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

ID - For Official Use Only

IX. Description of Hazardous Wastes *(Continued; Additional Sheet)*

A. Listed Hazardous Wastes. ***(See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)***

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96

B. Toxicity Characteristic Hazardous Wastes. ***(See 40 CFR 261.24; Use this page only if you need to list more than 4 waste codes.)***

5	6	7	8	9	10
11	12	13	14	15	16
17	18	19	20	21	22

Reference 10

APR 6 2004

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PERMIT#0003

CITY OF WAYCROSS

WATER AND WASTEWATER DEPARTMENT
WARE COUNTY, GEORGIA

PERMIT FOR THE DISCHARGE OF NON-DOMESTIC WASTEWATER UNDER THE INDUSTRIAL PRETREATMENT PROGRAM

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the "State Act," the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.) hereinafter called the "Federal Act," the City of Waycross's Code (Section 32), as amended hereinafter called the Sewer Use Ordinance (SUO) and the Rules and Regulations promulgated pursuant to each of these Acts,

BCX Corporation

is authorized to discharge to the City of Waycross Wastewater Treatment Facility effluent from a facility located at:

901 Francis Street
P.O. Box 25
Waycross, Ga. 31502

In accordance with effluent limitations, monitoring requirements and other conditions set forth in Part I, II, and III hereof.

This permit shall become effective on. 01-01-04 Effective "3/1/04" - Phil DeMarco
EFFECTIVE DATE OF PERMIT.

This permit and the authorization to discharge shall expire at midnight 12/31/04.

Signed this 12 day of 12, 2003

JAMES H NALLEY JR, City Manager

PART I

A. CHARGES FOR SERVICE

Charges for wastewater service authorized by this permit shall be according to the rates established by the Mayor and Council of the City of Waycross for Customers other than single family residential customers and shall be subject to revisions when new rates are adopted. A volume charge per one hundred cubic feet of metered wastewater discharged shall be levied for "Normal Strength Waste." Tests will be made to determine the character and average concentration of pollutants in the discharge. Surcharges shall be levied for pollutants in excess of "Normal" concentration as defined by the Ordinance. Payment of surcharge shall not relieve the permittee of the limitations of pollutants in this permit. The City shall collect samples from time to time as deemed appropriate to check for conventional, toxic organic, and heavy metal pollutants.

A nominal charge for the collection and analysis for conventional pollutants will be assessed. Charges for pollutant analyses will be based on the contract lab's actual prices including collection and shipping costs.

PART II

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

The effluent limitations outlined below are representative of the type of pollutants expected to be discharged by the permittee. However, the permittee shall not discharge any pollutant or wastewater which will interfere with operation of the POTW; nor any substance which may cause fire or explosion; nor any solid or viscous substance which may cause obstruction to the flow in the sewer, nor any wastewater containing toxic or priority pollutants as defined by the Federal Water Quality Act in quantities that will interfere with operation of the POTW or cause a violation of the NPDES Permit, nor any other specific prohibitions listed in the City's Sewer Use Ordinance (Section 32-35(d)).

This permit is issued in conformity with plans, specifications and other data submitted to the City by the permittee.

The permittee shall at all times maintain in good working order and operate as efficiently as possible all facilities or systems installed or used by the permittee to achieve compliance with the terms of this permit.

PARAMETERS	LIMIT Lbs/day	Limit mg/L Daily Limit	Monthly average	SAMPLE FREQUENCY	SAMPLE TYPE
Flow MGD		0.216	.216	Daily	Effluent Weir
C.O.D	3000	1666	1666	1/day	24 Hr Comp
Biochemical Oxygen Demand (5-day)	750	417	417	1/day	24 Hr. Comp
Total Suspended Solids	567		567	1/day	24 Hr. Comp
Nitrogen,total(TN)	63	35	35	1/day	24HR Comp
ammonia-N	19.8	11	11	1/day	24 Hr. Comp
Fats, Oil & Grease		100	100	1/week	24 Hr. Comp
Antimony		0.237	0.141	1/week	24 Hr. Comp
Arsenic		0.162	.104	1/week	24 Hr. Comp
Barium		0.427	.281	1/week	24 Hr. Comp
Cadmium		0.08	.08	1/week	24 Hr. Comp
Chromium		0.746	.487	1/week	24 Hr. Comp
Cobalt		0.192	.124	1/week	24 Hr. Comp
Copper		0.405	.301	1/week	24 Hr. Comp
Cyanide		0.082	.082	1/week	grab
Lead		0.116	.096	1/week	24 Hr. Comp
Mercury		0.002	.0007	1/week	24 Hr. Comp
Molybdenum		1.01	.965	1/week	24 Hr. Comp
Nickel		1.33	.75	1/week	24 Hr. Comp
Selenium		0.46	.26	1/week	24 Hr. Comp
Silver		0.120	.0351	1/week	24 Hr. Comp
Tin		0.409	.120	1/week	24 Hr. Comp
Titanium		0.09	.0618	1/week	24 Hr. Comp
Vanadium		0.218	.0662	1/week	24 Hr. Comp
Zinc		0.641	.641	1/week	24 Hr. Comp
Bis(2-ethylhexyl) phthalate		0.215	.158	1/week	24 Hr. Comp
Carbazole		0.392	.233	1/week	24 Hr. Comp
o-cresol		1.92	.561	1/week	24 Hr. Comp
p-cresol		0.698	.205	1/week	24 Hr. Comp
n-Decane		0.948	.948	1/week	24 Hr. Comp
2,3-Dichloroaniline		0.0731	.0361	1/week	24 Hr. Comp
Flouranthene		0.393	.393	1/week	24 Hr. Comp
n-Octadecane		0.589	.589	1/week	24 Hr. Comp
2,4,6-Trichlorophenol		0.155	.106	1/week	24 Hr. Comp
PH		5.0-9.5		daily	grab

peak ppm =daily mg/l limit

The pH shall not be less than 5.0 nor greater than 9.5 standard units and shall be monitored daily.

EFFLUENT SAMPLES WILL BE COLLECTED AT METERING STATION.

. Total flow .216MGD. Daily flows will be equalized over 24hrs

B. SPECIAL CONDITIONS

1. Monthly average shall be determined by summing the results from all sampling events for a given parameter for a given month and dividing by the number of sample results.

2. BCX will furnish the city with documentation of analysis that is performed before wastewater is accepted for treatment. BCX will perform 129-priority pollutant scan from each site that is hauled to the facility, if the city deems necessary.

3. BCX will furnish toxicity testing on all new waste streams before received.

4. D M R will be completed and sent along with each sampling event.

5. The Sampling Report will be due on the 15th of the month after the sampling event, and will be submitted to the following address:

   Pretreatment Program Manager
   City of Waycross
   Water and Wastewater Department
   P.O. Box 99
   Waycross, GA 31502

6. Permittee shall not discharge any wastewater to the POTW resulting from the receipt and/or treatment of organic wastes unless a written determination has been made by C.O.W that Permittee's pretreatment systems provide "equivalent treatment" for the subject organic waste.

7. Permittee shall not discharge to the POTW any wastewater resulting from the receipt of pesticide chemical wastes. Such wastes shall include process wastewater regulated under 40 CFR 455.

8. In accordance with 40 CFR 437.41(c), Permittee shall maintain On-site Compliance Paperwork, available for inspection and copying. Such paperwork must at a minimum:

A. List and describe each wastestream accepted at the facility (e.g. waste profiles, receipt logs, etc.).

B. List and describe the treatment systems in-place at the facility, modifications to the treatment systems and the conditions under which the systems are operated for each wastestream accepted at the facility (e.g. treatment "recipes", operator instructions, SOPs, etc.).

Criminal prosecution: Any user who willfully or negligently violates any provision of this division or any orders or permits issued hereunder shall, upon conviction in the municipal court of the city, be guilty of a misdemeanor, punishable by a fine not to exceed one thousand hundred dollars ($1000.00) per violation per day or imprisonment for not more than six (6) months or both.

Any user who knowingly makes any false statements, representations, or certifications in any application, record, report, plan or other document filed or required to be maintained pursuant to this division, or wastewater permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this division shall, upon conviction, be punished by a fine of not more than one thousand dollars ($1000.00) per day or imprisonment for not more than six (6) months or both.

I. DISCHARGE OF HAZARDOUS MATERIALS PROHIBITED

The City of Waycross prohibits the discharge of hazardous materials as defined in 40 CFR Part 261. Any user who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and Georgia Environmental Protection Division Hazardous Waste Program, in writing, of any discharge into the POTW of a substance which, otherwise disposed of, would be a hazardous waste under 40 CFR Part 261.

At least once every two (2) years, the director of public works shall evaluate whether each significant industrial user needs an accidental discharge/slug control plan. The City Manager may require any user to develop, submit for approval, and implement such a plan. Alternatively, the director of public works may develop such a plan for any user. An accidental discharge/slug control plan shall address, at a minimum, the following:

a. Description of discharge practices, including non-routine batch discharges;
b. Description of stored chemicals;
c. Procedures for immediately notifying the POTW superintendent of any accidental or slug discharge, as required by section 32-37(d)(6)a. of the Sewer Use Ordinance.
d. Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

J. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit for any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

C. Provide information and supporting data establishing that treatment systems achieve "equivalent treatment".

D. Describe the procedures adopted to ensure that treatment systems are well-operated and maintained, and provide information documenting that waste treatment systems are performing as expected; and

E. Explain why such procedures will ensure that treatment systems are well operated and maintained.

9. Permittee shall maintain on site all data (date, time, meter readings, tank gauge readings, charts, etc.), used to determine discharge flow and/or volume. Such records shall be available for inspection and copying.

10. Permittee shall monitor flow at the designated sample point using a properly annually calibrated, C.O.W approved meter and continuous recorder.

Permit Modifications

C.O.W may modify this permit for good cause, including ,but not limited to, the following reasons:

A. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements;also any new requirements in permit parameters at POTW.

B. To address significant alterations or additions to the user's operation, processes, or wastewater volume or character since the time of permit issuance;

C. A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;

D. Information indicating that the permitted discharge poses a threat to the POTW, C.O.W personnel, or the receiving waters;

E. Violation of any terms or conditions of the permit;

F. Misrepresentations or failure to fully disclose all relevant facts in the permit application or in any required reporting;

G. To correct typographical or other errors in the permit.

Permit Revocation

C.O.W may revoke a wastewater discharge permit for good cause, including, but not limited to, the following reasons:

A. Failure to notify C.O.W of significant changes to the wastewater prior to the changed discharge;

B. Failure to provide prior notification to C.O.W of changed conditions of this permit;

C. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;

D. Falsifying self-monitoring reports;

E. Tampering with monitoring equipment;

F. Refusing to allow C.O.W timely access to the facility premises and records;

G. Failure to meet effluent limitations;

H. Failure to pay fines; surcharges,

I. Failure to pay sewer charges;

J. Failure to meet compliance schedules;

K. Failure to complete a wastewater survey or the industrial user discharge permit application;

L. Failure to provide advance notice of the transfer of business ownership of a permitted facility; or

M. Violation of any pretreatment standard or requirement, or any terms of this permit or C.O.W's *Industrial Pretreatment Regulation.*

. All industrial user discharge permits issued to a particular user are void upon the issuance of a new permit to that user.

Duty to Comply

Permittee shall comply with all conditions of this permit. Compliance with this permit does not relieve Permittee of responsibility for compliance with all applicable federal, state, and local pretreatment standards, including those that become effective during the term of this permit. Such standards include, but may not be limited to:

- *Code of Federal Regulations*, Title 40, Chapter I, Subchapter N (United States Environmental Protection Agency))
- *Industrial Pretreatment Regulation* (C.O.W)

Duty to Mitigate

Permittee shall take all reasonable steps to minimize or correct any adverse impacts to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliant discharge.

Duty to Halt or Reduce Activity

Upon reduction of efficiency of operation, or loss or failure of all or part of the treatment facility, Permittee shall, to the extent necessary to maintain compliance with its permit, control its production or discharges until operation of the treatment facility is restored or an alternative method of treatment is provided. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Proper Operation and Maintenance

Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes, but is not limited to effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process control

C. SAMPLING AND ANALYSES

The discharge shall meet the requirements of Table 1 and the conditions in the following paragraphs. Monthly average is the arithmetic mean of values for samples collected in a calendar month.

1. All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation, shall be retained by the permittee for a minimum of three (3) years. All records relating to compliance with pretreatment standards shall be made available to officials of the City of Waycross, the Georgia Environmental Protection Division and the U.S. Environmental Protection Agency upon the proper request.

2. The permittee shall notify the City in writing at least ninety (90) days in advance of any proposed change in operations that may affect the conditions of the permit.

PART III

A. GENERAL CONDITIONS

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of this permit. Samples must be collected using flow proportional sampling techniques. In the event that flow proportional sampling is infeasible, the city may authorize the use of time proportional sampling or a minimum of four grab samples where the user demonstrates that this will provide a representative sample of the effluent being discharged. All pollutant analyses and sampling techniques shall be performed in accordance with 40 CFR Part 136, or if not included in 40 CFR Part 136, then in accordance with procedures approved by EPA.

B. ACCESS

Authorized representatives of the City, EPD, and EPA shall have the right of access and shall enter the premises of the permittee from time to time after appropriate application at the plant office for the purpose of inspection of the facilities, inspection and copying of records, and for testing and measuring the discharge from the facility. Any samples taken may be split with the permittee upon request of the permittee.

C. PERMIT TRANSFER

This permit may be transferred to a new owner, new user, different premises, or a new or changed operation only if the permittee gives at least 90 days advance notice to the City, and the City approves the wastewater discharge permit transfer. The permittee shall provide a copy of this permit to any proposed new owner or operator prior to any change. Failure to provide advance notice of a transfer renders this permit void as of the date of the facility transfer.

D. PERMIT MODIFICATION

The City may modify this wastewater discharge permit as determined necessary (i.e., new regulatory requirements, changes in user's operations, discharge violations, transfer of facility ownership, etc). If additional pretreatment and/or operation and maintenance will be required to meet the pretreatment standards, the permittee shall submit the shortest schedule by which the permittee will provide such additional pretreatment. The schedule shall be according to the conditions of the City's Sewer Use Ordinance and the completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard.

E. PERMITTEE'S NOTICE OF VIOLATION

If sampling performed by permittee indicates a violation, the permittee must notify the City within twenty-four (24) hours of becoming aware of the violation. The permittee shall also repeat the sampling and analysis and submit the results of the repeat analysis to the director of utilities within thirty (30) days after becoming aware of the violation.

F. NOTIFICATION OF POTENTIAL PROBLEMS

In the case of any discharge, including, but not limited to accidental discharges, discharges of non-routine, episodic nature, a non-customary batch discharge, or a slug load, that may cause potential problems for the POTW; the user shall immediately telephone and notify the pretreatment manager and POTW plant superintendent of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the user.

Within five (5) days following such discharge, the user shall, unless waived by the city, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the user of any fines, penalties, or other liability which may be imposed pursuant to this division.

A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees whom to call in the event of a discharge described in paragraph a. above. Employers shall ensure that all employees, who may cause such a discharge to occur, are advised of the emergency notification procedure.

G. DILUTIONS

Each user must notify the City of any planned significant changes to the user's operations or system which might alter the nature, quality, or volume of its wastewater at least 90 days before the change. Significant changes, for the purpose of this requirement, include, but are not limited to flow increases of 20 percent or greater, and the discharge of any previously unreported pollutants.

No industrial user shall increase the use of potable or process water or, in anyway, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

H. CIVIL AND CRIMINAL REMEDIES

If any person discharges sewage, industrial wastes, or other wastes into the wastewater disposal system contrary to the provisions of this permit or any order issued hereunder, the City may commence an action for appropriate legal and/or equitable relief in the Ware County Court.

Injunctive relief: Whenever a user has violated or continues to violate the division or any order or permit issued hereunder, the city, through counsel may petition the court for its issuance of a preliminary or permanent injunction or both (as may be appropriate) which restrains or compels the activities on the part of the user. The city may also initiate nuisance abatement proceedings in the municipal court of the city, as an alternate remedy.

Civil penalties: Any user who has violated or continues to violate the division or any order or permit issued hereunder, shall be liable to the city for a civil penalty of up to at least one thousand dollars ($1,000.00) plus actual damages incurred by the POTW per violation per day for as long as the violation continues. In addition to the above described penalty and damages, the city may recover

Reasonable attorneys' fees, court costs, and other expenses associated with the enforcement activities, including sampling and monitoring expenses.

The city shall petition the municipal court of the city or any state court having jurisdiction to impose, assess, and recover such sums. In determining amount of liability, the municipal court of the city or any state court having jurisdiction shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration, any economic benefit gained through the user's violation, corrective actions by the user, the compliance history of the user, and any other factors as justice requires.

Criminal prosecution: Any user who willfully or negligently violates any provision of this division or any orders or permits issued hereunder shall, upon conviction in the municipal court of the city, be guilty of a misdemeanor, punishable by a fine not to exceed one thousand hundred dollars ($1000.00) per violation per day or imprisonment for not more than six (6) months or both.

Any user who knowingly makes any false statements, representations, or certifications in any application, record, report, plan or other document filed or required to be maintained pursuant to this division, or wastewater permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this division shall, upon conviction, be punished by a fine of not more than one thousand dollars ($1000.00) per day or imprisonment for not more than six (6) months or both.

I. DISCHARGE OF HAZARDOUS MATERIALS PROHIBITED

The City of Waycross prohibits the discharge of hazardous materials as defined in 40 CFR Part 261. Any user who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and Georgia Environmental Protection Division Hazardous Waste Program, in writing, of any discharge into the POTW of a substance which, otherwise disposed of, would be a hazardous waste under 40 CFR Part 261.

At least once every two (2) years, the director of public works shall evaluate whether each significant industrial user needs an accidental discharge/slug control plan. The City Manager may require any user to develop, submit for approval, and implement such a plan. Alternatively, the director of public works may develop such a plan for any user. An accidental discharge/slug control plan shall address, at a minimum, the following:

a. Description of discharge practices, including non-routine batch discharges;
b. Description of stored chemicals;
c. Procedures for immediately notifying the POTW superintendent of any accidental or slug discharge, as required by section 32-37(d)(6)a. of the Sewer Use Ordinance.
d. Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

J. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit for any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

Appendix A
Priority Pollutant Metals and Detection Limits

Antimony	5 µg/l
Arsenic	5 µg/l
Beryllium	1 µg/l
Cadmium	0.7 µg/l
Chromium (Total)	5 µg/l
Copper	6 µg/l
Lead	1 µg/l
Mercury	0.6 µg/l
Nickel	5 µg/l
Selenium	5 µg/l
Silver	5 µg/l
Thallium	1 µg/l
Zinc	10 µg/l

Appendix B
** Total Toxic Organic Pollutant list and Detection Limits

Methoxychlor	0.3 µg/l
2,4-Dichlorphenoxyacetic acid (2,4-D)	5.0 µg/l
2,4,5-Trichlorphenoxy propionic acid (TP Silvex)	10 µg/l
Cyanide	25 µg/l
Acrolein	50 µg/l
Acrylonitrile	50 µg/l
Benzene	2.0 µg/l
Bromoform (tribromomethane)	10 µg/l
Carbon tetrachloride (tetrachloromethane)	2.0 µg/l
Chlorobenzene	10 µg/l
Chlorodibromomethane	10 µg/l
Chloroethane	5.0 µg/l
2-Chloroethyl (vinyl ether)	10 µg/l
Chloroform (trichloromethane)	2.0 µg/l
Dichlorobromomethane	10 µg/l
1,1-dichloroethane	2.0 µg/l
1,2-dichloroethane	2.0 µg/l
1,1-dichloroethylene	2.0 µg/l
1,2-dichloropropane	2.0 µg/l
1,3-dichloropropylene (cis)	2.0 µg/l
1,3-dichloropropylene (trans)	2.0 µg/l
Ethylbenzene	2.0 µg/l
Methyl bromide (bromomethane)	10 µg/l
Methylene chloride (dichloromethane)	10 µg/l
Methyl chloride	10 µg/l
1,1,2,2-tetrachloroethane	2.0 µg/l

Tetrachloroethylene	2.0 µg/l
Toluene	2.0 µg/l
1,2-trans-dichloroethylene	2.0 µg/l
1,1,1-trichloroethane	2.0 µg/l
1,1,2-trichloroethane	2.0 µg/l
Trichloroethylene	2.0 µg/l
Vinyl chloride (chloroethylene)	10 µg/l
2-Chlorophenol	10 µg/l
2,4 – dichlorophenol	10 µg/l
2,4 – dimethylphenol	10 µg/l
2-Methyl-4,6-Dinitrophenol	50 µg/l
2,4-dinitrophenol	50 µg/l
2-nitrophenol	50 µg/l
4-nitrophenol	50 µg/l
3-Methyl-4-Chlorophenol	50 µg/l
Pentachlorophenol	20 µg/l
Phenol	10 µg/l
2,4,6-trichlorophenol	10 µg/l
Acenaphthene	10 µg/l
Acenaphthylene	10 µg/l
Anthracene	10 µg/l
Benzidene	80 µg/l
Benzo(a)anthracene	10 µg/l
Benzo(a)pyrene	10 µg/l
3,4-Benzofluoranthene	10 µg/l
Benzo(ghi)perylene	10 µg/l
Benzo(k)fluoranthene	10 µg/l
Bis (2-chloroethoxy) methane	10 µg/l
Bis (2-chloroethyl) ether	10 µg/l
Bis (2-chloroisopropyl) ether	10 µg/l
Bis (2-ethylhexyl) phthalate	10 µg/l
4-bromophenyl phenyl ether	10 µg/l
Butyl benzyl phthalate	10 µg/l
2-chloronaphthalene	10 µg/l
4-chlorophenyl phenyl ether	10 µg/l
Chrysene	10 µg/l
Dibenzo (a,h) anthracene	10 µg/l
1,2-dichlorobenzene	10 µg/l
1,3-dichlorobenzene	10 µg/l
1,4-dichlorobenzene	10 µg/l
3,3-dichlorobenzidine	20 µg/l
Diethyl phthalate	10 µg/l
Dimethyl phthalate	10 µg/l
Di-n-butyl phthalate	10 µg/l
2,4-dinitrotoluene	20 µg/l
2,6-dinitrotoluene	20 µg/l
Di-n-octyl phthalate	10 µg/l
1,2-diphenylhydrazine	10 µg/l
Fluoranthene	10 µg/l
uorene	10 µg/l

Hexachlorobenzene	
Hexachlorobutadiene	10 µg/l
Hexachlorocyclopentadiene	10 µg/l
Hexachloroethane	10 µg/l
Indeno (1,2,3-cd) pyrene	1.0 µg/l
Isophorone	10 µg/l
Naphthalene	10 µg/l
Nitrobenzene	10 µg/l
N-nitrosodimethylamine	10 µg/l
N-nitrosodi-n-propylamine	10 µg/l
N-nitrosodiphenylamine	10 µg/l
Phenanthrene	10 µg/l
Pyrene	10 µg/l
1,2,4-trichlorobenzene	10 µg/l
Aldrin	10 µg/l
a-BHC –Alpha	0.1 µg/l
b-BHC-Beta	0.1 µg/l
Lindane	0.1 µg/l
d-BHC-Delta	0.1 µg/l
Chlordane	0.1 µg/l
4,4-DDT	0.5 µg/l
4,4-DDE	0.2 µg/l
4,4-DDD	0.2 µg/l
Dieldrin	0.2 µg/l
a-Endosulfan	0.1 µg/l
·Endosulfan	0.5 µg/l
Endosulfan sulfate	0.5 µg/l
Endrin	0.5 µg/l
Endrin aldehyde	0.2 µg/l
Heptachlor	0.2 µg/l
Heptachlor epoxide	0.1 µg/l
PCB-1242 (Arochlor 1242)	0.1 µg/l
PCB-1254 (Arochlor 1254)	1.0 µg/l
PCB-1221 (Arochlor 1221)	1.0 µg/l
PCB-1232 (Arochlor 1232)	1.0 µg/l
PCB-1248 (Arochlor 1248)	1.0 µg/l
PCB-1260 (Arochlor 1260)	1.0 µg/l
PCB-1016 (Arochlor 1016)	1.0 µg/l
Toxaphene	1.0 µg/l
	2.0 µg/l

Reference 11

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1066 East, Atlanta, Georgia 30334-9000
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
Office: 404/657-8831 FAX: 404/463-6676

June 6, 2003

Mr. Allen Bryson
CEO
BCX Waycross Facility
901 Francis Street
Waycross, GA 31501

SUBJECT: **USED OIL TRANSPORTER REQUIREMENTS**
BCX Waycross Facility
Waycross, Ware County
EPA I.D. Number GAR000030007

Dear Mr. Bryson:

On April 22, 2003, Marie Humphreys of the Brunswick EPD office and I conducted a Used Oil processor compliance evaluation inspection of your business. This inspection was conducted to determine your compliance status with Georgia's Rules for Recycled Used Oil Management Standards ("Rules"), Section 391-3-11-.17. It was determined that BCX has not received used oil for processing as of the inspection date, and that no violations of the Rules were observed. Please ensure that all used oil facility requirements are satisfied prior to the acceptance of used oil.

Please be advised that this business may be periodically inspected to ensure compliance with Georgia's Rules for Used Oil Management. Enclosed is a Used Oil Management Inspection Report used during the inspection. Should you have any questions or concerns, please contact me at (404) 657-8831. Thank you for your cooperation in protecting Georgia's environment.

Sincerely,

John Short

John Short
Environmental Specialist
Hazardous Waste Compliance Unit

JES/js
Enclosure: Used Oil Management Inspection Report
c: Renée Hudson Goodley
Freddie L. Dunn, Jr.
File: ✓BCX Waycross Facility, Waycross
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Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1066 East, Atlanta, Georgia 30334-9000
Lonice C. Barrett, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
Phone: 404/657-8831 FAX: 404/463-6676

USED OIL MANAGEMENT INSPECTION REPORT

SECTION I
FACILITY INFORMATION

Facility Name: BCX Waycross Facility		
EPA Identification Number: GAR000030007		NAICS Code:
Location Address: 901 Francis Street		
City: Waycross	County: Ware	Zip Code: 31501
Mailing Address: same		
City:	State:	Zip Code:
Officials Contacted:		
Name: Allen Bryson	Title: CEO	Telephone Number: (912) 338-0402

SECTION II
SUMMARY OF FINDINGS

BCX was receiving industrial wastewater during this inspection. The wastewater treatment facility plans to receive used oil from the railroad industry and possible from a military installation according to Mr. Bryson.

The following checklist is mostly not applicable because BCX has not begun to accept, store, or process used oil.

Based on this inspection, this facility is a: **Industrial Wastewater Treatment Facility**			
Generator Used Oil:		Burner of Used Oil Fuel:	
Transporter of Used Oil:		Marketer of Used Oil Fuel:	
Collection/Aggregation Center of Used Oil:		Processor and/or Refiner of Used Oil:	
Samples: No		Number of Samples:	None
Photographs: Yes		Number of Photographs:	4
Inspected by: John E. Short and Marie Humphreys (Brunswick EPD Office) JES		Inspection Date: 4/22/2003	
Reviewed by: Freddie L. Dunn, Jr.		Review Date: 06/02/2003	
Attachments: Facility Brochure, Photographs, Manifest Documents			
File Name: BCX Waycross Facility, Waycross		Submission for Review Date: 5/15/2003	

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SECTION III
USED OIL SPECIFICATION & REBUTTABLE PRESUMPTION

A. USED OIL SPECIFICATION TABLE (279.11) N/A - No Rebuttalbe Presumption to review

CONSTITUENT/PROPERTY	ALLOWABLE LEVELS	MEETS	EXCEEDS
Arsenic	5 ppm maximum		
Cadmium	2 ppm maximum	Table	
Chromium	10 ppm maximum	Not	
Lead	100 ppm maximum	Applicable	
Flash Point	100°F minimum		
Total Halogens	4,000 ppm maximum*		

*Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste. Such used oil is subject to subpart H of part 266 when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

	Yes	No	N/A	Violation
1. Does the facility manage only on-specification used oil that is burned for energy recovery? (If yes, subject only to the following requirements.)		X	X	
a) Does the facility first claim that the used oil does not exceed any specification?		X	X	
i. Does the facility keep copies of analyses of the used oil or other information used to make the determination for three years?		X	X	
ii. Did the facility notify as a marketer?		X	X	
iii. Does the facility keep a record of each shipment of used oil to on-specification used oil burner for three years?		X	X	
iv. Do the records contain the name and address of the facility receiving the shipment?		X	X	
v. Do the records contain the quantity of used oil fuel delivered?		X	X	
vi. Do the records contain the date of shipment or delivery?		X	X	
vii. Do the records contain a cross reference to the record of used oil analysis or other information used to make the determination that the used oil meets the specification?		X	X	

According to Mr. Bryson, the above records will be maintained when the facility begins accepting used oil from a designated transporter (BCX will not be receiving used oil from various small operators of used oil trucks). The plans for accepting used oil include receiving used oil by railroad, which is located next to the tank farm.

SECTION III
USED OIL SPECIFICATION & REBUTTABLE PRESUMPTION (CONTINUED)

B. REBUTTABLE PRESUMPTION (279.44, 279.53, 279.63)	Yes	No	N/A	Violation
1. Does the used oil contain more than 1,000-ppm total halogens?		X	X	
a) Is the used oil metalworking oils/fluids containing paraffins that is processed, through a tolling arrangement, to reclaim metalworking oils/fluids? (If yes, the rebuttable presumption does not apply.)		X	X	
b) Is the used oil contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where CFCs are destined for reclamation? (If yes, the rebuttable presumption does not apply.)		X	X	
2. Does the facility rebut the presumption that the used oil is a hazardous waste?		X	X	
3. Does the facility demonstrate that the used oil does not contain hazardous waste? (For example, by using an analytical method from SW-846, Edition III, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Part 261.)		X	X	

COMMENTS: An on-site laboratory will test for flash point, water content and halogen content. Another lab (ENCO) will test for PCB's and metals. The lab will provide BCX with a lab report for each load that leaves the site. This will ensure that the used oil is on-spec.

SECTION IV
GENERAL REQUIREMENTS

A. NOTIFICATION (279.42, 279.51, 279.62, 279.73)	Yes	No	N/A	Violation
1. Did the facility notify? (not applicable to generators)	X			
B. USED OIL STORAGE (279.22, 279.45, 279.45, 279.64)				
1. Does the facility store used oil?		X	X	
2. Is the used oil stored in tanks, containers, or units subject to regulation under 40 CFR Parts 264 or 265?	X			
3. Are the containers and aboveground tanks in good condition with no leaks?	X			

COMMENTS:
Mr. Bryson notified on December 5, 2001 in anticipation of the facility operating as a marketer and processor of used oil. There was no used oil stored in the tanks during the inspection according to Mr. Bryson.

SECTION IV
GENERAL REQUIREMENTS (CONTINUED)

	Yes	No	N/A	Violati
4. Do the containers and aboveground tanks have a secondary containment system? (not applicable to generators)		X	X	
a) Does the secondary containment system consist of dikes, berms, or retaining walls?		X	X	
b) Is the entire containment system sufficiently impervious to used oil to prevent any used oil released into the system from migrating out of the system to the soil, groundwater, or surface?		X	X	
5. Are containers, aboveground tanks, and fill pipes for underground storage tanks labeled or marked clearly with the words "Used Oil?"	X			
6. Have any releases of used oil to the environment occurred? (describe in comment section)		X	X	
a) Did the facility stop the release?		X	X	
b) Did the facility contain the released used oil?		X	X	
c) Did the facility clean up and manage properly the released used oil and other materials?		X	X	
d) Did the facility repair or replace any leaking storage containers or tanks to prevent future releases prior to returning them to service?		X	X	
C. TRACKING (not applicable to generators) (279.46, 279.56, 279.65, 279.74)				
1. Does the facility keep a record of each used oil shipment?		X	X	
2. Do the records include the names and addresses of the generator (if applicable), transporter, processor/re-refiner, burner, and/or receiving facility?		X	X	
3. Do the records include the EPA identification numbers of the generator (if applicable), transporter, processor/re-refiner, burner and/or receiving facility?		X	X	
4. Do the records include the quantity of used oil accepted/shipped?		X	X	
5. Do the records include the date of acceptance/shipment?		X	X	
6. Do the records include the signature, dated upon receipt, of a representative of the generator, transporter, processor/re-refiner, and/or receiving facility? (Transporter only)		X	X	

SECTION IV
GENERAL REQUIREMENTS (CONTINUED)

	Yes	No	N/A	Violation
7. Do the records include a cross-reference to the record of used oil analyses or other information used to make the determination that the used oil meets specification? (fuel marketers only)		X	X	
8. Are records retained for at least three years?		X	X	
MANAGEMENT OF RESIDUES (279.47, 279.59, 279.67)				
1. Are materials reclaimed from the residues and used beneficially? (If yes, not a solid waste nor subject to Part 279.)		X	X	
2. Are materials produced from the residues that are burned for energy recovery? (If yes, subject to Part 279.)		X	X	
3. Are materials derived from the residues that are disposed of or used in a manner constituting disposal? (If yes, not used oil, not subject to Part 279, but are solid wastes and subject to Parts 260 through 266, 268.)		X	X	
4. Is the residue re-refining distillation bottoms used as feedstock to manufacture asphalt products? (If yes, not subject to Part 279 or Parts 260 through 266, 268.)		X	X	

COMMENTS:

IV. B. 5. The tanks are clearly labeled "used oil" even though they are not currently storing or processing used oil.

IV. C. 7. BCX will be able to cross check used oil analytical by comparing the manifest with the matching analytical data supplied by ENCO.

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SECTION V SUBPART C – USED OIL GENERATORS				
A. HAZARDOUS WASTE MIXING (279.21)	**Yes**	**No**	**N/A**	**Violatic**
1. Does the generator mix hazardous waste with the used oil?		X	X	
a) Does the mixture exhibit any characteristics of hazardous waste? (If yes, regulated as hazardous waste under Part 262.)		X	X	
b) Does the used oil contain greater than 1,000 ppm total halogens? (If yes, presumed to hazardous.)		X	X	
ON-SITE BURNING IN SPACE HEATERS (279.23)				
1. Does the generator burn oil in used oil-fired space heaters?		X	X	
a) Does the generator burn only used oil generated at the facility or received from household do-it-yourself used oil generators?		X	X	
b) Is the heater designed to have a maximum capacity of not more than 0.5 million Btu per hour?		X	X	
OFF-SITE SHIPMENTS (279.24)				
2. Does the generator transport the facility's used oil or used oil from do-it-yourselfers to a used oil collection center?		X	X	
a) Is the used oil transported in a vehicle owned by the facility or an employee?		X	X	
b) Does the generator transport more than 55 gallons at any time?		X	X	
c) Is the collection center registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil?		X	X	
2. Does the generator transport the facility's used oil to an aggregation point?		X	X	
a) Is the used oil transported in a vehicle owned/operated by the facility or an employee?		X	X	
b) Does the generator transport more than 55 gallons at any time?		X	X	
c) Is the aggregation point owned and/or operated by the same generator?		X	X	
3. Does the generator have a contractual agreement pursuant to which reclaimed oil is returned by the processor/re-refiner to the generator for use as a lubricant, cutting oil, or coolant?		X	X	

SECTION V
SUBPART C – USED OIL GENERATOR (CONTINUED)

	Yes	No	N/A	Violation
a) Does the contract indicate the type of used oil and the frequency of shipments?		X	X	
b) Does the contract indicate that the vehicle used to transport the used oil to the processing/re-refining facility and to deliver recycled used oil back to generator is owned and operated by the used oil processor/re-refiner?		X	X	
c) Does the contract indicate that reclaimed oil will be returned to the generator?		X	X	
4. Does the generator ensure that the used oil is transported only by transporters who have obtained EPA identification numbers?		X	X	
USED OIL FILTER EXCLUSION [261.4(b)(13)]				
1. Does the generator manage used oil filters?		X	X	
a) Are the filters non-terne plated		X	X	
b) Are the filters gravity hot-drained?		X	X	

COMMENTS:

Filters will not be managed by BCX according to Mr. Bryson.

SECTION VI
SUBPART D -- USED OIL COLLECTION CENTERS & AGGREGATION POINTS

	Yes	No	N/A	Violation
A. Is the facility a do-it-yourselfer used oil collection center? (If yes, used oil generator requirements apply)		X	X	
B. Is the facility a used oil collection center? (If yes, used oil generator requirements apply)		X	X	
C. Is the facility registered/licensed/permitted/recognized by a state/county/municipal government to manage used oil?		X	X	
D. Is the facility a used oil aggregation point owned by the generator? (If yes, used oil generator requirements apply)		X	X	
E. Does the facility only accept used oil collected from other used oil sites owned by the generator and/or from household do-it-yourselfers?		X	X	

COMMENTS:

SECTION VII
SUBPART E – USED OIL TRANSPORTERS AND TRANSFER FACILITIES

	Yes	No	N/A	Violation
A. Does the transporter deliver used oil to one of the following:				
1. Another used oil transporter with an EPA identification number;		X	X	
2. A used oil processing/re-refining facility with an EPA identification number;		X	X	
3. An off-specification used oil burner with an EPA identification number;		X	X	
4. An on-specification used oil burner?		X	X	
B. Does the transporter test or apply knowledge to determine whether the used oil is above or below 1,000 ppm total halogens?				
1. Are records of analyses or information maintained by the transporter for at least three years?		X	X	
C. Does the transporter store used oil for less than 35 days?	N/A			

COMMENTS:

This company was not receiving used oil at the time of the inspection.

SECTION VIII
SUBPART F - USED OIL PROCESSORS AND RE-REFINERS

A. PREPAREDNESS AND PREVENTION [279.529(a)]	Yes	No	N/A	Violation
1. Is the facility maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water?		X	X	
2. Is the facility equipped with the following:		X	X	
a) Internal communications or alarm system?		X	X	
b) Telephone or two-way radio?		X	X	
c) Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment?	X		X	
d) Water or foam?		X	X	
3. Is all emergency equipment tested and maintained?		X	X	
4. Do personnel have immediate access to communications and/or alarm system?		X	X	
5. Is adequate aisle space maintained to allow the unobstructed movement or personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the facility in an emergency?		X	X	
6. Have local authorities inspected the facility?		X	X	
B. CONTINGENCY PLAN AND EMERGENCYPROCEDURES [279.52(b)]				
1. Does the facility have a contingency plan or an SPCC plan?		X	X	
2. Does the contingency/SPCC plan include:		X	X	
a) A description of arrangements agreed to by local police, fire departments, hospitals, contractors, and State and local emergency response teams?		X	X	
b) A list of names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator?		X	X	
c) A list of all emergency equipment at the facility and the location and physical description of each item and its capabilities?		X	X	
d) An evacuation plan, which includes signals to be used, evacuation routes, and alternate evacuation routes?		X	X	
3. Are copies of the contingency plan and all revisions:		X	X	
a) Maintained at the facility?		X	X	
b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams?		X	X	
4. Is the contingency plan amended as necessary?		X	X	

SECTION VIII SUBPART F - USED OIL PROCESSORS AND RE-REFINERS (CONTINUED)				
	Yes	No	N/A	Violation
4. Is at least one emergency coordinator on the premises or on call at all times?		X	X	
a) Is the coordinator thoroughly familiar with all aspects of the contingency plan, all operations and activities at the facility, the location and characteristic of used oil handled, the location of all records, and the facility layout?		X	X	
C. TOTAL HALOGENS (279.53)				
1. Does the processor/re-refiner test or apply knowledge to determine whether the used oil is above or below 1,000 ppm total halogens?		X	X	

D. USED OIL MANAGEMENT (279.54)				
1. Did the facility perform closure of any aboveground tanks?		X	X	
a) Did the facility remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them, if applicable, as hazardous waste?		X	X	
b) If owner demonstrated that not all contaminated soils could be practicably removed or decontaminated, did the owner close the tank system and perform post closure care in accordance with the closure and post closure requirements that apply to hazardous waste landfills?		X	X	

2. Did the facility perform closure on any containers?		X	X	
a) Were all containers holding used oils or residues removed from the site?		X	X	
b) Did the facility remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them, if applicable, as hazardous waste?		X	X	
E. ANALYSIS PLAN (279.55)				
1. Does the facility have an analysis plan at the facility?		X	X	
2. Does the analysis plan specify:		X	X	
a) Whether sample analyses or knowledge will be used to determine total halogen content and/or on-specification?		X	X	
b) If sample analyses used:		X	X	
i. The sampling method used to obtain representative samples to be analyzed?		X	X	

SECTION VIII
PROCESSORS/REFINERS (CONTINUED)

	Yes	No	N/A	Violation
ii. The frequency of sampling to be performed and whether the analysis will be performed on-site or off-site?		X	X	
iii. The methods used to analyze used oil for the parameters specified in 279.53 or 270.72?		X	X	
iv. Whether used oil will be sampled and analyzed prior to or after any processing/re-refining?		X	X	
c) The type of information that will be used to determine the halogen content or make the on-specification used oil fuel determination?		X	X	
F. OPERATING RECORD AND REPORTING (279.57)				
1. Does the facility keep a written operating record at the facility?		X	X	
a) Does the record contain records and results of used oil analyses performed as described in the analysis plan?		X	X	
b) Does the record contain summary reports and details of all incidents that require implementation of the contingency plan?		X	X	
2. Did the facility submit a biennial report on its used oil activities? (due by March 1 even years for previous year)		X	X	
G. OFF-SITE SHIPMENTS (279.58)				
1. Does the facility use a transporter with an EPA identification number?		X	X	

COMMENTS:

This company was not receiving used oil at the time of the inspection.

VIII. B. The contingency plan is currently being finalized.

VIII. E./F. An Analysis Plan and Operating Record will be created and maintained prior to this company's acceptance of used oil according to Mr. Bryson.

VIII. F. 2. A biennial report will be required in 2004 addressing 2003 used oil activities.

SECTION IX
SUBPART G – USED OIL BURNERS WHO BURN OFF-SPECIFICATION USED OIL FOR ENERGY RECOVERY

A. RESTRICTIONS ON BURNING (279.61)

	Yes	No	N/A	Violation
1. Is the off-specification used oil burned in one of the following devices:		X	X	
a) An industrial furnace identified in 260.10;		X	X	
b) An industrial boiler;		X	X	
c) An utility boiler;		X	X	
d) An used oil-fired space heater;		X	X	
e) A hazardous waste incinerator?		X	X	

B. NOTICE (279.66)

1. Does the burner provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice before accepting the first shipment of off-specification used oil?		X	X	
a) Does the notice certify that the burner has notified EPA/EPD stating the location and general description of its used oil management activities?		X	X	
b) Does the notice certify that the burner will burn the used oil only in one of the acceptable devices?		X	X	
2. Is the notice retained for a period of three years from the date of the last shipment received?		X	X	

COMMENTS:

This company was not receiving used oil at the time of the inspection.

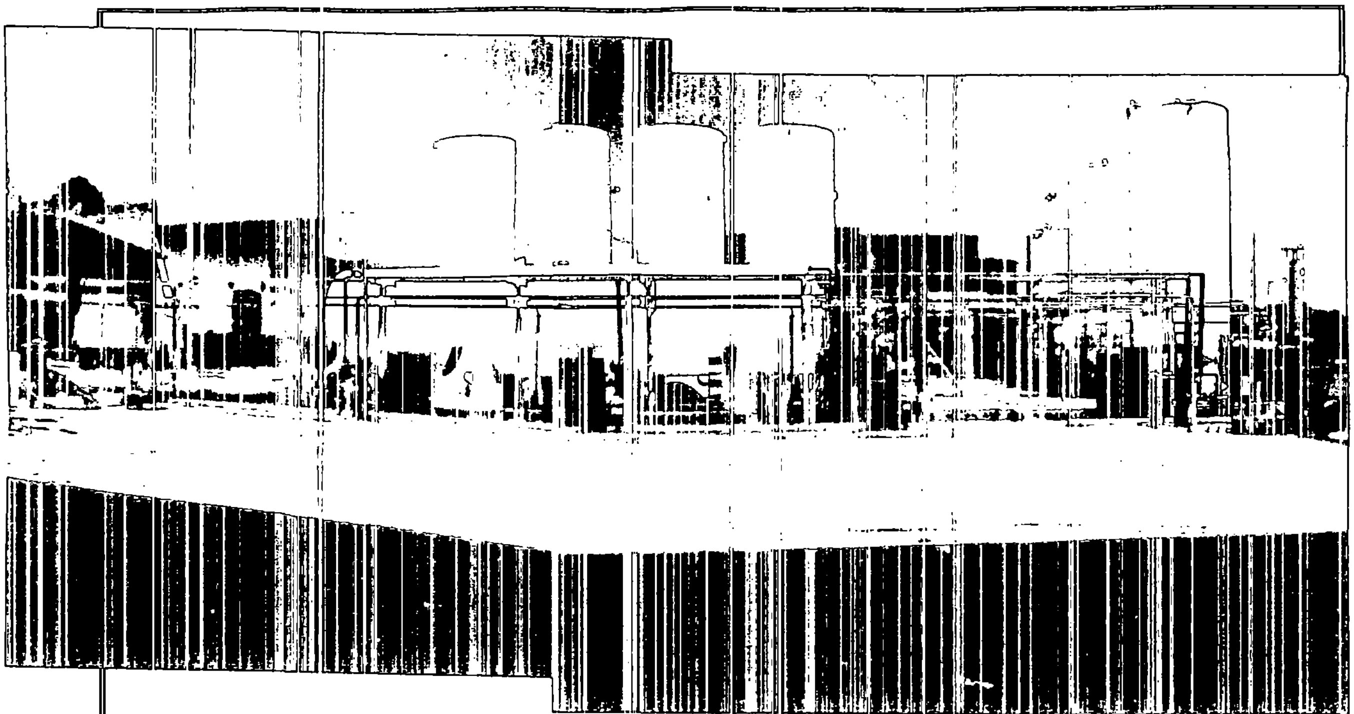
SECTION X
SUBPART H – USED OIL FUEL MARKETERS

A. PROHIBITIONS (279.71)	Yes	No	N/A	Violation
1. Does the facility initiate shipments to burners:		X	X	
a) With an EPA identification number?		X	X	
b) That only burn in acceptable devices?		X	X	
B. ON-SPECIFICATION USED OIL FUEL (279.72)				
1. Does the facility market on-specification used oil for energy recovery?		X	X	
a) Does the facility first claim the used oil met the specifications?		X	X	
b) Are copies of analyses and/or other information retained for three years?		X	X	

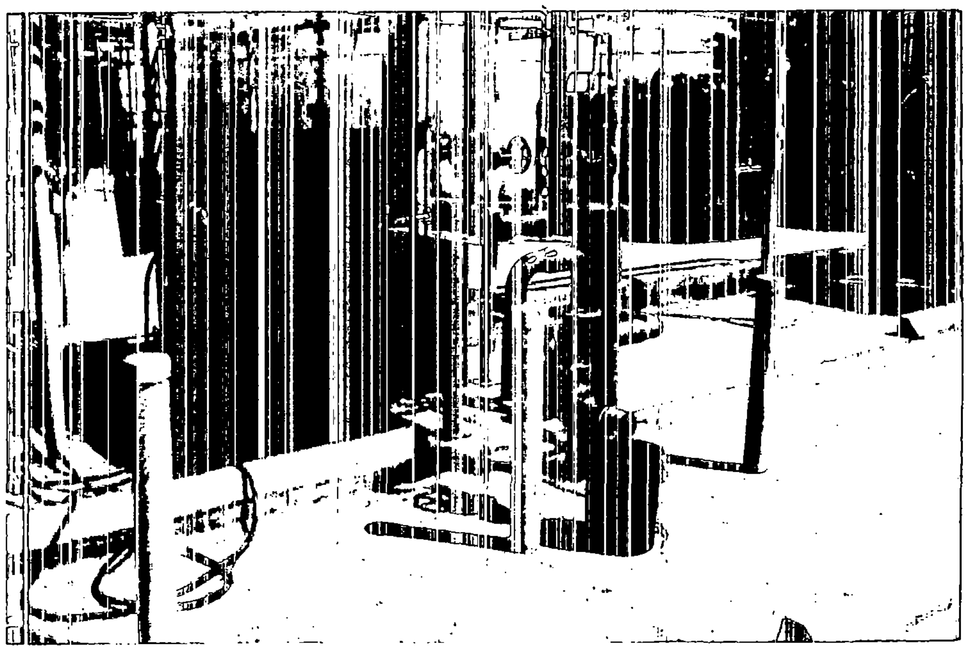
C. NOTICES (279.75)				
1. Is notice obtained from the burner before the first shipment of off-specification used oil?		X	X	
a) Does the notice certify that the burner notified EPA/EPD stating the location and general description of used oil management activities?		X	X	
b) Does the notice certify that the burner will burn the off-specification used oil only in acceptable devices?		X	X	
2. Are notices retained for three years from the date of the last shipment?		X	X	

COMMENTS:

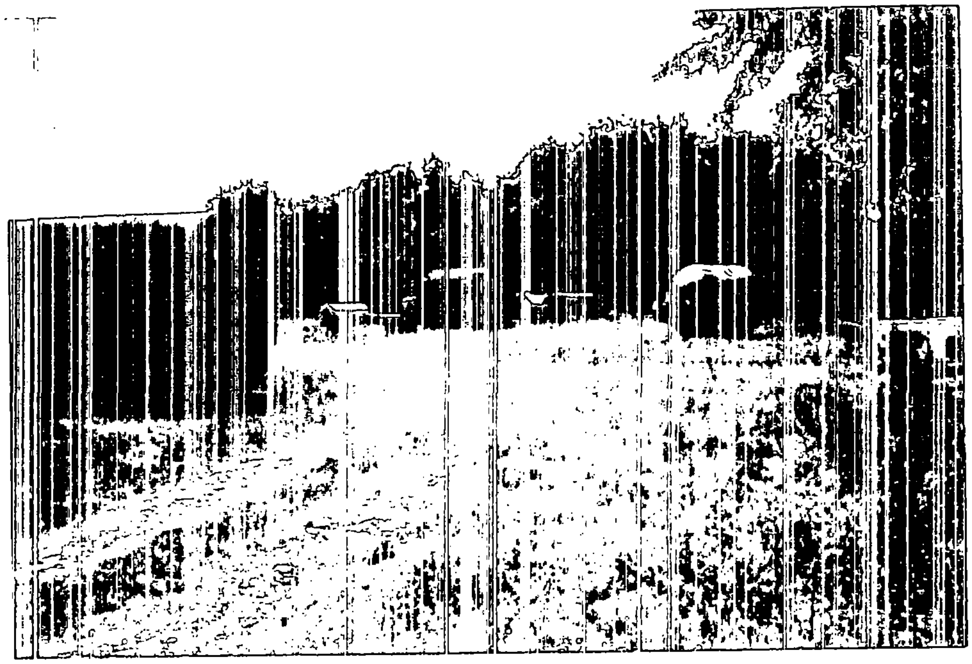
N/A is defined as not applicable



Site Name: BCX Waycross	Picture 1 and 2 of 4	County Name: Ware
Date: 4/22/2003	Photographer: John Short	
Explanation: Overview of tank farm and wastewater treatment plant (to rear of photo).		



Site Name: BCX Waycross	Picture 3 of 4	County Name: Ware
Date: 4/22/2003	Photographer: John Short	
Explanation: This is where used oil will be unloaded. Solids will be collected in the green unit that will filter incoming used oil prior to storage and processing. Currently, only industrial wastewater is unloaded into the units.		



Site Name: BCX Waycross	Picture 4 of 4	County Name: Ware
Date: 04/22/2003	Photographer: John Short	

Explanation: These are empty tanks and totes on the BCX Waycross Facility property. Some of these tanks will be scrapped but Mr. Bryson said the majority of them are usable and saleable. A contractor certified the tanks as empty, as documented by BCX.

Reference 12

City of Waycross

Office of City Engineer

ALLEN BRYSON
BCX CORPORATION
3 FOLK ST
WAYCROSS GA 31502

MR BRYSON

THIS IS A FORMAL "NOTICE OF VIOLATION" FOR THE MONTH OF MAY,2003. THE PARAMETERS IN QUESTION ARE:

TN
BOD
COD
NH3
COPPER
ZINC

PLEASE SEND ME A UPDATED CORRECTIVE ACTION PLAN. FAILURE TO CORRECT THESE VIOLATIONS COULD RESULT IN FINES, SURCHARGES AND /OR SEWER USE DISCONNECTION.

IF YOU HAVE ANY QUESTIONS CALL ME AT 912-287-2945

HENRY MCLAUGHLIN
PRETREATMENT COORDINATOR

City of Waycross
Office of City Engineer

May 23, 2003

Mr. Alan Bryson
B.C.X. Corporation
3 Folk Street
Waycross, Georgia 31501

Dear Mr. Bryson:

During my annual inspection on May 22, 2003, I saw that your self-monitoring reports indicated that the following parameters have been left off. During the inspection we spoke of this and you showed me a letter from your laboratory stating this was a mistake on their part. At this time, this is acceptable, but in the future I will expect to see these parameters on your self-monitoring reports. The following are the parameter in question:

Carabazole
O-Cresol
P-Cresol
N-Decane
2,3-Dichloroaniline
N-Octadecane

This letter is a formal notice that I am aware of this matter and your corrective action. Thanks for your continued cooperation.

If you have any questions regarding this matter please feel free to call 287-2945.

Sincerely,

Henry McLaughlin
Industrial Pretreatment Coordinator

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

City of Waycross
Office of City Engineer

7-21-03

ALLEN BRYSON
BCX CORPORATION
3 FOLK ST
WAYCROSS GA 31502

MR BRYSON
AFTER REVIEW OF YOUR JUNE 2003 SAMPLE REPORTS I AM ISSUING A FORMAL "NOTICE OF VIOLATION". YOU MUST SUBMIT A CORRECTIVE PLAN OF ACTION IMMEDIATELY.SINCE NITROGEN,TOTAL AND NH3 ARE DAILY SAMPLES NO REPEAT SAMPLE IS REQUIRED.WEEKLY SAMPLES SHOLD BE RESAMPLED AND SENT IN WITH CORRECTIVE PLAN OF ACTION.THE FOLLOWING IS THE PARAMETERS AND DATES OF CONCERN. FURTHER PERMIT VIOLATIONS COULD RESULT IN SERVICE DISCONNECT AND/OR SURCHARGES.

PERMIT VIOLATION FOR MONTH OF JUNE 2003

PARAMETERS	DATES
NITROGEN, TOTAL	6/2,6/3,6/5,6/9,6/10,6/11,6/12,6/25,
NH3	6/2,6/4,6/5,6/9,6/18,6/24,6/30
COPPER	6/6,6/27
ZINC	6/6,6/27
MERCURY	6/27
CYANIDE	6/27

TOTAL OF 21 PERMIT VIOLATIONS FOR MONTH OF JUNE, 2003.

IF YOU HAVE ANY QUESTIONS YOU MAY CONTACT ME AT 912-287-0342

HSMc

HENRY McLaughlin
PRETREATMENT MANAGER

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

City of Waycross

Office of City Engineer

ALLEN BRYSON
BCX CORPORATION
3 FOLK ST
WAYCROSS GA 31502

MR BRYSON

THIS IS A FORMAL "NOTICE OF VIOLATION" FOR THE MONTH OF JULY,2003. THE PARAMETERS IN QUESTION ARE:
NH3
TN
COPPER
ZINC
PLEASE SEND ME A UPDATED CORRECTIVE ACTION PLAN. FAILURE TO CORRECT THESE VIOLATIONS COULD RESULT IN FINES, SURCHARGES AND /OR SEWER USE DISCONNECTION.
IF YOU HAVE ANY QUESTIONS CALL ME AT 912-287-2945

HENRY MCLAUGHLIN
PRETREATMENT COORDINATOR

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

BCX, Incorporated
An Environmental / Energy Company

July 25, 2003

Scott Murphy
Plant Engineer
BCX Inc.
912-338-0402 ext. 106

Dear Henry,

On July 24, 2003, I received a copy of our formal notice of violation for the period of June, 2003. Please note that due to our internal sampling program, we were aware of many of the problems listed and had already begun to take steps to address those problems. Even though there were 21 permit violations during the month of June, this is a significant improvement over the 86 violations that were noted during the previous month. Our corrective plan of action is currently being implemented and is already producing much improved results. What follows is a summary of the corrective steps that we have taken to date and a synopsis of the corrective actions we intend to take during the next few weeks.

Phase One: The first phase of our corrective action plan actually began back in May. During this time, BCX initiated a nation wide search for a chemist with a background in contract water treatment and a history of correcting compliance issues. The new chemist was hired during the month of June and began work for BCX during the first week of July. During that first week of July, changes to our treatment programs were immediately put into place in order to address the compliance problems that were known at that time. Since that first week our daily and weekly samples have shown continual improvement.

Phase Two: During the second week of July, the BCX Water Treatment Operators went through daily training on the proper use and application of both the water treatment equipment and the water treatment chemicals. Also during this time, careful attention was paid to proper treatment pH and the careful application of a carbamate in order to remove soluble metals. Preliminary analytical results from this second

1859 EAST ADAMS ST. • JACKSONVILLE, FL 32202 • TEL. (904)356.3391 • FAX (904)356 0885
901 FRANCIS ST. • WAYCROSS, GA 31501 • TEL. (912)338.0402 • FAX (912)338.090:

BCX, Incorporated
An Environmental / Energy Company

week of July have shown that the application of the carbamate and proper treatment pH have reduced effluent metal loading to within permit limitations.

Phase Three: During the second week of July, BCX began an intensive research project with the goal of determining the most effective means for meeting our permit requirements. This research included experiments using many types of activated carbon, bentonite clay, and several other treatment chemistries, all aimed at yielding effluent consistently within permit guidelines. Also, during this time period research was conducted and continues to be conducted on the possible application of new equipment such as a pH control system, sand filters, ammonia air-stripper, ozone generators, and activated carbon filters.

Phase Four: In order to help meet compliance guidelines, BCX has begun training its sales force on the types of waters that will and will not be accepted by this facility. Also, all existing accounts are in the process of being characterized by our internal laboratory to identify those accounts which contain contaminants that would contribute to a possible permit violation. As this process is completed, those waste streams identified as containing high levels of ammonia, nitrogen, and other problematic pollutants will be segregated for individual treatment using specialized treatment processes.

Phase Five: On July 22, 2003, a shipment of new water treatment chemicals was received by BCX and immediately implemented into our water treatment processes. The use of these chemicals is a direct result of the research that was conducted during the first two weeks of July. This represents a significant investment by BCX with the goal of meeting our permit requirements. Also, on the same date, new laboratory equipment was ordered, which will allow BCX to test for such problematic contaminants as ammonia and total nitrogen in-house without the delay of waiting for results from an outside laboratory. Our intention is to test all water prior to discharge in our laboratory in order to determine whether or not further treatment is necessary to lower parameters such as COD, TSS, TN, Ammonia, and metals such as Copper, Zinc, and Lead.

BCX, Incorporated
An Environmental / Energy Company

Phase Six: BCX management has made a commitment to the production and/or purchase of new equipment such as: a pH control system, sand filtration system, and a carbon filtration system. We are currently doing extensive research into the best equipment for our particular application. As soon as we have determined the best equipment for our application, I will submit to you a detailed explanation of the equipment and copies of the research that helped to make the determination.

During the last week we have implemented new techniques and new chemistries, which will have a major impact on the quality of our effluent. As soon as our new test equipment arrives, we will begin holding all effluent prior to release while analytical work is done by our in-house lab. If we have any indication of a potential parameter violation, the water will be held and retreated. As soon as BCX has made the determination on which equipment will be built or purchased, we will notify your office and seek your input and approval.

If you have any questions, please contact me at (912) 338-0402.

Thank you,

Scott Murphy

City of Waycross

Office of City Engineer

9-16-03

ALLEN BRYSON
BCX CORPORATION
3 FOLK ST
WAYCROSS GA 31502

MR BRYSON

AFTER REVIEW OF YOUR AUGUST 2003 SAMPLE REPORTS I AM ISSUING A FORMAL "NOTICE OF VIOLATION". YOU MUST SUBMIT A CORRECTIVE PLAN OF ACTION IMMEDIATELY.WEEKLY SAMPLES SHOLD BE RESAMPLED AND RESULTS SENT IN WITH CORRECTIVE PLAN OF ACTION.THE FOLLOWING IS THE PARAMETERS OF CONCERN. FURTHER PERMIT VIOLATIONS COULD RESULT IN SERVICE DISCONNECT AND/OR SURCHARGES.

PERMIT VIOLATION FOR MONTH OF: AUGUST 2003
PARAMETERS
NH3
TN
COPPER
ZINC
P-CRESOL

IF YOU HAVE ANY QUESTIONS YOU MAY CONTACT ME AT 912-287-2945

HS McLaughlin

HENRY McLaughlin
PRETREATMENT MANAGER

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

City of Waycross
Office of City Engineer

10-16-03

SCOTT MURPHY
BCX CORPORATION
3 FOLK ST
WAYCROSS GA 31502

MR MURPHY

AFTER REVIEW OF YOUR SEPTEMBER 2003 SAMPLE REPORTS I AM ISSUING A FORMAL "NOTICE OF VIOLATION". YOU MUST SUBMIT A CORRECTIVE PLAN OF ACTION IMMEDIATELY.SINCE NITROGEN, TOTAL AND NH3 ARE DAILY SAMPLES NO REPEAT SAMPLE IS REQUIRED.WEEKLY SAMPLES SHOLD BE RESAMPLED AND SENT IN WITH CORRECTIVE PLAN OF ACTION.THE FOLLOWING IS THE PARAMETERS. FURTHER PERMIT VIOLATIONS COULD RESULT IN SERVICE DISCONNECT AND/OR SURCHARGES.

PERMIT VIOLATION FOR MONTH OF: SEPT 2003
PARAMETERS

NITROGEN, TOTAL
NH3
ZINC
SILVER

ZINC AND SILVER ARE CONSIDERED INSIGNIFICANT VIOLATIONS. NH3 AND TOTAL NITROGEN ARE CONSIDER SIGNIFICANT VIOLATIONS. THIS NEEDS YOUR IMMEDIATE ATTENTION.

IF YOU HAVE ANY QUESTIONS YOU MAY CONTACT ME AT 912-287-2945

Henry S. McLaughlin
HENRY McLaughlin
PRETREATMENT MANAGER

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

City of Waycross
Office of City Engineer

11-19-03

SCOTT MURPHY
BCX CORPORATION
3 FOLK ST
WAYCROSS GA 31502

MR MURPHY

THIS IS A FORMAL "NOTICE OF VIOLATION" FOR THE MONTH OF OCTOBER 2003. THE PARAMETERS IN QUESTION ARE:
NITROGEN, TOTAL (TN)
AMMONIA
BARIUM
PLEASE SEND ME AN UPDATED CORRECTIVE ACTION PLAN. FAILURE TO CORRECT THESE VIOLATIONS COULD RESULT IN FINES, SURCHARGES AND /OR SEWER USE DISCONNECTION. WHILE I UNDERSTAND YOUR EFFLUENT IS IMPROVING THIS TYPE OF PERMIT VIOLATION IS UNACCEPTABLE. AT PRESENT OUR TREATMENT PLANT IS HAVING AN AMMONIA REMOVAL PROBLEM AND CAN HANDLE NO MORE THAN PERMITTED LEVELS. IF YOU HAVE A PLAN TO ADDRESS YOUR AMMONIA PROBLEM THEN FORWARD THIS TO ME IMMEDIATELY.
IF YOU HAVE ANY QUESTIONS CALL ME AT 912-287-2945

Henry S McLaughlin
HENRY MCLAUGHLIN
PRETREATMENT COORDINATOR

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

BCX, Incorporated
An Environmental / Energy Company

Henry Mclaughlin
Pretreatment Coordinator
Waycross, GA 31501
November 29, 2003

Mr Mclaughlin:

I sincerely applogize for any additional burden that BCX is placing on the treatment plant in terms of additional ammonia loading. I understand that we need to correct our ammonia problem as quickly as possible in order to relieve this burden from your plant. As the weather has cooled substantially and the leachate ammonia levels coming to us have increased, we have found it increasingly difficult to meet our permit requirements. The analytical results that I have thus far for November show an increase in both our influent and effluent ammonia levels, this at a time when Waycross is having so much difficulty with the same issue. I'm including in this letter our plan for dealing with this ammonia problem as well as our plan for some radical changes to our plant design, which should help to make BCX a better partner with the city for waste water treatment. I ask for your patience over the next few weeks as we implement these changes. We hope to have these changes implemented by the end of January, 2004.

Step One: We have ordered and expect to take delivery of a ISCO autosampler model 3710FR with the next week. This model is fully flow proportional and is currently being programmed for our flowmeter. This will help to get completely accurate flow proportioned analytical results for our plant. Currently, the best way we have to composite sample is to pull samples from every tank before we discharge and combine them for our sample.

Step Two: We are having a steam system installed which will allow us bring the water up to temperature in order to allow our activated carbon to function more efficiently. The steam injections will also help to strip off our ammonia. This work is currently in process and should be finished by December 6.

Step Three: After we are able to get our water to the proper temperature, I am sending off samples to a company called Aeromix in Minneapolis MN. They will use this information to size a stripper to remove the vast majority of our ammonia, certainly enough to meet our permit requirements. I am including two of the quotes they have sent

1859 EAST ADAMS ST. • JACKSONVILLE, FL 32202 • TEL. (904)356.3391 • FAX (904)356.0885
901 FRANCIS ST. • WAYCROSS, GA 31501 • TEL. (912)338.0402 • FAX (912)338.090:

BCX, Incorporated
An Environmental / Energy Company

me for your scrutiny. If you have any concerns please touch base with me so that we can answer them be fore we commit to the purchase. Also, if you plan to revise down my ammonia limit, please give me some idea of what the new limit might be, as I will definitely need to take this into consideration when determining which model to purchase.

Step Four: We are taking the two large 44,000 gallon tanks currently on the lot and are converting them to equalize our effluent flow. Currently we discharge all of our water during one shift, which may be causing the treatment plant some difficulty because of our loading. With the tanks in place, our discharge will drop to a steady 35gpm (based on current flows) instead of the 150gpm pulses of flow from individual treatment tanks that we currently release. I am currently trying to find or develop a level sensing system which I can install to accomplish this.

Step Five: I am currently conducting biotoxicty studies of all of my individual accounts in order to determine if we are processing something, which may be causing harm to the city treament system. If something does come back as toxic we will develop an alternative treatment for the water from the account. Please forward to me the name and number of the lab that you recommend for the new style of test.

Step Six: You have indicated that you may need to adapt our discharge permit to reduce BOD and COD loadings on the plant. If you would get those new numbers to me as quickly as possible I would greatly appreciate it as I may need to change some plans I have to meet those new levels. If they are lowered substantially, I will need to investigate further effluent polishing techniques such as ultra filtration or carbon filtration.

If you have any questions, please call me at 338-0402.

Sincerely,

Scott Murphy
General Manager

1859 EAST ADAMS ST. · JACKSONVILLE, FL 32202 · TEL. (904)356.3391 · FAX (904)356.0885
901 FRANCIS ST. · WAYCROSS, GA 31501 · TEL. (912)338.0402 · FAX (912)338.0802

City of Waycross
Office of City Engineer

01-26-04

SCOTT MURPHY
BCX CORPORATION
901 FRANCIS ST
WAYCROSS GA 31502

MR MURPHY

AFTER REVIEW OF YOUR DECEMBER 2003 SAMPLE REPORTS I AM ISSUING A FORMAL "NOTICE OF VIOLATION". YOU MUST SUBMIT A CORRECTIVE PLAN OF ACTION IMMEDIATELY.SINCE B.O.D, COD, NITROGEN, TOTAL AND NH3 ARE DAILY SAMPLES NO REPEAT SAMPLE IS REQUIRED.WEEKLY SAMPLES SHOLD BE RESAMPLED AND SENT IN WITH CORRECTIVE PLAN OF ACTION. THIS CORRECTIVE ACTION PLAN SHOULD INCLUDED STEPS BEING TAKEN AND PROCESS BEING ADDED TO PUT YOUR FACILITY DISCHARGING WITHIN PERMITTED LEVELS.THE FOLLOWING IS THE PARAMETERS. FURTHER PERMIT VIOLATIONS COULD RESULT IN SERVICE DISCONNECT AND/OR SURCHARGES.

PERMIT VIOLATION FOR MONTH OF DEC 2003

PARAMETERS
BOD
COD
NITROGEN, TOTAL
NH3
COPPER
ZINC

BOD, COD, NH3 AND TOTAL NITROGEN ARE CONSIDER SIGNIFICANT VIOLATIONS. THIS NEEDS YOUR IMMEDIATE ATTENTION

IF YOU HAVE ANY QUESTIONS YOU MAY CONTACT ME AT 912-287-2945

HENRY MCLAUGHLIN
PRETREATMENT MANAGER

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

Reference 13

City of Waycross

Office of City Engineer

February 18, 2004

Mr. Scott Murphy
BCX Corporation
901 Francis Street
Waycross, Georgia 31502

Mr. Murphy:

After reviewing your January 2004 sample reports, The City of Waycross is issuing a formal *"Notice of Violation"*. BCX should submit a corrective action plan immediately. Since B.O.D., COD, Nitrogen, Total and NH3 are daily samples, no repeat sampling is required. Only weekly samples should be re-sampled and submitted with the corrective action plan. The corrective action plan should include steps taken and the process added to put your facility discharging within permitted levels. Further permit violations could result in a disconnected service and/or surcharges.

Permit Violations for month of January 2004

Parameters:
BOD
COD
Nitrogen, Total
NH3
Lead
Barium
Cadmium
Copper
Zinc

BOD, COD, NH3 and Total Nitrogen are considered significant violations. This matter needs your immediate attention. BCX's DMR should be updated with the correct parameter limits.

If you have any question you may call 912-287-2945

Sincerely,

Henry McLaughlin
Pre-treatment Manager

P.O. Drawer 99
Waycross, Georgia 31502
912/287-2945

City of Waycross

OFFICE OF CITY MANAGER

CONSENT ORDER

CITY OF WAYCROSS, GEORGIA

IN THE MATTER OF	*	ADMINISTRATIVE ORDER
	*	
BCX, Incorporated	*	CONSENT ORDER
901 Francis Street	*	
Waycross, Georgia 31501	*	
	*	

LEGAL AUTHORITY

The following findings are made and order issued pursuant to the authority vested on the City Manager, under Section 32-38 of the City's Local Limit Development for the City of Waycross for NPDES Permit No. GA0020-__ adopted and enforced pursuant to City's Sewer Use Ordinance ("Local Limit Regs."). This order is based on findings of violation of the conditions of the wastewater discharge permit issued under Section 32-37 of the City's Local Limit Regs.

FINDINGS

1. BCX, Incorporated discharges non-domestic wastewater containing pollutants into the sanitary sewer system of the City of Waycross (hereafter, "City").

2. BCX, Incorporated is a "significant industrial user" as defined by Section 32-31 of the City's Local Limit Regs.

3. BCX, Incorporated was issued wastewater discharge permit (Industrial Pretreatment Program, Permit Number 0009, hereinafter referred to as "Permit") on April 1, 2002 which contains prohibitions, restrictions and other limitations on the quality of the wastewater it discharges to the sanitary sewer.

4. Pursuant to the ordinance, Local Limit Regs., and the above-referenced Permit, data is routinely collected or submitted on the compliance status of BCX, Incorporated.

5. This data shows that BCX, Incorporated has violated its Permit in the following manner:

   - BCX, Incorporated has been issued notice of violations for the following months: May 2003, June 2003, July 2003, August 2003, September 2003, October 2003, December 2003, and January 2004. Details of the violations are more specifically set forth in the individual notices which have been forwarded to BCX, Incorporated for each month listed herein.

   - Each of the notices sent to BCX, Incorporated required BCX, Incorporated to submit a corrective action plan to address the violations. BCX, Incorporated has failed to submit a Corrective Action Plan that addresses how it will comply with its Permit for discharge of non-domestic wastewater under the Permit.

   - All of these violations satisfy the City's definition of significant violations.

P.O. DRAWER 99
WAYCROSS, GEORGIA 31502-0099
912/287-2912
FAX 912/287-2990
cmanager@waycrossga.com

City of Waycross

OFFICE OF CITY MANAGER

ORDER

THEREFORE, BASED ON THE ABOVE FINDINGS, BCX, INCORPORATED IS HEREBY ORDERED TO:

1. Take whatever steps necessary to adequately treat the wastewater of BCX, Incorporated to a level which will comply with its wastewater discharge permit immediately.

2. Prior to March 10, 2004, provide sufficient documentation in the form of a corrective action plan to demonstrate that the waste of BCX, Incorporated will be in compliance with its wastewater discharge permit.

3. Beginning March 10, 2004, BCX, Incorporated will be assessed a fine of $1,000 per day for each day in which BCX, Incorporated violates its discharge permit in accordance with Section 32-38 (f) of the Local Limit Regs. Fines shall be paid on a monthly basis and are due within 10 days of notice of violation.

4. If permit violations continue for the period from April 1, 2004 through April 15, 2004 City may, with notice to BCX, Incorporated, terminate the Permit and BCX, Incorporated will no longer be allowed to discharge wastewater into the City of Waycross sanitary sewer system.

5. All reports and notices required by this order shall be sent, in writing, to the following address:

   Mr. Henry McLaughlin
   Pretreatment Manager
   Wastewater Treatment Plant
   P. O. Box 99
   Waycross, Georgia 31502

6. This consent order does not constitute a waiver of the Permit, which Permit remains in full force and effect. The City reserves the right to seek any and all remedies available to it under Section 32-89 of the Local Limit Regs. and pursuant to applicable law for any violation cited by this order as well as any violation that takes place hereafter.

7. Failure to comply with the requirements of this order shall constitute further violation of the Sewer Use Ordinance and Local Limit Regs. and may subject BCX, Incorporated to civil or criminal penalties or such other appropriate enforcement response as may be appropriate.

8. This Consent Order is effective March 10, 2004 and shall remain in effect until March 1, 2005, unless modified, extended, or terminated by the Parties or by order of any court of competent jurisdiction.

City of Waycross

OFFICE OF CITY MANAGER

This the 27 day of JAN, 2004.

Signed: [signature]
James H. Nalley, Jr.
City Manager

Agreed to and consented to, BCX, Incorporated

By:________________________________

P.O. DRAWER 99
WAYCROSS, GEORGIA 31502-0099
912/287-2912
FAX 912/287-2990
cmanager@waycrossga.com

Reference 14

Sonny's Copy

BCX, Incorporated
An Environmental / Energy Company

March 3, 2004

Mr. Henry McLaughlin
Industrial Pretreatment Coordinator
City of Waycross
Water and Wastewater Department
PO Drawer 99
Waycross, GA 31502

Dear Mr. McLaughlin;

This letter will confirm our discussion at the City Manager's office earlier this afternoon.

BCX has immediately and voluntarily disconnected its facility located at #3 Folks Street, Waycross, Georgia from the City of Waycross Municipal Wastewater System.

Our facility will remain disconnected until the City of Waycross and BCX agree in writing that the connection may be restored. As agreed, we are working on a plan which we will present to you next week.

We sincerely appreciate everyone's participation in today's meeting.

Sincerely,

Ferrell J Carden
President

Cc: James H. Nalley, Jr. City Manager
Neal L. Conner, Jr., Esq
W.E. Bland City Engineer
Daniel E. Groselle, PE
J. Clay Sykes, PE

Reference 15

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1066 East, Atlanta, Georgia 30334-9000
Lonice C. Barrett, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
Office: 404/657-8831 404FAX: 404/657-8831

TRIP REPORT

April 8, 2004

SITE NAME AND LOCATION:	BCX Waycross Facility (BCX, Incorporated) 901 Frances Street Waycross, GA 31501
EPA ID NUMBER:	GAR000030007
COUNTY:	Ware
TRIP BY:	John E. Short JES Environmental Specialist Hazardous Waste Compliance Unit
DATE OF INVESTIGATION:	April 6, 2004
OFFICIALS CONTACTED:	Phil DeMarco, Plant Manager John Kalp, Environmental Specialist, EPD Coastal District Municipal Team
REFERENCE:	March 2003 Inspection Report

COMMENTS:

I. Background

This inspection was to be conducted as an evaluation of a used oil facility that notified as a used oil processor. This company ceased accepting industrial wastewater and stopped discharging to the Waycross POTW on March 1, 2004.

The City of Waycross issued Notices of Violation and an Administrative Order to BCX, Inc. due to many exceedances of the company's pre-treatment permit. This facility voluntarily shutdown on March 1, 2004 after their third wastewater pre-treatment permit with the city of Waycross went into effect. Allegedly, the new permit was issued in January and went into effect March 1, 2004 required parameters that were lower than in the previous two permits with the city. According to Mr. DeMarco, parameters set in the permit were cut in half, which would require different treatment including ultra filtration. BCX, Inc. viewed the permit as impossible to meet and therefore voluntarily closed. Additionally, the company had received 8 enforcement letters from May 2003 to December 2003 from the city of Waycross. In January, an Administrative Order was issued to BCX, Inc. from the city.

II. Findings

Wastewater is treated with the treatment process being adjusted (based on the results of treatability testing for each customer) for each batch to ensure the end product meets pretreatment standards. In general, the following wastewater steps are employed: Metals removal, Biological Oxygen Demand adjustment, total nitrogen removal, pH adjustment, total suspended solids removal, solids removal to filter press, sampling, analysis, and discharge to the city of Waycross. The following treatment chemicals are stored in bulk within secondary containment: Ferric acid, aluminum sulfate, sodium hydroxide and sulfuric acid.

Water is sent to through the wastewater treatment process (and eventually discharged to the City of Waycross POTW) and filter press sludge is sent to a Title V landfill (Broadhurst Environmental owned by Republic Services in Screvin, Georgia). Filter press sludge analytical (TCLP results) tested non-hazadous two separate times and is attached.

Each tank is equipped with an electronic high-level indicator that sounds a horn to alert employees that the pump failed or level dropped in the event of a release. The secondary containment holds the capacity of the 3 largest tanks. A recommendation was made to Mr. DeMarco to have the tank farm fenced in because it is very accessible to the public.

Some tanks are clearly labeled "used oil" even though they are not currently storing or processing used oil. The oil-water separator near the treatment tanks has not been used very often according to Mr. DeMarco. When it was used, a "miniscule" amount of oil was generated as stated by Mr. DeMarco. The separator was empty during the inspection. According to records, there have not been shipments of used oil from the facility. It is not clear where an oil layer, if present in wastewaters accepted, is sent to, be it the oil/water separator or a tank. Any oil would need to be tested for halogens and then sent off-site for energy recovery.

Mr. DeMarco stated that some of the tanks contained treated wastewater, untreated wastewater, and mixtures of various wastewaters from different customers. There was no documentation available that demonstrated exactly what was in each tank. Tanks were holding "retreated liquid, off-product, and mixtures" in different tanks. Mr. DeMarco indicated that the liquid stored in the containers was intended to go thru the treatment process and discharged to the city.

III. Record Review

Waste profiles for all customers (except the Bold and Hawaiian Tropic facilities) daily and weekly laboratory analytical wastewater effluent data (April 2003 – September 2003), manifests for January – May 2003 and a manifest/client summary document (attached).

A hand-written document dated 3/12/04 was obtained (attached) that indicated the gallons of liquid in each tank and the source, if applicable. Two of the tanks were empty according to the log. The only three customers referenced are GA Pacific, Colomer and Hawaiian Tropic.

Some of the profiles in the facility files were not for material accepted by BCX, Inc. according to Mr. DeMarco and manifests. For example, International Agile Mfg. (profile attached as "IAM") generates used oil and water and the company was a potential BCX, Inc. client; however, the material was never accepted by BCX, Inc. The profiles for Bold and Hawaiian Tropic were not reviewed during the inspection.

BCX, Inc. mainly receives "non-hazardous wastewater" as identified on manifests. Water from used oil refineries such as Four-Way Oil, Inc. in Cairo and Coastal Refining Co. in the past have sent "petroleum contact water/non-regulated wastewater (oily)" to BCX, Inc. for treatment. The waste profile and manifests for Four-Way Oil, Inc. are attached.

This company also receives landfill leachate from two different landfills – Nassau County, Florida landfill and Broadhurst Environmental in Screvin, Georgia. Vegetable oil and water is received from Colomer, which is similar to the Hawaiian Tropic wastewater according to Mr. DeMarco.

CONCLUSIONS:

This facility is not currently a used oil processor. However, facility representatives plan on processing used oil at some point.

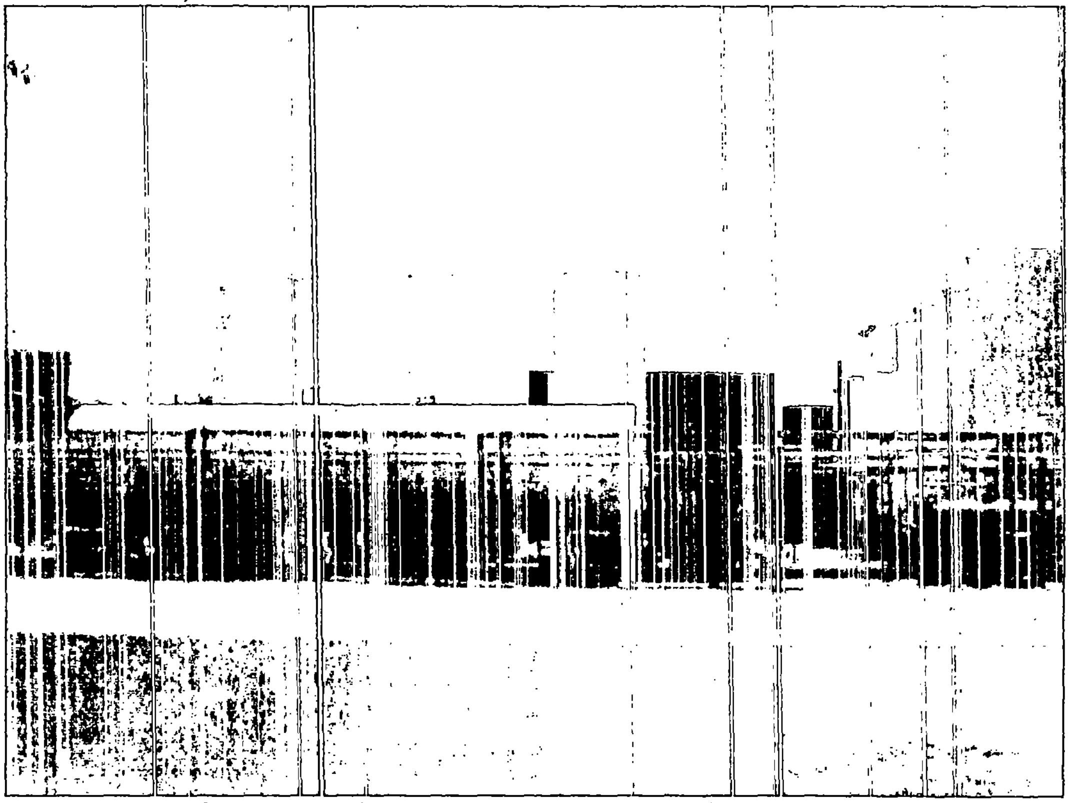
There was one violation observed during the inspection:

40 CFR Section 262.11, "Hazardous Waste Determination" – because the owner/operator failed to determine the contents of 27 tanks located in the facility aboveground tank farm and in the flocculation containers.

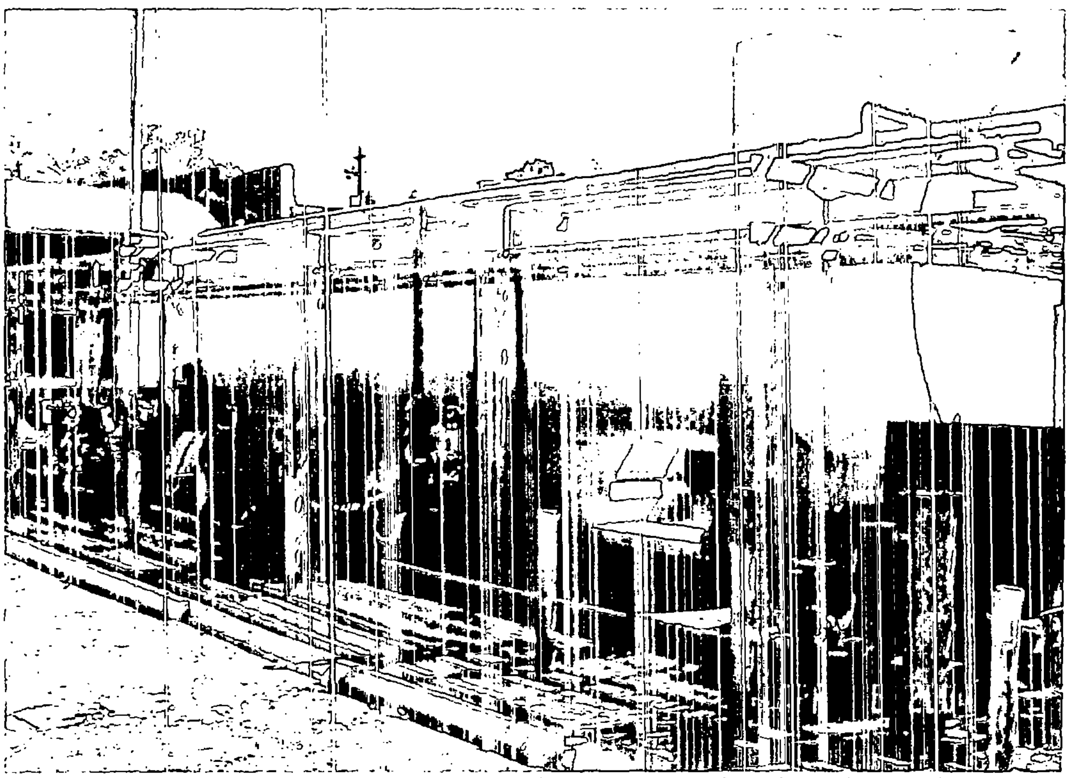
There were no violations of 40 CFR Part 279 observed during the inspection.

BCX WAYCROSS FACILITY
WAYCROSS, WARE COUNTY

APRIL 6, 2003
PHOTOS BY JOHN SHORT



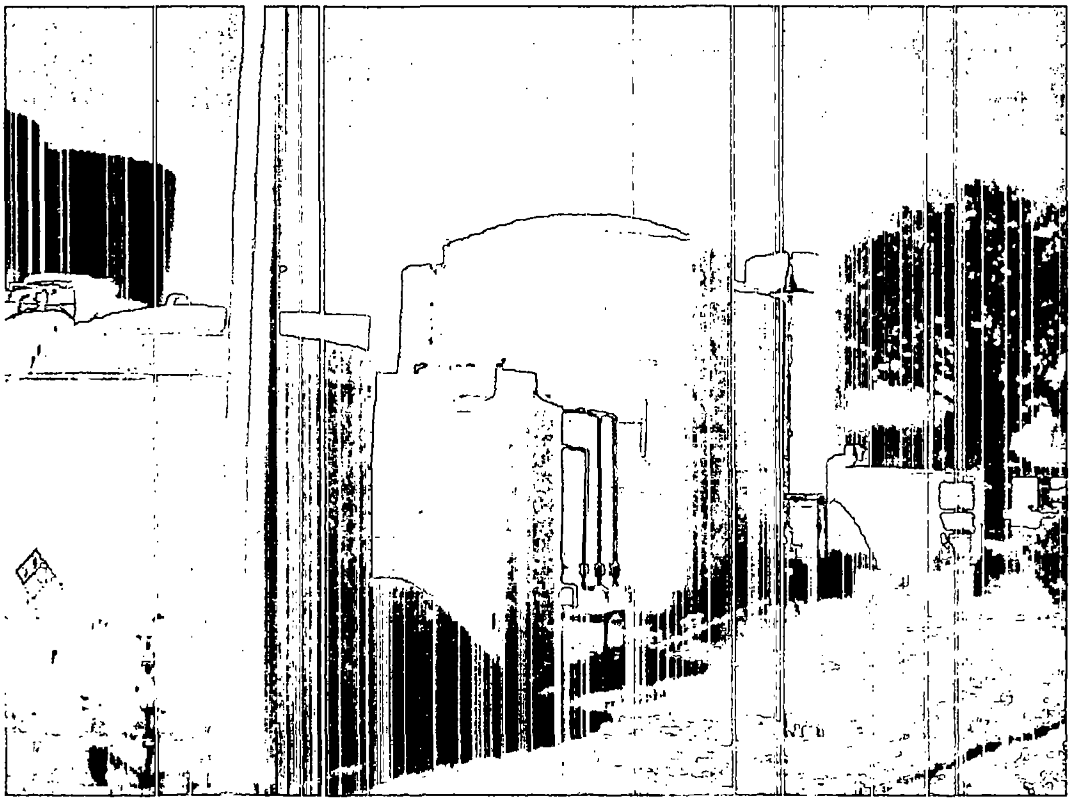
1. Overview of BCX tank farm as viewed from the office. This is where various transporters contracted thru BCX, Inc. unload incoming material. The four unloading stations are the darkened areas in front of the secondary containment curbing.



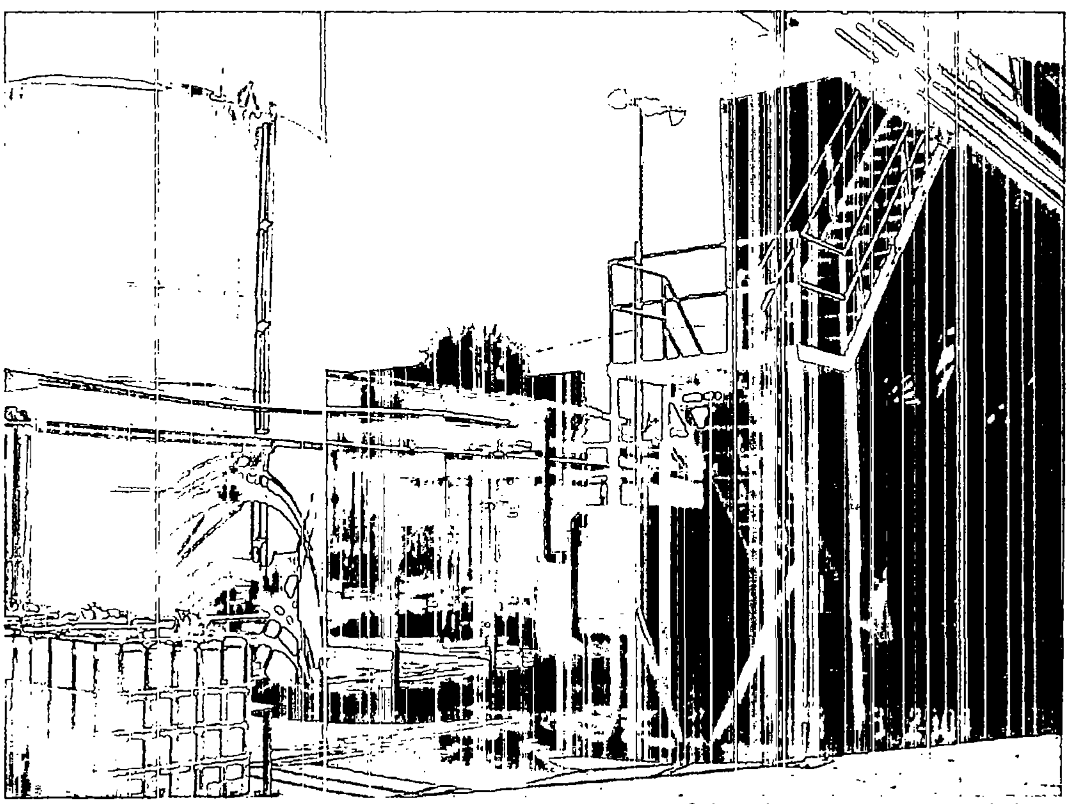
2. Unloading stations and tank CD-3, which contained 30,000 gallons of material from Georgia Pacific.

BCX WAYCROSS FACILITY
WAYCROSS, WARE COUNTY

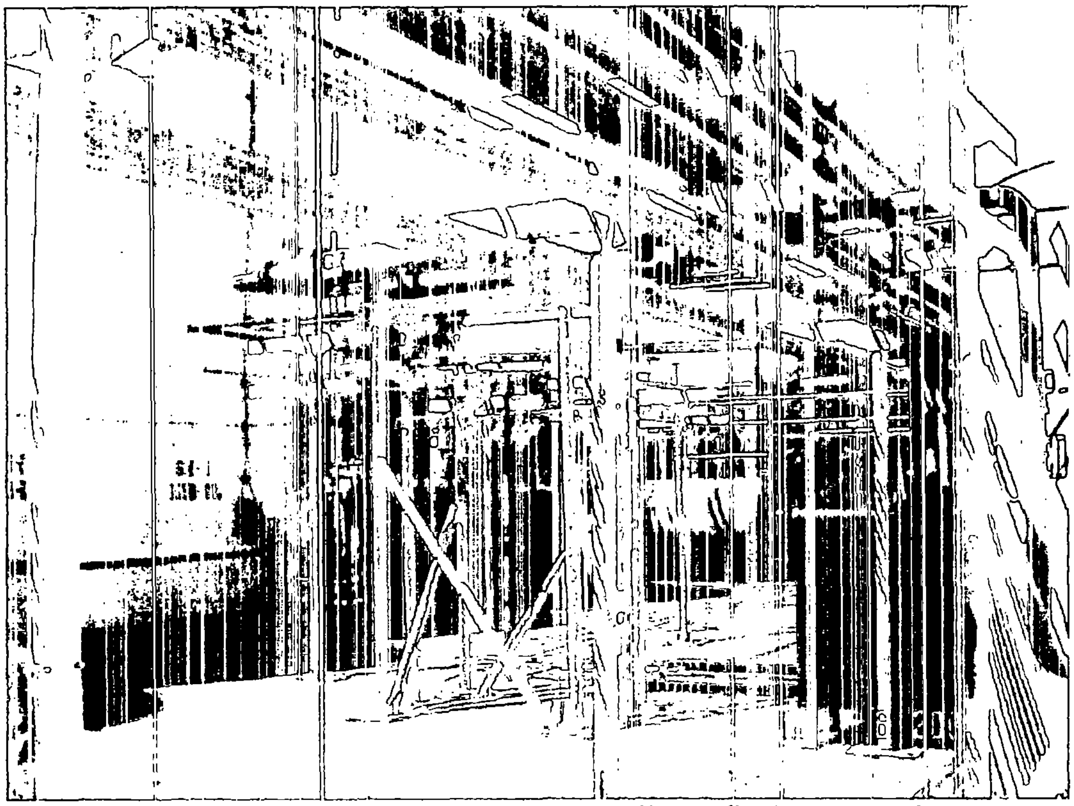
APRIL 6, 2003
PHOTOS BY JOHN SHORT



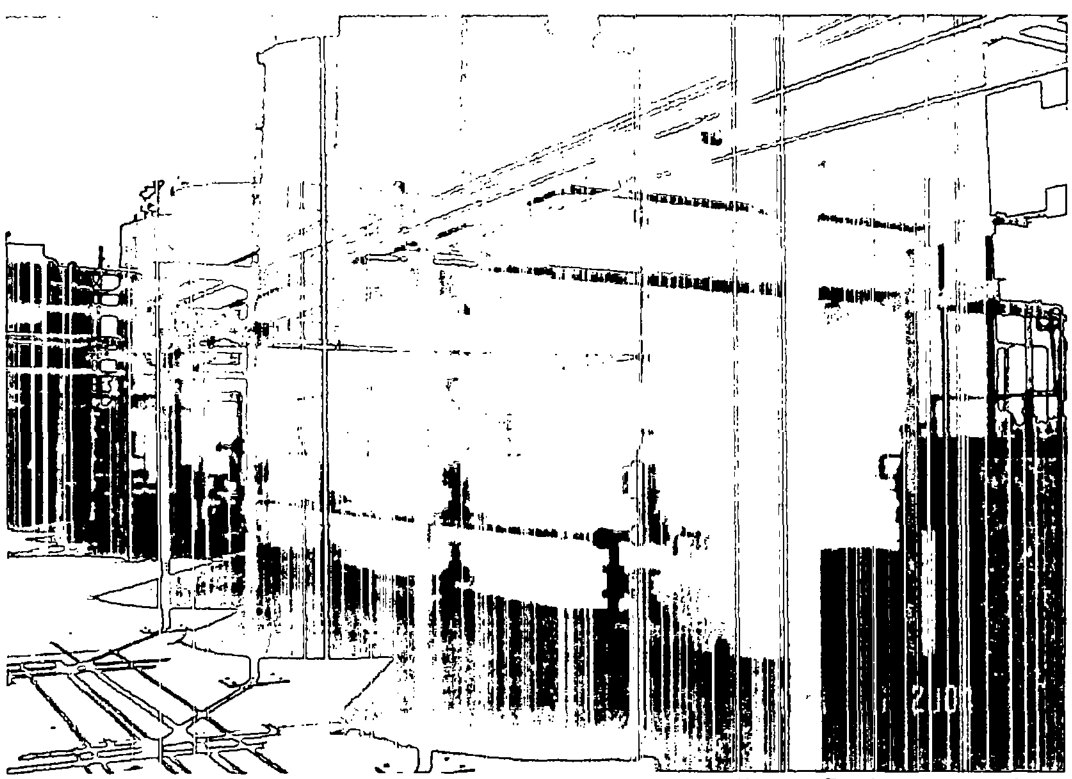
3. Two discharge tanks, two detention tanks in the center, and the city effluent monitoring/sampling unit to the far right.



4. Discharge tank, oil/water separator in the center of the photo (empty), and the treatment area.



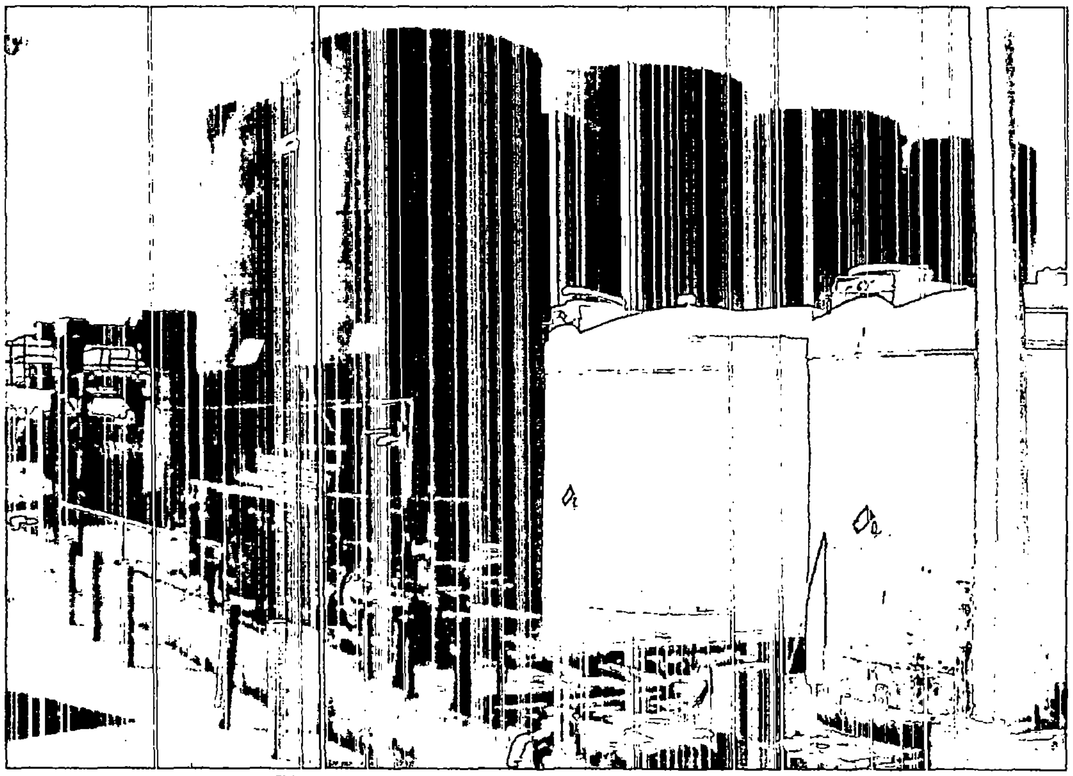
5. “Used Oil” tank (SH-1), containing 20,000 gallons “flock water and unknown mixture,” boiler (not used), air compressor, air tank, and pump station.



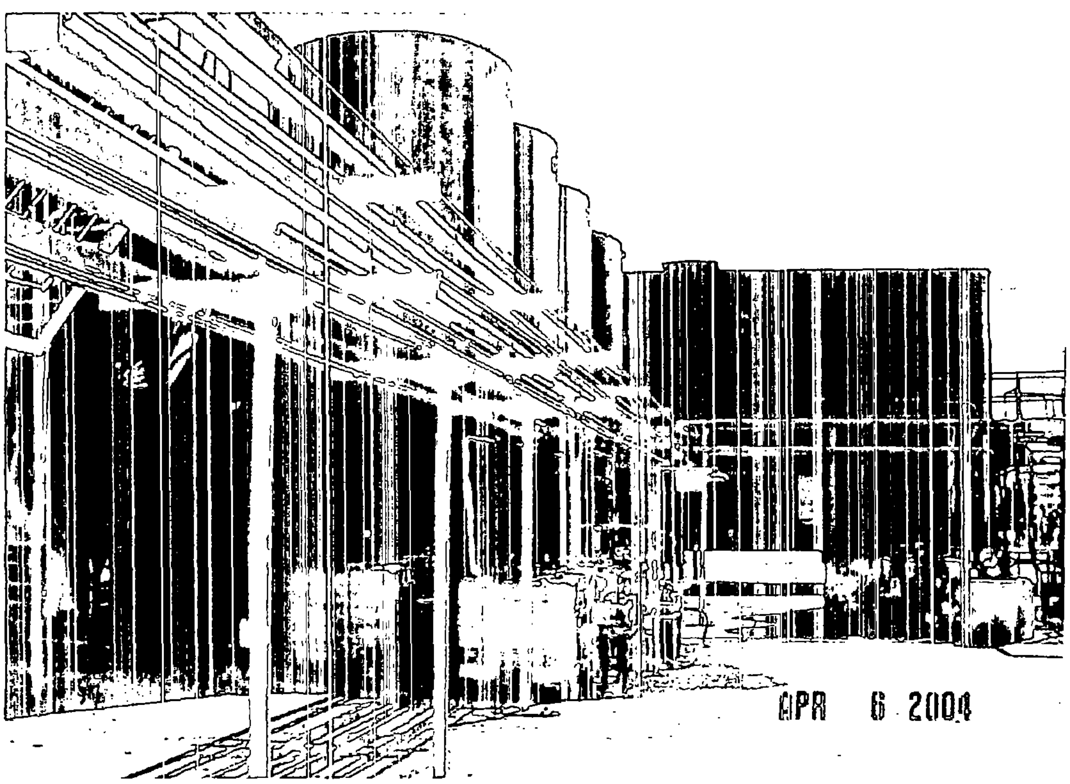
6. “Used Oil” tanks that actually each contain 20,000 gallons “flock water and unknown mixture.”

BCX WAYCROSS FACILITY
WAYCROSS, WARE COUNTY

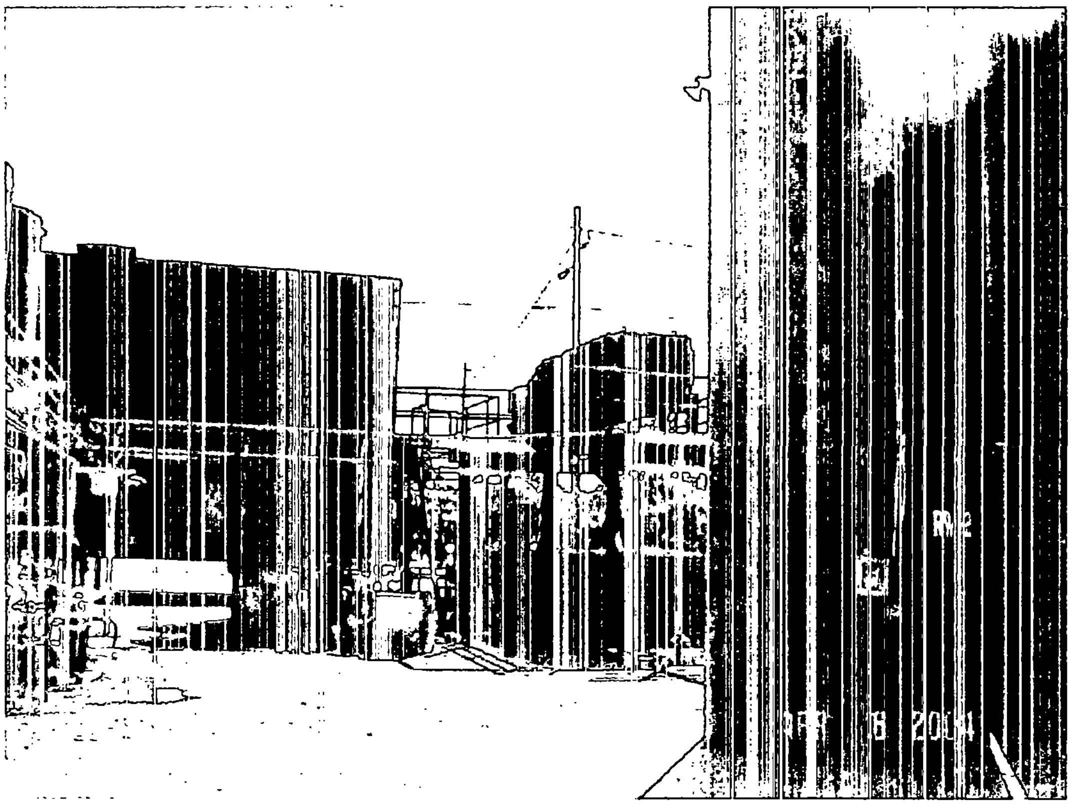
APRIL 6, 2003
PHOTOS BY JOHN SHORT



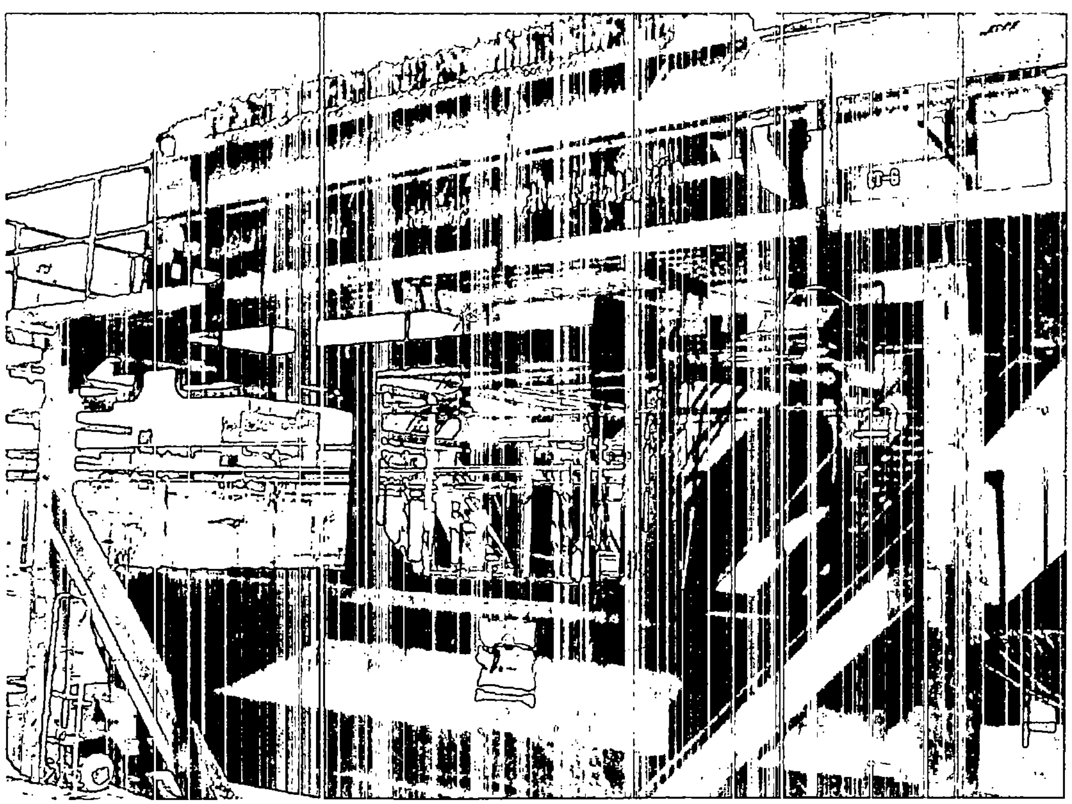
7. Treatment tanks, fill station (small green unit) and bulk storage of treatment chemicals. One of the two spill containment traps/sumps can be seen in the foreground.



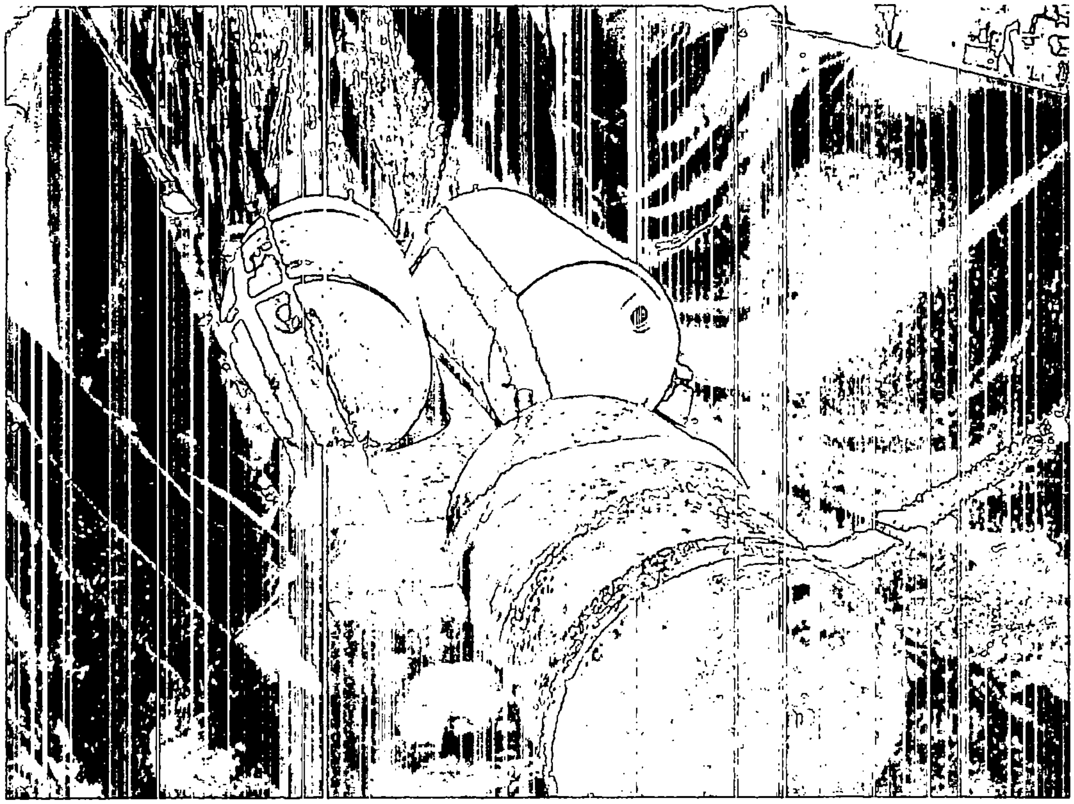
8. Treatment tanks, treatment chemicals in totes, and the solids tanks on the right that are connected to the filter press. The smaller containers on the right are used for polymer and lime mixing.



9. Solids tanks and filter press. RW-2 in the foreground contained filter press water, which is reused in the treatment process.

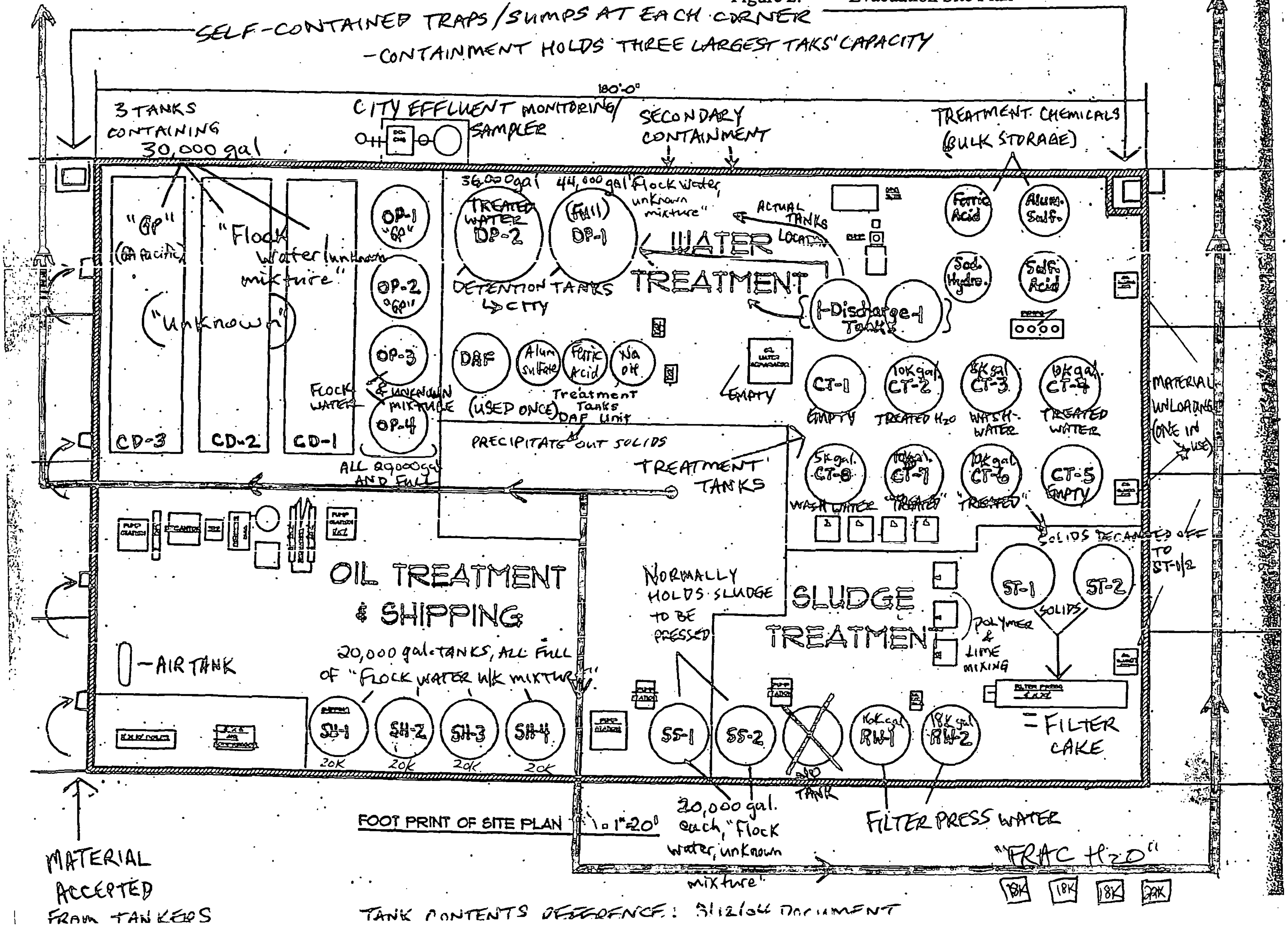


10. Filter press that drops semi-solid material into the roll-off container.



11. Inside the roll-off container that receives filter press sludge. According to Mr. DeMarco, there is some liquid that is released to the container. The landfill requires the filter sludge to be as dry as possible, so BCX adds sand to further solidify the watery sludge. The filter press was not in use during the inspection. The empty drums seen in this photo were going to the landfill for disposal as solid waste according to Mr. DeMarco.

Figure 2. SOURCE: Evacuation Site Plan



3/12/04

APR 6 2004

SS 1	20,000	Flock water uk mixtur
SS 2	20,000	Flock water uK mixture
RW 1	16,000	Filter press water
RW 2	18,000	Filter press water
SH 1	20,000	Flock water u/K mixture
SH 2	20,000	Flock water u/K mixture
SH 3	20,000	Flock water u/K mixture
SH 4	20,000	Flock water u/K mixture
CD 1	30,000	Flock water u/K mixture
CD 2	30,000	Flock water u/K mixture
CD 3	30,000	GP
OP 1	20,000	GP
OP 2	20,000	GP
OP3	20,000	Flock water u/K mixture
OP4	20,000	Flock water u/K mixture
DP 1	44,000	Flock water u/K mixture
DP 2	36,000	Treated water

CT 1 empty
CT 2 10,000 Treated water
CT 3 8,000 washwater
CT 4 10,000 Treated water
CT 5 empty
CT6 10,000 Treated
CT 7 10,000 Treate
CT8 5,000 wash wate

Frac A 18,000 GP
Frac B 18,000 GP
Frac C 18,000 GP
Frac D 22,000 Hawaiian Tropic / Colome

APR 6 2004

Totals of All water

Treated: 76,000 - 80,000

Filter press water 34,000

CA Pacific: 124,000

wash water: 13,000

Flock water: 264,000

Hawaiian T/colomer 22,000

Reference 16

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1066 East, Atlanta, Georgia 30334-9000
Lonice C. Barrett, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
PHONE 404/657-8831 FAX 404/463-6676

April 23, 2004

Mr. Phil DeMarco
Plant Manager
BCX, Incorporated
901 Frances Street
Waycross, GA 31501

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

SUBJECT: **NOTICE OF VIOLATION**
Used Oil Processor Inspection
BCX Waycross Facility (BCX, Incorporated)
Waycross, Ware County
EPA I.D. Number GAR000030007

Dear Mr. DeMarco:

On April 6, 2004, John Short of the Generator Compliance Program conducted a compliance evaluation inspection of the referenced facility. BCX, Inc. was evaluated for used oil processing activities because the facility notified as a Used Oil Processor in 2001.

BCX, Inc. was observed storing unidentified waste on-site in aboveground storage tanks. Because BCX, Inc. cannot discharge treated industrial wastewater to the City of Waycross POTW, tanks holding material became waste accumulation tanks and are therefore subject to hazardous waste requirements since BCX, Inc. has not determined if wastes stored in these tanks are hazardous or non-hazardous wastes.

Hazardous waste generators in Georgia are required to comply with Georgia's Hazardous Waste Management Act (O.C.G.A. 12-8-60 et. seq.), the Georgia Rules of Hazardous Waste Management (Chapter 391-3-11), and the Federal regulations adopted by reference. The following violation of Title 40 of the Code of Federal Regulations (CFR), Part 262 was observed during the inspection:

> 40 CFR Section 262.11, "Hazardous Waste Determination" – because the owner/operator failed to determine the contents of 27 tanks located in the facility's aboveground tank farm and in the four flocculation box tanks.

This violation should be corrected immediately. Please notify the Environmental Protection Division (EPD) how BCX, Inc. plans to handle the material in each container for disposal.

In order to resolve this violation, you are requested to sample each tank and submit copies of laboratory analyses to EPD indicating that each tank and the four flocculation containers has been tested (at a minimum) for the following: the four hazardous waste characteristics (ignitability, corrosivity, reactivity and toxicity), volatiles and semi-volatiles. Please notify the EPD at least one week in advance of the sampling date because EPD will split samples with BCX, Inc.

Please direct inquiries and correspondence on this subject to me at (404) 657-8831. Thank you for your cooperation in this matter.

Sincerely,

Freddie L. Dunn, Jr.

Freddie L. Dunn, Jr.
Unit Coordinator
Hazardous Waste Compliance Unit

FLD:JES

c: Renée Hudson Goodley
File: BCX Waycross Facility, Waycross

S:RDRIVE\JSHORT\BCX NOV.doc

BCX, Incorporated
An Environmental / Energy Company

June 3, 2004

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Dr., SE
Suite 1066
East Atlanta, GA 30334-9000

Freddie L. Dunn, Jr.
Unit Coordinator
Hazardous Waste Compliance Unit

Dear Mr. Dunn:

In response to the Notice of Violation dated April 23, 2004, the materials contained on-site at the BCX Wastewater Treatment Facility, 3 Folks Street, Waycross, GA are non-hazardous. Mr. Scott Murphy, who was formerly our Chief Chemist and Compliance Officer during the period that the existing material was delivered, processed, and treated, and was in charge of the identity and profiling of this material.

Mr. Murphy would have in-depth knowledge about the remaining product in the twenty-seven (27) tanks and I respectfully ask that you contact him as he would be better able to identify and explain the chemical makeup of this non-hazardous material.

Mr. Murphy is currently employed by ESG Engineering and is in charge of rectifying the problems at the City of Waycross Treatment Plant. Mr. Murphy may be reached at the following numbers: Cell (912) 218-2476, Office (912) 285-9621, Home (912) 287-2995.

If I can be of further assistance please do not hesitate to contact me.

Sincerely,

Ferrell J. Carden

Ferrell J. Carden
President

FJC/st

RECEIVED
JUN 3 2004
HAZARDOUS WASTE MANAGEMENT BRANCH
GENERATOR COMPLIANCE PROGRAM

Reference 17

BCX, Incorporated
An Environmental / Energy Company

CST
Ware

June 2, 2004

RECEIVED
JUN 07 2004
ENVIRONMENTAL PROTECTION DIV
COASTAL DISTRICT
BRUNSWICK OFFICE

Environmental Protection Division
Carolyn Hill
4220 International Parkway
Suite 101
Atlanta, GA 30354

Dear Mrs. Hill;

In reference to our telephone conversation of June 2, 2004, regarding the accidental discharge of non-hazardous waste water I provide you with the following information, as you requested. The discharge of approximately 4-5,000 gallons on non-hazardous waste water occurred at #3 Folks Street, Waycross, Georgia 31501. The cause appeared to be from a broken gasket from the front manhole cover of a frac-tank. The frac-tank number is F33RR and is a tank that was rented by our company, BCX, Inc.

The manhole cover was tightened and the product remaining in the tank is below the manhole cover and there appears to be no further danger of discharge from this tank.

I will report any other findings regarding this subject area. Please do not hesitate to give me a call.

Sincerely,

Ferrell J. Carden
President

FJC/st

Henry

859 EAST ADAMS ST. • JACKSONVILLE, FL 32202 • TEL. (904)356.3391 • FAX (904)356.0885
901 FRANCIS ST. • WAYCROSS, GA 31501 • TEL. (912)338.0402 • FAX (912)338.0902

Reference 18

Georgia Department of Natural Resources
2 Martin Luther King Jr. Drive, SE, Suite 1066 East, Atlanta, Georgia 30334-900(
Lonice C. Barrett, Commissione
Environmental Protection Divisio
Carol A. Couch, Ph.D., Directo
Office: 404/657-8831 FAX: 404/463-667

MEMORANDUM

DATE: July 29, 2004

TO: Freddie L. Dunn, Jr. FLD

FROM: Valincia Darby VD

SUBJECT: **Sampling Results**
BCX, Incorporated
Waycross, Ware County
GAR00003007

BCX, Inc. is a solid waste treatment facility that also notified as a used oil facility on December 11, 2001. The facility is located in downtown Waycross at the intersection of Francis Street and Folks Street. On June 14th Darrell Crosby, Manager of the EPD's Coastal District, informed the Generator Compliance Program of the June 2, 2004, release of 4,000-5,000 gallons of unknown liquid waste from a 10,000-gallon portable tank. The tank was leased by BCX for extra storage capacity. The Generator Compliance Program responded by initiating an investigation of the facility on June 23, 2004. This investigation consisted of the sampling of two locations. First, the background sample was obtained from a condensed, vegetated area upgradient from the release. The other sample was obtained from the spill site approximately two feet from the tank that had the release. The samples were placed on ice and transported to the EPD Laboratory on June 24th in order to be tested for metals, volatiles and semivolatiles.

The laboratory results indicate that the soil sample that was obtained from the area of the release contained 13 mg/kg of barium, but this was not enough to warrant a TCLP analysis. Analysis of the background sample detected levels of arsenic at 12 mg/kg, barium at 44 mg/kg, cadmium at 1.0 mg/kg, chromium at 15 mg/kg and lead at 110 mg/kg. Notification is required under the Hazardous Sites Response Act (HSRA) since the soil concentration for lead exceeded the 75 mg/kg HSRA trigger. Because of the amount of lead in the sample, TCLP extraction was warranted. The sample did not fail for TCLP, but barium was detected at .24 mg/L. The regulatory level for barium is 100 mg/L. The analytical results from the EPD Laboratory are attached.

Attachments: Chart Summarizing Laboratory Results
Aerial Photograph of sample locations
Chain of Custody
Laboratory Sample Request
Laboratory Results (2)

c: Renée Hudson Goodley
File: BCX, Incorporated, Waycross
S:\rdrive\Darby\fy04\bcx sampling results memo1.doc

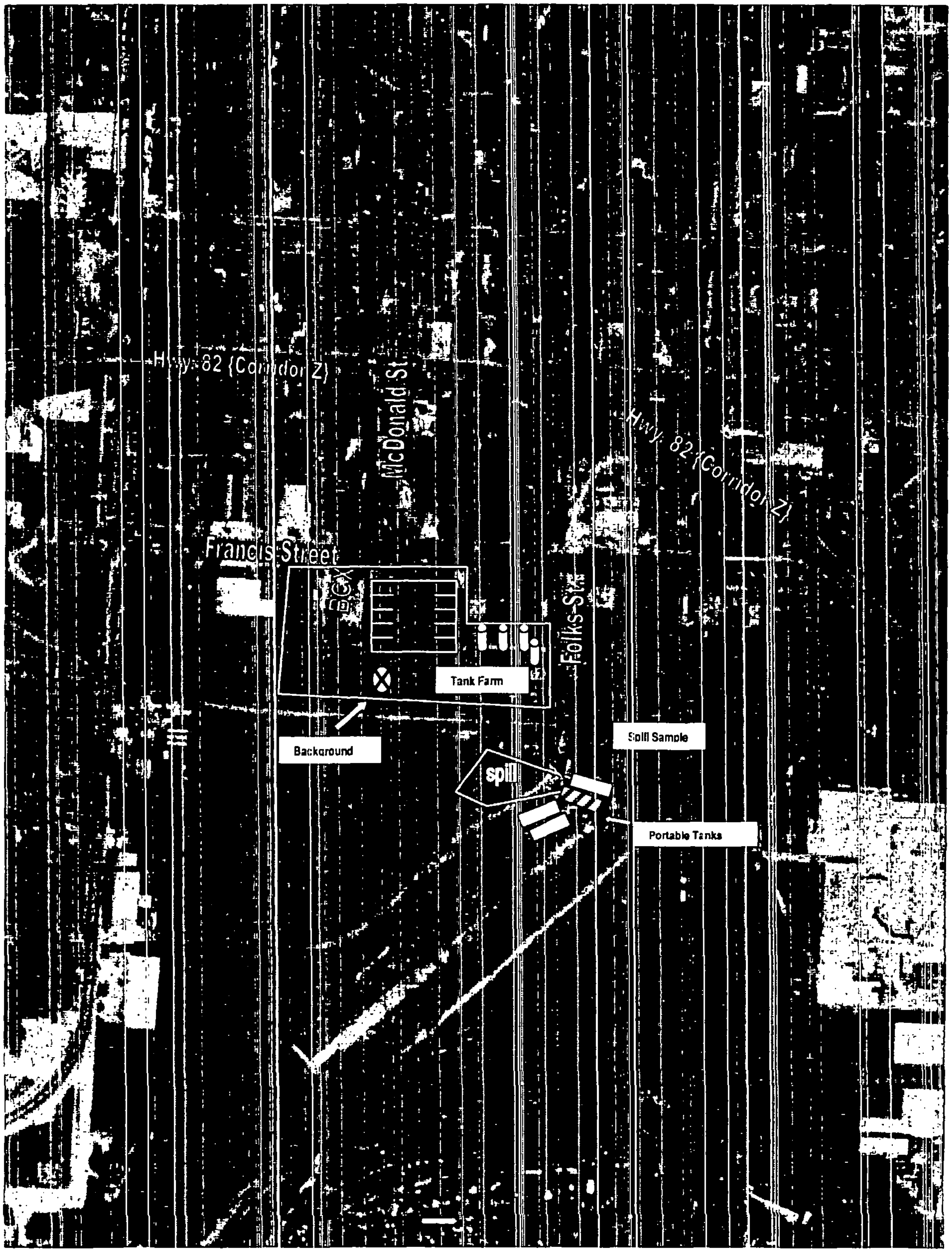
BCX
LABORATORY RESULTS

LABORATORY NUMBER	SAMPLE TYPE	PARAMETER ANALYZED	ANALYTICAL RESULTS	TCLP REGULATORY LIMIT	HSRA REGULATORY LIMIT
9773	Background soil sample	TCLP Metals Volatiles Semi-Volatiles	Arsenic – 12 mg/kg Barium – 44 mg/kg Cadmium – 1.0 mg/kg Chromium – 15 mg/kg Lead – 110 mg/kg	5.0 mg/L 100.0 mg/L 1.0 mg/L 5.0 mg/L 5.0 mg/L	20 mg/kg 1000 mg/kg 2.0 mg/kg 100 mg/kg 75 mg/kg
9774	Soil sample of waste	TCLP Metals Volatiles Semi-Volatiles	Barium – 13 mg/kg	100.0 mg/L	1000.0 mg/kg

1. The analytical results are totals presented in mg/kg.
2. The TCLP regulatory limits are presented in mg/L.
3. The HSRA regulatory limits are presented in mg/kg.
4. Lead exceeded the 75 mg/kg HSRA regulatory limit which trigger notification under the Hazardous Sites Response Act.

S:\rdrive\darby\fy2004\BCX lab results.doc

BCX, Incorporated
Waycross, Ware County
GAR000030007



Legend
⊗ Background Sample
Spill Tank

Arial photograph taken from Terra-server.Microsoft.com

HAZARDOUS WASTE MANAGEMENT BRANCH (HWMB)
REQUEST FOR LABORATORY ANALYSIS

Facility Name/Location: BCX Waycross Facility, Waycross Georgia

Sample Collected By/Phone: Valincia Darby, Freddie Dunn (404) 657-8831

Collection Date: 6/23/04 **LAB No.** ______

Date Submitted To Lab: 9773 6/24/04

HWMB LOG NUMBER: ______

File a separate Request Sheet for each sample point)

Analysis Needed By: Routine ✓ Other (specify) ______

Sample Description (check one)

Waste	______	Soil/Sediment	✓	Sludge	______
Ground Water	______	Surface Water	______	Drinking Water Well	______

Concentration of Organics Requested (estimated): High ___ Low ___ Other (e.g., rinse blank - specify) ______

Describe Sample Including Source and Known Properties (e.g. p'

Sample ID AE53881
Location: HWMB
Description: BCX WAYCROSS FACILITY HW9773
Collector: DUNN/DARBY
Site:

Applicable Hazardous Waste Codes (if known) ______

Special Precautions:

RECEIVED
JUL 20 2004
GENERATOR COMPLIANCE PROGRAM
HAZARDOUS WASTE MANAGEMENT BRANCH

ANALYSIS REQUIRED

(Note: Totals will always be run first. A TCLP will subsequently be run only if the total value indicates a positive TCLP could result)

1. TOTAL ORGANICS ✓

- Semi-Volatiles (Acid & Base\Neutral) ______
- Volatiles ✓
- Pesticides ______
- Herbicides ______
- Organophosphorus Pesticides ______
- PCB ______
- BETX ______
- Total Petroleum Hydrocarbon ______

1 4 OZ. JARS
6 8 OZ. JARS
2 16 OZ. JARS
4 Encores

Organics Special Requests: ______

2. TOTAL METALS

- ICP Metals Scan (Ag,As,Ba,Cd,Cr,Ni,Pb,Se) ✓
- Mercury ______
- Metals Special Requests: ______

3. TCLP ORGANICS If warranted

- Volatiles ✓
- Semi-Volatiles (Acid & Base/Neutral) ✓
- Pesticides ______
- Herbicides ______
- Additional Specific Organics for TCLP: ______

4. TCLP METALS ANALYSIS If warranted

- TCLP Metals (Ag,As,Ba,Cd,Cr,Ni,Pb,Se) ✓ Additional Metals for TCLP: ______
- Mercury ✓

5. ADDITIONAL ANALYSIS REQUESTED (see list on back): ______

TNB

Reviewed By: (HWMB): [signature] Date: 6/18/04 Reviewed By (EPD Lab):
Approved By:(HWMB): [signature] Date: 6-18-04 Date (EPD Lab):

Preservative Confirmed
Ph <2 ______ >12 ______
Temp 6.0

S:/rdrive/forms/Request for Lab Analysis.doc

GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

455 14th Street NW, Atlanta, GA 30318-7900
(404) 206-5269

LABORATORY REPORT

TO: Georgia Env Protection Divison
Hazardous Waste Mgmt Branch
205 Butler St SE Suite 1154E
Atlanta, GA 30334

Sample ID:	AE53881
Facility Name:	Bcx Waycross Facility /Hw9773
Site ID:	HWMB
Location ID:	
Location Descr:	HW9773 BACKGROUND

Date Collected:	6/23/2004
Time Collected:	12:57
Sample Collector:	DUNN/DARBY
Chlorination:	
Sample Type:	
Received By:	TNB
Date Received:	6/24/2004
Time Received:	2:44 PM
Project:	HW
Reporting Date:	7/16/2004
Received Temperature:	0.0 °C

ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	QUALIFIER UNITS	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
8260B in Soil QC Batch 68932									
Dibromofluoromethane(Surrogate QC Std.)			EPA 8260B	45	ug/Kg	5.8	KDD	6/28/2004	*41 to 63.5*
1,2-Dichloroethane-d4(Surrogate QC Std.)			EPA 8260B	44	ug/Kg	5.8	KDD	6/28/2004	*36 to 62.5*
T[illegible]e-d8(Surrogate QC Std.)			EPA 8260B	47	ug/Kg	5.8	KDD	6/28/2004	*34.5 to 56.5*
B[illegible]luorobenzene(Surrogate QC Std.)			EPA 8260B	43	ug/Kg	5.8	KDD	6/28/2004	*35.5 to 58.5*
Dichlorodifluoromethane	34668		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
Chloromethane	34418		EPA 8260B	Not Detected	ug/Kg	12	KDD	6/28/2004	
Vinyl chloride	39175		EPA 8260B	Not Detected	ug/Kg	2.3	KDD	6/28/2004	
Bromomethane	34413		EPA 8260B	Not Detected	ug/Kg	12	KDD	6/28/2004	
Chloroethane	34311		EPA 8260B	Not Detected	ug/Kg	12	KDD	6/28/2004	
Trichlorofluoromethane	34488		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
1,1-Dichloroethene	34501		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
Acetone	81552		EPA 8260B	Not Detected	ug/Kg	120	KDD	6/28/2004	
1,1,2-Trichlorotrifluoroethane	81611		EPA 8260B	Not Detected	ug/Kg	12	KDD	6/28/2004	
Iodomethane	77424		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
Carbon disulfide	77041		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
Methyl acetate	77032		EPA 8260B	Not Detected	ug/Kg	12	KDD	6/28/2004	
Methylene chloride	34423		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
trans-1,2-Dichloroethene	34546		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
Methyl tert-butyl ether	46491		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
1,1-Dichloroethane	34496		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
Vinyl acetate	77057		EPA 8260B	Not Detected	ug/Kg	58	KDD	6/28/2004	
2,2-Dichloropropane	77170		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
cis-1,2-Dichloroethene	77093		EPA 8260B	Not Detected	ug/Kg	5.8	KDD	6/28/2004	
2-Butanone	81595		EPA 8260B	Not Detected	ug/Kg	120	KDD	6/28/2004	

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Metals:	Mark Tolbert	404-206-5240
Organics:	Danny Reed	404-206-5252
GC Mass Spec:	Steve Bryan	404-206-5260
Microbiology:	Viola Reynolds	404-206-5210

ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	UNITS	QUALIFIER	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
Bromochloromethane	77297		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Chloroform	32106		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,1,1-Trichloroethane	34506		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Cyclohexane	81570		EPA 8260B	Not Detected	ug/Kg		12	KDD	6/28/2004	
Carbon tetrachloride	32102		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,1-Dichloropropene	77168		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Benzene	34030		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,2-Dichloroethane	32103		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Trichloroethene	39180		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Methylcyclohexane			EPA 8260B	Not Detected	ug/Kg		12	KDD	6/28/2004	
1,2-Dichloropropane	34541		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Dibromomethane	77596		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Bromodichloromethane	32101		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
cis-1,3-Dichloropropene	34704		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
4-Methyl-2-pentanone	81596		EPA 8260B	Not Detected	ug/Kg		58	KDD	6/28/2004	
Toluene	34010		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
trans-1,3-Dichloropropene	34699		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,1,2-Trichloroethane	34511		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Tetrachloroethene	34475		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,3-Dichloropropane	77173		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
2-Hexanone	77103		EPA 8260B	Not Detected	ug/Kg		58	KDD	6/28/2004	
Dibromochloromethane	32105		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,2-Dibromoethane	77651		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Chlorobenzene	34301		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,1,1,2-Tetrachloroethane	77562		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Ethylbenzene	34371		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
p,m-Xylene	77135		EPA 8260B	Not Detected	ug/Kg		12	KDD	6/28/2004	
o-Xylene	77135		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Styrene	77128		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Bromoform	32104		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Isopropylbenzene	77223		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
Bromobenzene	81555		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,1,2,2-Tetrachloroethane	34516		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,2,3-Trichloropropane	77443		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
N-Propylbenzene	77224		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
2-Chlorotoluene	77275		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
4-Chlorotoluene	77277		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,3,5-Trimethylbenzene	77226		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
tert-Butylbenzene	77353		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,2,4-Trimethylbenzene	77222		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
sec-Butylbenzene	77350		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,3-Dichlorobenzene	34566		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
p-Isopropyltoluene	77356		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,4-Dichlorobenzene	34571		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,2-Dichlorobenzene	34536		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
n-Butylbenzene	77342		EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	
1,2-Dibromo-3-chloropropane			EPA 8260B	Not Detected	ug/Kg		5.8	KDD	6/28/2004	

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Sample ID: AE53881

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1,2,4-Trichlorobenzene	34551		EPA 8260B	Not Detected		ug/Kg	5.8	KDD	6/28/2004	
Hexachlorobutadiene	38702		EPA 8260B	Not Detected		ug/Kg	5.8	KDD	6/28/2004	
Naphthalene	34696		EPA 8260B	Not Detected		ug/Kg	5.8	KDD	6/28/2004	
1,2,3-Trichlorobenzene	77613		EPA 8260B	Not Detected		ug/Kg	5.8	KDD	6/28/2004	
Total Hydrocarbons			EPA 8260B	170	TIE	ug/Kg		KDD	6/28/2004	
Total Aldehydes			EPA 8260B	130	TIE	ug/Kg		KDD	6/28/2004	
8270 Semi-Vol in SOIL QC Batch 68933										
2-Fluorophenol(Surrogate QC Std.)			EPA 8270C	88		ug/kg (dw)	0.00	PS	7/1/2004	*30 to 108*
Phenol-d5(Surrogate QC Std.)			EPA 8270C	94		ug/kg (dw)	0.00	PS	7/1/2004	*43 to 111*
Nitrobenzene-d5(Surrogate QC Std.)			EPA 8270C	89		ug/kg (dw)	0.00	PS	7/1/2004	*54 to 112*
2-Fluorobiphenyl(Surrogate QC Std.)			EPA 8270C	92		ug/kg (dw)	0.00	PS	7/1/2004	*57 to 120*
2,4,6-Tribromophenol(Surrogate QC Std.)			EPA 8270C	100		ug/kg (dw)	0.00	PS	7/1/2004	*20 to 130*
Terphenyl-d14(Surrogate QC Std.)			EPA 8270C	110		ug/kg (dw)	0.00	PS	7/1/2004	*64 to 123*
Pyridine	77045		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
n-Nitrosodimethylamine	34438		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2-Picoline	77088		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Methylmethanesulfonate	73595		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Ethylmethanesulfonate	73571		EPA 8270C	Not Detected		ug/kg (dw)	2200	PS	7/1/2004	
Aniline	77089		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Benzaldehyde			EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Phenol	34694		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
bis(2-Chloroethyl)ether	34273		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2-Chlorophenol	34586		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1,3-Dichlorobenzene	34566		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1,4-Dichlorobenzene	34571		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Benzyl Alcohol	77147		EPA 8270C	Not Detected		ug/kg (dw)	2200	PS	7/1/2004	
1,2-Dichlorobenzene	34536		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2-Methylphenol			EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Bis(2-Chloroisopropyl)ether	34283		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Acetophenone	81553		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4-Methylphenol			EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
N-Nitroso-di-n-propylamine	34428		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Hexachloroethane	34396		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Nitrobenzene	34447		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
N-Nitrosopiperidine	73619		EPA 8270C	Not Detected		ug/kg (dw)	2200	PS	7/1/2004	
Isophorone	34408		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2-Nitrophenol	34591		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2,4-Dimethylphenol	34606		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Bis(2-Chloroethoxy)methane	34278		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Benzoic Acid	77247		EPA 8270C	Not Detected		ug/kg (dw)	5600	PS	7/1/2004	
2,4-Dichlorophenol	34601		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1,2,4-Trichlorobenzene	34551		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
aa-Dimethyl-Phenethylamine	73564		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Naphthalene	34696		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4-Chloroaniline	73529		EPA 8270C	Not Detected		ug/kg (dw)	2200	PS	7/1/2004	
2,6-Dichlorophenol	77541		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Hexachlorobutadiene	38702		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	

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Ca[illegible]actam			EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
N[illegible]so-di-n-butylamine	73609		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4-Chloro-3-Methylphenol	34452		EPA 8270C	Not Detected		ug/kg (dw)	2200	PS	7/1/2004	
2-Methylnaphthalene	77416		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1,2,4,5-Tetrachlorobenzene	77734		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Hexachlorocyclopentadiene	34386		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2,4,6-Trichlorophenol	34621		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2,4,5-Trichlorophenol	77687		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1,1'-Biphenyl			EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2-Chloronaphthalene	34581		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1-Chloronaphthalene			EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2-Nitroaniline	78142		EPA 8270C	Not Detected		ug/kg (dw)	5600	PS	7/1/2004	
Dimethylphthalate	34341		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Acenaphthylene	34200		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2,6-Dinitrotoluene	34626		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
3-Nitroaniline	78300		EPA 8270C	Not Detected		ug/kg (dw)	5600	PS	7/1/2004	
Acenaphthene	34205		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2,4-Dinitrophenol	34616		EPA 8270C	Not Detected		ug/kg (dw)	5600	PS	7/1/2004	
4-Nitrophenol	34646		EPA 8270C	Not Detected		ug/kg (dw)	5600	PS	7/1/2004	
Dibenzofuran	81302		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Pentachlorobenzene	77793		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2,4-Dinitrotoluene	34611		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1-Naphthylamine	73600		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2-Naphthylamine	73601		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
2,3,4,6-Tetrachlorophenol			EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Diethylphthalate	34336		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Fl[illegible]e	34381		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4-[illegible]rophenyl-Phenylether	34641		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4-Nitroaniline	30342		EPA 8270C	Not Detected		ug/kg (dw)	2200	PS	7/1/2004	
Diphenylamine	77579		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4,6-Dinitro-2-Methylphenol	34657		EPA 8270C	Not Detected		ug/kg (dw)	5600	PS	7/1/2004	
N-Nitrosodiphenylamine	34433		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
1,2-Diphenylhydrazine	34346		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4-Bromophenyl-phenylether	34636		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Phenacetin	62018		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Hexachlorobenzene	39700		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Atrazine	39033		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
4-Aminobiphenyl	77581		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Pentachlorophenol	39032		EPA 8270C	Not Detected		ug/kg (dw)	5600	PS	7/1/2004	
Pronamide	39080		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Pentachloronitrobenzene	81316		EPA 8270C	Not Detected		ug/kg (dw)	2200	PS	7/1/2004	
Phenanthrene	34461		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Anthracene	34220		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Carbazole	82618		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Di-n-Butylphthalate	39110		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Fluoranthene	34376		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	
Benzidine	39120		EPA 8270C	Not Detected		ug/kg (dw)	1100	PS	7/1/2004	

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GC Mass Spec:	Steve Bryan	404-206-5260
Microbiology:	Viola Reynolds	404-206-5210

ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	UNITS	QUALIFIER	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
Py[illegible]e	34469		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
[illegible]ethylaminoazobenzene	73558		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Butylbenzylphthalate	34292		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Benzo[a]anthracene	34526		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
3,3'-Dichlorobenzidine	34631		EPA 8270C	Not Detected	ug/kg (dw)		2200	PS	7/1/2004	
Chyrsene	34320		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Bis(2-Ethylhexyl)phthalate	39100		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Di-n-octylphthalate	34596		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Benzo[b]fluoranthene	34230		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Benzo[k]fluoranthene	34242		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
7,12-Dimethylbenz(a)anthracen	73559		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Benzo[a]pyrene	34247		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
3-Methylcholanthrene	73591		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Dibenz(a,j)acridine			EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Indeno[1,2,3-cd]pyrene	34403		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Dibenz[a,h]anthracene	34556		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Benzo[g,h,i]perylene	34621		EPA 8270C	Not Detected	ug/kg (dw)	J	1100	PS	7/1/2004	
Alpha-BHC	39337		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Gamma-BHC	39340		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Beta-BHC	39338		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Delta-BHC	34259		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Heptachlor	39410		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Aldrin	39330		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Heptachlor Epoxide	39420		EPA 8270C	Not Detected	ug/kg (dw)		2800	PS	7/1/2004	
Endosulfan 1	34361		EPA 8270C	Not Detected	ug/kg (dw)		5600	PS	7/1/2004	
Dieldrin	39380		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
p[illegible]E	39320		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
E[illegible]	39390		EPA 8270C	Not Detected	ug/kg (dw)		2700	PS	7/1/2004	
Endosulfan 2	34356		EPA 8270C	Not Detected	ug/kg (dw)		5600	PS	7/1/2004	
p,p'-DDD	39310		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Endrin Aldehyde	34366		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Endosulfan Sulfate	34351		EPA 8270C	Not Detected	ug/kg (dw)		2800	PS	7/1/2004	
p,p'-DDT	39300		EPA 8270C	Not Detected	ug/kg (dw)		1100	PS	7/1/2004	
Hexadecanoic acid			EPA 8270C	1300 TIE	ug/kg (dw)			PS	7/1/2004	
Octadecanoic acid			EPA 8270C	4300 TIE	ug/kg (dw)			PS	7/1/2004	
Dibenzylbutyrolactone			EPA 8270C	1300 TIE	ug/kg (dw)			PS	7/1/2004	
Total Hydrocarbons			EPA 8270C	4400 TIE	ug/kg (dw)			PS	7/1/2004	
QC Batch 68952										
Semi-Volatile TCLP Warranted?			EPA 1311	No	Yes/No		REG.LEV.	PS	7/2/2004	
QC Batch 68954										
Volatile TCLP Warranted?			EPA 1311	No	Yes/No		REG.LEV.	KDD	7/1/2004	
ICP Metals HW in TCLP Extracts QC Batch 69245										
Silver	01077		EPA 6010B	Not Detected	mg/L		0.01	LA	7/14/2004	5
Arsenic	01002		EPA 6010B	Not Detected	mg/L		0.08	LA	7/14/2004	5
Barium	01007		EPA 6010B	0.24	mg/L		0.01	LA	7/14/2004	100
Cadmium	01027		EPA 6010B	Not Detected	mg/L		0.01	LA	7/14/2004	1
Chromium	01034		EPA 6010B	Not Detected	mg/L		0.02	LA	7/14/2004	5

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ug/g: micrograms/gram
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[illegible]: parts per billion
[illegible]g/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

Laboratory Contacts:

Inorganics:	Pat Sammons	404-206-5239
Metals:	Mark Tolbert	404-206-5240
Organics:	Danny Reed	404-206-5252
GC Mass Spec:	Steve Bryan	404-206-5260
Microbiology:	Viola Reynolds	404-206-5210

ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	QUALIFIER UNITS	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
Le[illegible]	01051		EPA 6010B	Not Detected	mg/L	0.09	LA	7/14/2004	5
S[illegible]m	01147		EPA 6010B	Not Detected	mg/L	0.19	LA	7/14/2004	1
ICP Metals HW in Solids QC Batch 68919									
Silver	01078		EPA 6010B	Not Detected	mg/kg (dw)	10	LA	7/7/2004	
Arsenic	01003		EPA 6010B	12	mg/kg (dw)	8.0	LA	7/7/2004	
Barium	01008		EPA 6010B	44	mg/kg (dw)	1.0	LA	7/7/2004	
Cadmium	01028		EPA 6010B	1.0	mg/kg (dw)	1.0	LA	7/7/2004	
Chromium	01029		EPA 6010B	15	mg/kg (dw)	2.0	LA	7/7/2004	
Lead	01052		EPA 6010B	110	mg/kg (dw)	9.0	LA	7/7/2004	
Selenium	01148		EPA 6010B	Not Detected	mg/kg (dw)	19	LA	7/7/2004	
QC Batch 68953									
Metals TCLP Warranted?			EPA 1311	yes	Yes/No	REG.LEV. AGV		7/13/2004	

COMMENTS: $827CS- EPA 8270C- Sample had one internal standard compound, Perylene-d12 (41% response, limits 50-200%) with area response outside acceptable control limits. All associated compounds are flagged with a "J", for estimated values. LCS results were within acceptable control limits. 7-070204-274.

COMMENTS: ICPHS-6010B: ICP Metals - Reporting limits raised due to matrix interference.

COMMENTS: $R_ICPHS-6010B: ICP Metals - Matrix Spike had one analyte, Lead (146% recovery, limits 75-125%), with a percent recovery outside acceptable control limits due to high concentration of target analytes in sample. LCS results acceptable for all analytes. 2-070704-202

ug/L: micrograms/liter mg/L: milligrams/liter mg/kg: milligrams/kilogram ug/kg: micrograms/kilogram ug/g: micrograms/gram [illegible]n: parts per million [illegible]: parts per billion org/L: organisms/liter	<: less than MCL: Maximum Contaminant Level RL: Reporting Limit LSPC: result less than lower specification USPC: result greater than upper specification TIE: Tentatively Identified or Estimated VIOL: Violation (result exceeds MCL)	**Laboratory Contacts:** Inorganics: Pat Sammons 404-206-5239 Metals: Mark Tolbert 404-206-5240 Organics: Danny Reed 404-206-5252 GC Mass Spec: Steve Bryan 404-206-5260 Microbiology: Viola Reynolds 404-206-5210

HAZARDOUS WASTE MANAGEMENT BRANCH (HWMB)
REQUEST FOR LABORATORY ANALYSIS

Facility Name/Location: BCX Waycross Facility, Waycross Georgia

Sample Collected By/Phone: Valincia Darby, Freddie Dunn (404) 657-8831

Collection Date: 6/23/04 LAB No. ____

Date Submitted To Lab: 9774 6/24/04

HWMB LOG NUMBER: ____

File a separate Request Sheet for each sample point)

Analysis Needed By: Routine ✓ Other (specify) ____

Sample Description (check one)

Waste	____	Soil/Sediment	✓	Sludge	____
Ground Water	____	Surface Water	____	Drinking Water Well	____

Concentration of Organics Requested (estimated): High ___ Low ___ Other (e.g., rinse blank - specify) ____

Describe Sample Including Source and Known Properties (e.g. pH concentration):

Applicable Hazardous Waste Codes (if known) ____

Special Precautions:

Sample ID AE53883
Location: HWMB
Description: BCX WAYCROSS FACILITY /HW9774
Collector: DUNN/DARBY
Site:

ANALYSIS REQUIRED

(Note: Totals will always be run first. A TCLP will subsequently be run only if the total value indicates a positive TCLP could results)

1. TOTAL ORGANICS
   - Semi-Volatiles (Acid & Base\Neutral) ✓
   - Volatiles ✓
   - Pesticides ____
   - Herbicides ____
   - Organophosphorus Pesticides ____
   - PCB ____
   - BETX ____
   - Total Petroleum Hydrocarbon ____
   - Organics Special Requests: ____

2. TOTAL METALS
   - ICP Metals Scan (Ag,As,Ba,Cd,Cr,Ni,Pb,Se) ✓
   - Mercury ____
   - Metals Special Requests: ____

1 4 OZ. JARS
6 8 OZ. JARS
2 16 OZ. JARS
4 Encores

3. TCLP ORGANICS If warranted
   - Volatiles ✓
   - Semi-Volatiles (Acid & Base/Neutral) ✓
   - Pesticides ____
   - Herbicides ____
   - Additional Specific Organics for TCLP: ____

4. TCLP METALS ANALYSIS If warranted
   - TCLP Metals (Ag,As,Ba,Cd,Cr,Ni,Pb,Se) ✓
   - Mercury ✓
   - Additional Metals for TCLP: ____

5. ADDITIONAL ANALYSIS REQUESTED (see list on back): ____

Reviewed By: (HWMB): F. Dunn Date: 6/18/04 Reviewed By (EPD Lab): ____
Approved By:(HWMB): R. Bradley Date: 6/18/04 Date (EPD Lab): ____

TNB

Preservative Confirmed
Ph <2 ____ >12 ____
Temp 0.0

S:/rdrive/forms/Request for Lab Analysis.doc

GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

4:55 14th Street NW, Atlanta, GA 30318-7900
(404) 206-5269

LABORATORY REPORT

TO: Georgia Env Protection Divison Hazardous Waste Mgmt Branch 205 Butler St SE Suite 1154E Atlanta, GA 30334		Date Collected:	6/23/2004
		Time Collected:	14:05
		Sample Collector:	DUNN/DARBY
		Chlorination:	
		Sample Type:	
Sample ID:	AE53833	Received By:	TNB
Facility Name:	Bcx Waycross Facility /Hw9774	Date Received:	6/24/2004
Site ID:	HWMB	Time Received:	2:44 PM
Location ID:		Project:	HW
Location Descr:	HW9774 SPILL SITE	Reporting Date:	7/16/2004
		Received Temperature:	0.0 °C

ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	QUALIFIER	UNITS	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
8260B in Soil QC Batch 68932										
Dibromofluoromethane(Surrogate QC Std.)			EPA 8260B	45		ug/Kg	5.5	KDD	6/28/2004	*41 to 63.5*
1,2-Dichloroethane-d4(Surrogate QC Std.)			EPA 8260B	45		ug/Kg	5.5	KDD	6/28/2004	*36 to 62.5*
T[illegible]ne-d8(Surrogate QC Std.)			EPA 8260B	45		ug/Kg	5.5	KDD	6/28/2004	*34.5 to 56.5*
B[illegible]fluorobenzene(Surrogate QC Std.)			EPA 8260B	44		ug/Kg	5.5	KDD	6/28/2004	*35.5 to 58.5*
Di[illegible]orodifluoromethane	34668		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
Chloromethane	34418		EPA 8260B	Not Detected		ug/Kg	11	KDD	6/28/2004	
Vinyl chloride	39175		EPA 8260B	Not Detected		ug/Kg	2.2	KDD	6/28/2004	
Bromomethane	34413		EPA 8260B	Not Detected		ug/Kg	11	KDD	6/28/2004	
Chloroethane	34311		EPA 8260B	Not Detected		ug/Kg	11	KDD	6/28/2004	
Trichlorofluoromethane	34488		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
1,1-Dichloroethene	34501		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
Acetone	81552		EPA 8260B	Not Detected		ug/Kg	110	KDD	6/28/2004	
1,1,2-Trichlorotrifluoroethane	81611		EPA 8260B	Not Detected		ug/Kg	11	KDD	6/28/2004	
Iodomethane	77424		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
Carbon disulfide	77041		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
Methyl acetate	77032		EPA 8260B	Not Detected		ug/Kg	11	KDD	6/28/2004	
Methylene chloride	34423		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
trans-1,2-Dichloroethene	34546		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
Methyl tert-butyl ether	46491		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
1,1-Dichloroethane	34496		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
Vinyl acetate	77057		EPA 8260B	Not Detected		ug/Kg	55	KDD	6/28/2004	
2,2-Dichloropropane	77170		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
cis-1,2-Dichloroethene	77093		EPA 8260B	Not Detected		ug/Kg	5.5	KDD	6/28/2004	
2-Butanone	81595		EPA 8260B	Not Detected		ug/Kg	110	KDD	6/28/2004	

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Laboratory Contacts:

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Organics:	Danny Reed	404-206-5252
GC Mass Spec:	Steve Bryan	404-206-5260
Microbiology:	Viola Reynolds	404-206-5210

ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	UNITS	QUALIFIER	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
Bromochloromethane	77297		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Chloroform	32106		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,1,1-Trichloroethane	34506		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Cyclohexane	81570		EPA 8260B	Not Detected	ug/Kg		11	KDD	6/28/2004	
Carbon tetrachloride	32102		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,1-Dichloropropene	77168		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Benzene	34030		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,2-Dichloroethane	32103		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Trichloroethene	39180		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Methylcyclohexane			EPA 8260B	Not Detected	ug/Kg		11	KDD	6/28/2004	
1,2-Dichloropropane	34541		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Dibromomethane	77596		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Bromodichloromethane	32101		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
cis-1,3-Dichloropropene	34704		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
4-Methyl-2-pentanone	81596		EPA 8260B	Not Detected	ug/Kg		55	KDD	6/28/2004	
Toluene	34010		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
trans-1,3-Dichloropropene	34699		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,1,2-Trichloroethane	34511		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Tetrachloroethene	34475		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,3-Dichloropropane	77173		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
2-Hexanone	77103		EPA 8260B	Not Detected	ug/Kg		55	KDD	6/28/2004	
Dibromochloromethane	32105		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,2-Dibromoethane	77651		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Chlorobenzene	34301		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,1,1,2-Tetrachloroethane	77562		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Ethylbenzene	34371		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
p[illegible]lene	77135		EPA 8260B	Not Detected	ug/Kg		11	KDD	6/28/2004	
o-Xylene	77135		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Styrene	77128		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Bromoform	32104		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Isopropylbenzene	77223		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Bromobenzene	81555		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,1,2,2-Tetrachloroethane	34516		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,2,3-Trichloropropane	77443		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
N-Propylbenzene	77224		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
2-Chlorotoluene	77275		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
4-Chlorotoluene	77277		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,3,5-Trimethylbenzene	77226		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
tert-Butylbenzene	77353		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,2,4-Trimethylbenzene	77222		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
sec-Butylbenzene	77350		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,3-Dichlorobenzene	34566		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
p-Isopropyltoluene	77356		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,4-Dichlorobenzene	34571		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,2-Dichlorobenzene	34536		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
n-Butylbenzene	77342		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,2-Dibromo-3-chloropropane			EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	

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ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	UNITS	QUALIFIER	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
1,2,4-Trichlorobenzene	34551		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Hexachlorobutadiene	38702		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
Naphthalene	34696		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
1,2,3-Trichlorobenzene	77613		EPA 8260B	Not Detected	ug/Kg		5.5	KDD	6/28/2004	
8270 Semi-Vol in SOIL QC Batch 68933										
2-Fluorophenol(Surrogate QC Std.)			EPA 8270C	85	ug/kg (dw)		0.00	PS	7/1/2004	*30 to 108*
Phenol-d5(Surrogate QC Std.)			EPA 8270C	91	ug/kg (dw)		0.00	PS	7/1/2004	*43 to 111*
Nitrobenzene-d5(Surrogate QC Std.)			EPA 8270C	85	ug/kg (dw)		0.00	PS	7/1/2004	*54 to 112*
2-Fluorobiphenyl(Surrogate QC Std.)			EPA 8270C	91	ug/kg (dw)		0.00	PS	7/1/2004	*57 to 120*
2,4,6-Tribromophenol(Surrogate QC Std.)			EPA 8270C	110	ug/kg (dw)		0.00	PS	7/1/2004	*20 to 130*
Terphenyl-d14(Surrogate QC Std.)			EPA 8270C	120	ug/kg (dw)		0.00	PS	7/1/2004	*64 to 123*
Pyridine	77045		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
n-Nitrosodimethylamine	34438		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2-Picoline	77088		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Methylmethanesulfonate	73595		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Ethylmethanesulfonate	73571		EPA 8270C	Not Detected	ug/kg (dw)		2600	PS	7/1/2004	
Aniline	77089		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Benzaldehyde			EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Phenol	34694		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
bis(2-Chloroethyl)ether	34273		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2-Chlorophenol	34586		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1,3-Dichlorobenzene	34566		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1,4-Dichlorobenzene	34571		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Benzyl Alcohol	77147		EPA 8270C	Not Detected	ug/kg (dw)		2600	PS	7/1/2004	
1,2-Dichlorobenzene	34536		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2-Methylphenol			EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Bis(2-Chloroisopropyl)ether	34283		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Acetophenone	81553		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
4-Methylphenol			EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
N-Nitroso-di-n-propylamine	34428		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Hexachloroethane	34396		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Nitrobenzene	34447		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
N-Nitrosopiperidine	73619		EPA 8270C	Not Detected	ug/kg (dw)		2600	PS	7/1/2004	
Isophorone	34408		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2-Nitrophenol	34591		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2,4-Dimethylphenol	34606		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Bis(2-Chloroethoxy)methane	34278		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Benzoic Acid	77247		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
2,4-Dichlorophenol	34601		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1,2,4-Trichlorobenzene	34551		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
aa-Dimethyl-Phenethylamine	73564		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Naphthalene	34696		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
4-Chloroaniline	73529		EPA 8270C	Not Detected	ug/kg (dw)		2600	PS	7/1/2004	
2,6-Dichlorophenol	77541		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Hexachlorobutadiene	38702		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Caprolactam			EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
N-Nitroso-di-n-butylamine	73609		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	

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ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	UNITS	QUALIFIER	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
4-C[illegible]ro-3-Methylphenol	34452		EPA 8270C	Not Detected	ug/kg (dw)		2600	PS	7/1/2004	
[illegible]ylnaphthalene	77416		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1,2,4,5-Tetrachlorobenzene	77734		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Hexachlorocyclopentadiene	34386		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2,4,6-Trichlorophenol	34621		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2,4,5-Trichlorophenol	77687		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1,1'-Biphenyl			EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2-Chloronaphthalene	34581		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1-Chloronaphthalene			EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2-Nitroaniline	78142		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
Dimethylphthalate	34341		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Acenaphthylene	34200		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2,6-Dinitrotoluene	34626		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
3-Nitroaniline	78300		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
Acenaphthene	34205		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2,4-Dinitrophenol	34616		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
4-Nitrophenol	34646		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
Dibenzofuran	81302		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Pentachlorobenzene	77793		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2,4-Dinitrotoluene	34611		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1-Naphthylamine	73600		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2-Naphthylamine	73601		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
2,3,4,6-Tetrachlorophenol			EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Diethylphthalate	34336		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Fluorene	34381		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
4-Chlorophenyl-Phenylether	34641		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
4[illegible]aniline	30342		EPA 8270C	Not Detected	ug/kg (dw)		2600	PS	7/1/2004	
D[illegible]ylamine	77579		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
4,6-Dinitro-2-Methylphenol	34657		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
N-Nitrosodiphenylamine	34433		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
1,2-Diphenylhydrazine	34346		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
4-Bromophenyl-phenylether	34636		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Phenacetin	62018		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Hexachlorobenzene	39700		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Atrazine	39033		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
4-Aminobiphenyl	77581		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Pentachlorophenol	39032		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
Pronamide	39080		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Pentachloronitrobenzene	81316		EPA 8270C	Not Detected	ug/kg (dw)		2600	PS	7/1/2004	
Phenanthrene	34461		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Anthracene	34220		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Carbazole	82618		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Di-n-Butylphthalate	39110		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Fluoranthene	34376		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Benzidine	39120		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Pyrene	34469		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
p-Dimethylaminoazobenzene	73558		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	

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[illegible] parts per billion
[illegible]/L: organisms/liter

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ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	UNITS	QUALIFIER	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
B[illegible]nzylphthalate	34292		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
B[illegible]a]anthracene	34526		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
3,3'-Dichlorobenzidine	34631		EPA 8270C	Not Detected	ug/kg (dw)	J	2600	PS	7/1/2004	
Chyrsene	34320		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Bis(2-Ethylhexyl)phthalate	39100		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Di-n-octylphthalate	34596		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Benzo[b]fluoranthene	34230		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Benzo[k]fluoranthene	34242		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
7,12-Dimethylbenz(a)anthracen	73559		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Benzo[a]pyrene	34247		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
3-Methylcholanthrene	73591		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Dibenz(a,j)acridine			EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Indeno[1,2,3-cd]pyrene	34403		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Dibenz[a,h]anthracene	34556		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Benzo[g,h,i]perylene	34621		EPA 8270C	Not Detected	ug/kg (dw)	J	1300	PS	7/1/2004	
Alpha-BHC	39337		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Gamma-BHC	39340		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Beta-BHC	39338		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Delta-BHC	34259		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Heptachlor	39410		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Aldrin	39330		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Heptachlor Epoxide	39420		EPA 8270C	Not Detected	ug/kg (dw)		3300	PS	7/1/2004	
Endosulfan 1	34361		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
Dieldrin	39380		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
p,p'-DDE	39320		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
En[illegible]rin	39390		EPA 8270C	Not Detected	ug/kg (dw)		3200	PS	7/1/2004	
E[illegible]lfan 2	34356		EPA 8270C	Not Detected	ug/kg (dw)		6600	PS	7/1/2004	
p,[illegible]DD	39310		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Endrin Aldehyde	34366		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Endosulfan Sulfate	34351		EPA 8270C	Not Detected	ug/kg (dw)		3300	PS	7/1/2004	
p,p'-DDT	39300		EPA 8270C	Not Detected	ug/kg (dw)		1300	PS	7/1/2004	
Hexadecanoic acid			EPA 8270C	2600 TIE	ug/kg (dw)			PS	7/1/2004	
Complex alcohols			EPA 8270C	25000 TIE	ug/kg (dw)			PS	7/1/2004	
(Z,Z)-9,12-Octadecadienoic acid			EPA 8270C	1600 TIE	ug/kg (dw)			PS	7/1/2004	
Total Hydrocarbons			EPA 8270C	6600 TIE	ug/kg (dw)			PS	7/1/2004	
Octadecanoic acid			EPA 8270C	1500 TIE	ug/kg (dw)			PS	7/1/2004	
QC Batch 68952										
Semi-Volatile TCLP Warranted?			EPA 1311	No	Yes/No		REG.LEV.	PS	7/2/2004	
QC Batch 68954										
Volatile TCLP Warranted?			EPA 1311	No	Yes/No		REG.LEV.	KDD	7/1/2004	
ICP Metals HW in Solids QC Batch 68919										
Silver	01078		EPA 6010B	Not Detected	mg/kg (dw)		10	LA	7/7/2004	
Arsenic	01003		EPA 6010B	Not Detected	mg/kg (dw)		80	LA	7/7/2004	
Barium	01008		EPA 6010B	13	mg/kg (dw)		10	LA	7/7/2004	
Cadmium	01028		EPA 6010B	Not Detected	mg/kg (dw)		10	LA	7/7/2004	
Chromium	01029		EPA 6010B	Not Detected	mg/kg (dw)		20	LA	7/7/2004	
Lead	01052		EPA 6010B	Not Detected	mg/kg (dw)		90	LA	7/7/2004	

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ANALYTE	PARAMETER CODE	NOTE	EPA METHOD	RESULT	QUALIFIER UNITS	RL	ANALYST	ANALYSIS DATE	MCL or *QC Range*
S ium	01148		EPA 6010B	Not Detected	mg/kg (dw)	190	LA	7/7/2004	
atch 68953									
Metals TCLP Warranted?			EPA 1311	no	Yes/No		REG.LEV.AGV	7/13/2004	

COMMENTS: $827CS- EPA 8270C- Sample had two internal standard compounds, Chrysene-d12 (48% response, limits 50-200%) and Perylene-d12 (32% response, limits 50-200%) with area responses outside acceptable control limits. All associated compounds are flagged with a "J", for estimated values. LCS results were within acceptable control limits. 7-070204-274.

COMMENTS: ICPHS-6010B: ICP Metals - Reporting limits raised due to matrix interference.

COMMENTS:

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Reference 19

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, SE, Suite 1066 East, Atlanta, Georgia 30334-9000
Lonice C. Barrett, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
Office: 404/657-8831 FAX: 404/463-6676

July 20, 2004

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Phil DeMarco
Plant Manager
BCX, Incorporated
901 Francis Street
Waycross, Georgia 31501

SUBJECT: PROPOSED CONSENT ORDER
BCX, Incorporated
Waycross, Ware County
EPA Identification Number: GAR000030007

Dear Mr. DeMarco:

Please find enclosed a proposed Consent Order between the Georgia Environmental Protection Division ("EPD") and BCX, Incorporated concerning violations of Georgia's Rules of Hazardous Waste Management and Solid Waste Management. The proposed Order is based upon violations observed during inspections conducted at the facility by representatives of the Division on April 23, and June 23, 2004.

The proposed Consent Order offers an amicable disposition of EPD's allegations by complying with certain conditions and paying a monetary settlement, as specified in the proposed Order. We hope to resolve this matter by **August 20, 2004.** If you agree, please sign and date the proposed Consent Order **under the company's name** and return it to the following address by **August 20, 2004:**

Mr. Freddie L. Dunn, Jr.
2 Martin Luther King Jr. Drive, S.E., Suite 1066 East
Atlanta, Georgia 30334-9000

If you have any questions, please contact Mr. Dunn at (404) 657-8831 before **August 20, 2004**. You will be provided a copy of the Consent Order after the Director signs it. Thank you in advance for your cooperation in this matter.

Sincerely,

Jennifer R. Kaduck

Jennifer R. Kaduck
Chief
Hazardous Waste Management Branch

JRK/VRD/jkl
Enclosures: (2)
c: Renée Hudson Goodley
File: BCX, Incorporated, Waycross
S:RDRIVE\Darby\fy04\BCX CO Letter.coc

Reference 20

LEBOEUF, LAMB, GREENE & MACRAE
L.L.P.
A LIMITED LIABILITY PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

NEW YORK
WASHINGTON, D.C.
ALBANY
BOSTON
HARRISBURG
HARTFORD
HOUSTON
JACKSONVILLE
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NEWARK
PITTSBURGH
SALT LAKE CITY
SAN FRANCISCO

50 NORTH LAURA STREET
SUITE 2800
JACKSONVILLE, FL 32202-3650
(904) 354-8000
FACSIMILE: (904) 353-1673

E-MAIL ADDRESS: DRICHARD@LLGM.COM
WRITER'S DIRECT DIAL: (904) 630-5342
WRITER'S DIRECT FACSIMILE: (904) 365-1560

LONDON
(A LONDON-BASED MULTINATIONAL PARTNERSHIP)
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JOHANNESBURG
(PTY) LTD.
MOSCOW
RIYADH
(AFFILIATED OFFICE)
BISHKEK
ALMATY
BEIJING

August 19, 2004

Mr. Freddie L. Dunn, Jr.
Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1066 East
Atlanta, Georgia 30334-9000

Re: Proposed Consent Order
BCX, Incorporated
Waycross, Ware County
EPA Identification Number: GAR0000300007

Dear Mr. Dunn:

We are very recently in receipt of your letter and proposed Consent Order related to the BCX facility in Waycross, Georgia. BCX has not yet located appropriate local counsel to assist them. However, since we represent them with regard to federal EPA issues, they have asked that we request additional information regarding the calculation of the proposed settlement figure. Please provide your rationale and any matrix information which you have relied upon.

I am advised that the owners of the subject facility are working hard to address your concerns and look forward to resolving all outstanding issues as soon as possible. Part of that effort will include discussions with you. Please forward the requested information for review prior to BCX's further response.

RECEIVED
AUG 23 2004
GENERATOR COMPLIANCE PROGRAM
HAZARDOUS WASTE MANAGEMENT BRANCH

Sincerely,

Daniel D. Richardson

DDR/dw

cc: BCX Inc.

RECORD OF TELEPHONE CONVERSATION
GENERATOR COMPLIANCE PROGRAM

DATE: October 26, 2004
TIME: 4:08 pm

FILE: BCX Waycross
EPA ID#: GAR000030007

SPOKE WITH: Mr. Daniel D. Richardson
TITLE: Attorney with Lewis, Longman and Walker
ADDRESS: 9428 Baymeadows Road
CITY: Jacksonville
STATE/ZIP: Florida - 32256
TELEPHONE NUMBER: (904) 737-2020

SUBJECT: BCX Consent Order

SUMMARY OF CALL: I called Mr. Richardson in response to his letter dated August 19, 2004. In this letter he was asking how EPD determined the $50,000.00 penalty amount. I explained to him the two violations were both maximum for deviation and potential for harm on the EPA matrix. Mr. Richardson no longer works for LeBoeuf, Lamb, Greene & MacRae. He now works for Lewis, Longman and Walker. I told him that we have not yet received the laboratory data from EPA. I indicated that once we get the data we will have an idea what is being stored at the site.

ACTION REQUIRED: Get another response from the company. Wait on laboratory results from EPA.

SIGNATURE: Freddie L. Dunn, Jr.

FOLLOW-UP RESPONSES/ADDITIONAL COMMENTS:

On November 3, 2004, I called Mr. Richardson back and asked that he submit some kind of proposal with his new letterhead and to get the discussion about the facility going and how they plan to resolve the issues at the site. I told him we just have to wait on laboratory date before we can conclude what is being stored on-site.

SIGNATURE:

File: S:\Rdrive\Freddie\Record of Telephone Conversation 10/26/2004.doc

LEWIS, LONGMAN & WALKER, P.A.
ATTORNEYS AT LAW

HELPING SHAPE FLORIDA'S FUTURE®

www.llw-law.com

REPLY TO JACKSONVILLE

November 10, 2004

RECEIVED
NOV 15 2004
GENERATOR COMPLIANCE PROGRAM
HAZARDOUS WASTE MANAGEMENT BRANCH

Mr. Freddie L. Dunn, Jr.
Unit Coordinator
Hazardous Waste Compliance Unit
Georgia Department of Natural Resources
2 Martin Luther King Jr. Drive, SE
Suite 1066
Atlanta, Georgia 30334-9000

Re: BCX, Inc., Waycross, Georgia

Dear Mr. Dunn:

BCX, Inc. has received your proposed Consent Order with regard to its facility in Waycross, Georgia. We have spoken to you about this matter several times and appreciate your indulgence as we attempt to work out a viable plan of action. We are currently waiting on the results of the tank sampling so that we can estimate the cost of removing the material currently on site. Because the facility has no current income, any resources for effectuating an overall resolution must be very carefully managed.

As you know, the BCX facility is in good condition and represents a sizable investment. It appears that any plan must result in bringing the facility back on line. It is possible that additional pretreatment equipment may be necessary in order to meet the concerns of the POTW and to further assure that the POTW is successful in meeting its discharge requirements. As a general concept, we would like you to consider a term of the Consent Order which would give BCX, Inc. credit for dollars spent on new pretreatment equipment against its penalty to your Department.

There is one important assumption in the Consent Order which is in error. In paragraph D it states that the City of Waycross terminated BCX's connection to the sewer system. That is not really the case. BCX felt that during its dialogue with the POTW, it

Bradenton
1001 3rd Avenue West
Suite 670
Bradenton, FL 34205
(941) 708-4040
Fax: (941) 708-4024

Jacksonville
9428 Baymeadows Road
Suite 625
Jacksonville, FL 32256
(904) 737-2020
Fax: (904) 737-3221

Tallahassee
Post Office Box 10788 (32302)
125 South Gadsden Street
Suite 300
Tallahassee, FL 32301
(850) 222-5702
Fax: (850) 224-9242

West Palm Beach
1700 Palm Beach Lakes Blvd.
Suite 1000
West Palm Beach, FL 33401
(561) 640-0820
Fax: (561) 640-8202

did not want to be accused of discharging and causing an upset to the POTW. Therefore, BCX unilaterally halted its discharges. The POTW did not terminate BCX's right to discharge under its pretreatment permit. In fact, the POTW has never done so. We would suggest that this fact impacts the clarity of the alleged violations in the Consent Order. We would suggest the facility continues to be exempt from permitting under the Solid Waste Management Act because, in the final analysis, it still has the permitted right to discharge to the POTW. We would ask you to ponder that concept as we move forward with discussions.

As I have indicated to you in our telephone conferences, my clients are attempting to develop a business plan to resume full operations in Waycross. This is a complex task. A bank, potential investors, the City and your Department are aii parts to the puzzle. There is no lack of motivation to find a solution. Immediately after we receive the characterization of the material in the tanks, my clients will confer with consultants to review the possibilities. We look forward to working closely with you to resolve your concerns as part of the overall plan of action. Let's plan to talk again about two weeks after the analytical is received.

Sincerely,

Daniel D. Richardson

DDR:lt

Reference 21

EPA Sampling Report at BCX-Waycross Facility (See Reference 7).

Reference 22

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 0 2 2004

RECEIVED
DEC 6 2004
GENERATOR COMPLIANCE PROGRAM
HAZARDOUS WASTE MANAGEMENT BRANCH

Mr. Mark Smith, Chief
Hazardous Waste Management Branch
Environmental Protection Division
Department of Natural Resources
205 Butler Street
Suite 1154, East Tower
Atlanta, GA 30334

SUBJ: Seven Out LLC Site, Waycross, Georgia

Dear Mr. Smith:

The U.S. Environmental Protection Agency's Emergency Response and Removal Branch (ERRB) conducted a site investigation at the above referenced site for potential removal action eligibility under the National Contingency Plan (NCP). The site investigation was conducted at the request of the State of Georgia.

The Seven Out Site is located in Waycross, Ware County, Georgia. The facility operated as an industrial wastewater treatment facility for approximately two years. The Site has 41 storage/treatment tanks with a combined capacity of approximately 450,000 gallons. After treatment, the wastewater was discharged to an on-site City of Waycross publicly owned treatment works (POTW) hook-up. Due to the failure to meet discharge limits throughout its operation, the facility received eight enforcement letters from the City of Waycross. On March 1, 2004, the City of Waycross disconnected the facility's POTW connection.

On August 23, 2004, On-Scene Coordination Terry Stilman conducted a removal assessment at the Site. Almost all of the tanks were found to be full, including 4 temporary 20,000 gallon tanks. Thirty-three of the facility's tanks were sampled for fixed lab analysis. Several soil samples were also taken from stained areas. Analytical results were found as high as 270 mg/L for acetone and 1 mg/L for benzene in the tanks, and 151 mg/kg for arsenic in the soils.

While this Site could be considered a high priority for removal eligibility, the State of Georgia is presently trying to resolve all of the issues related to the contents of the tanks and the future operation of the facility. A final determination by EPA of removal eligibility will therefore await the results of the State of Georgia's negotiations with the facility owner. Should the State of Georgia decide to refer this Site to EPA, a final determination of removal eligibility will be made by the OSC assigned to the Site.

Should you have any questions concerning ERRB's determination, please contact Terry Stilman, OSC, at (404) 562-8748, or Matt Taylor, Chief of the Removal Operations Section, at (404) 562-8759.

Sincerely,

A. Shane Hitchcock

A. Shane Hitchcock, Chief
Emergency Response & Removal Branch

Attachment

cc: Fred Dunn, GA-EPD
Stacey Haire, EPA-EAD
Mike Norman, EPA-Site Evaluation Section

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, SE, Suite 1066 East, Atlanta, Georgia 30334-9000

Noel Holcomb, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
Office: 404/657-8831 FAX: 404-463-6676

January 21, 2005

Mr. Shane Hitchcock
Emergency Response and Removal Branch
U. S. EPA, Region IV
61 Forsyth Street, SW, 11th Floor
Atlanta, Georgia 30303

SUBJECT: BCX Waycross Facility Referral
901 Francis Street
Waycross, Ware County
EPA Identification Number: GAR000030007

Dear Mr. Hitchcock:

The Georgia Environmental Protection Division (EPD) requests EPA's assistance with the remediation of the BCX Waycross Facility in Ware County. This Waycross facility notified EPD as a used oil processor, but operated a wastewater treatment plant that failed to meet the discharge limits for the City of Waycross' Publicly Owned Treatment Works (POTW). On March 1, 2004, the City of Waycross disconnected the facility's connection to the POTW, and the facility has not been in operation since that time. The facility has been storing their acids and bases used for treating wastewater along with their processed and unprocessed wastewaters in storage and process tanks on-site. When the facility discontinued processing wastewaters, it ended up with an overflow of incoming wastewater, which had to be stored in four rented portable/temporary tanks that were placed on the adjoining property owned by CSX. As a result of storing hazardous waste and unidentified wastewaters, the facility has been out of compliance since March of 2004. The owner/operators were sent a proposed Consent Order on July 20, 2004, but have not yet entered into a Consent Order agreement with the EPD.

EPD requested your assistance to sample the waste in tanks and any suspected contaminated soil at the site during the summer. On August 23 to 26, 2004, your contractor, TetraTech, sampled 41 storage and process tanks and stained soil at the site and had them analyzed. The analysis indicated that some hazardous waste constituents were present in some of the tanks and in the soil at the site. The acid and alkaline materials stored in tanks at the site are corrosive (D002) and are considered to be a RCRA hazardous waste. EPD is concerned about this site because this facility has open tanks completely full of waste that may overflow at any time, there are floor drains and vats that are partially covered to prevent someone from falling into them, and there is limited security on-site with no limited access to the site. This site is a potential threat to the local community and the environment.

Our State Superfund Program does not have sufficient money at this time to remove the waste or provide security for this site due to State budget cuts and limited staff resources. Now that the wastes at the site have been characterized, we believe that all of the wastes at the site need to be removed as soon as possible and security provided for this site.

Since EPA is currently working to remediate similar problems found at the corporate office in Jacksonville, Florida, and has been working with BCX's legal and corporate personnel regarding similar environmental issues as determined at the Waycross site, EPA's Emergency Response and Removal Branch is in a better position to quickly resolve the problems at this site.

Thank you in advance for your cooperation in this matter. If you need any additional information, please have your staff contact Mr. Freddie L. Dunn, Jr. or Ms. Renée Hudson Goodley, Manager of the Generator Compliance Program at (404) 657-8831.

Sincerely,

Mark Smith

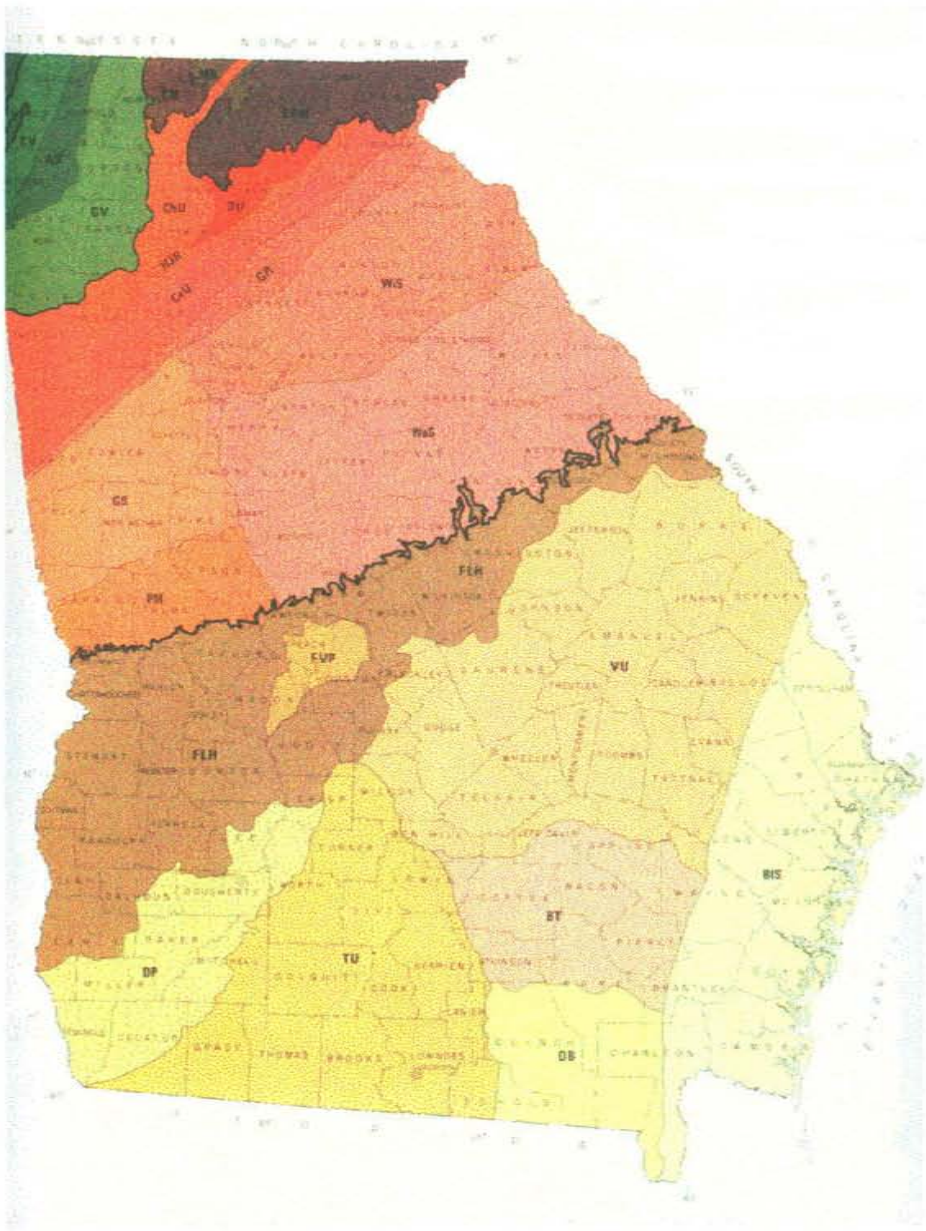
Mark Smith
Chief
Hazardous Waste Management Branch

MS/FLD/fld

File: BCX Waycross Facility (Seven Out LLC), Waycross
EPA Correspondence - FY2005
Facility Referrals – FY2005

S:\rdrive\Freddie\BCX Seven Out Waycross ERRB Letter.doc

Reference 23



PHYSIOGRAPHIC MAP OF GEORGIA

by

William Z. Clark, Jr. and Arnold C. Zisa

DEPARTMENT OF NATURAL RESOURCES
Joe D. Tanner, Commissioner

THE GEOLOGIC AND WATER RESOURCES DIVISION
Sam M. Pickering, State Geologist and Division Director

Atlanta
1976

BT <u>Bacon Terraces District</u> - Several moderately dissected terraces, generally parallel to the present coastline, are detectable on topographic maps of the Bacon Terraces District. However, they are very difficult to observe on the ground because the east facing scarps are very subtle. The terrace levels occur at elevations of 330-310 feet, 295-275 feet, 265-255 feet, 240 feet, 230 feet, 215-190 feet, and 180-160 feet. This district, on the north, west, and south, corresponds to the Satilla River drainage basin with its boundaries on the basin divide. The eastern boundary is the western base of Trail Ridge at approximately the 150 foot elevation. The southeast-trending, very extended, dendritic drainage pattern has formed on Upper Tertiary sediments. This drainage network has produced long, narrow interfluves with gently rounded to flat summits that rise gradually 50 to 100 feet above the narrow, marshy floodplains.

OB <u>Okefenokee Basin District</u> - Low relief, decreasing to the southeast, and numerous swamps are characteristic of the Okefenokee Basin District. Relief varies from approximately 50 feet to less than 5 feet. Elevations in the district range from 240 feet in the northwest on Pliocene-Pleistocene deposits to 75 feet in the southeast on Pleistocene deposits. The swamps range in size from a few hundred square feet to the 660 square miles of the Okefenokee Swamp. The northwestern portion of the Okefenokee Swamp, like the northern and western portions of the district, is drained by the southeast-flowing tributaries of the southwest-flowing Suwannee River. The southeastern portion of the swamp is drained by the south-flowing St. Marys River. At the extreme southern end of the district the St. Marys River turns east and flows through a gap in Trail Ridge. The northern and western boundaries of the district coincide with the northern and western drainage divides of the Suwannee River. The eastern boundary is the western base of Trail Ridge.

<u>Barrier Island Sequence District</u>

Reference 24

UNITED STATES DEPARTMENT OF THE INTERIOR
Harold L. Ickes, Secretary

GEOLOGICAL SURVEY
W. E. Wrather, Director

Bulletin 941

GEOLOGY OF THE COASTAL PLAIN OF GEORGIA

BY

C. WYTHE COOKE

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1943

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.
Price $1.25

Georgia were formed during the glacial stages, when the climate presumably was somewhat cooler than now, and that they are not now increasing. Proof of this supposition is lacking, but peat now below tide level in Blackwater River in western Florida contains fresh-water microscopic plants (diatoms) like those of much more northern latitudes.[86] Search should be made for diatoms in the peat deposits of Georgia.

BRANDYWINE FORMATION

GENERAL FEATURES

Name.—The Brandywine formation was named in 1915[87] from a place in Prince Georges County, Md. It was later restricted[88] to the deposits that accumulated in the sea and estuaries at a stage of sea level about 270 feet higher than the present. The formation in Georgia has never been formally described, but the older name Brandywine was substituted in 1931[89] for the name Hazelhurst terrace, which was described in 1925.[90]

Distribution.—The Brandywine sea probably extended across Georgia from Screven County to Thomas County, but much of its deposits have been removed by erosion. Recognition of them is made difficult by the lack of topographic maps except in the area east of longitude 82°, where the Brandywine formation is thoroughly dissected. The generalized boundaries shown on the geologic map (pl. 1) will be greatly modified by detailed mapping.

Thickness, lithologic character, and stratigraphic relations.—The Brandywine formation probably does not much exceed 50 feet in thickness. It consists chiefly of sand and gravel resembling the coarser unconsolidated parts of the Hawthorn formation, from which much of it appears to have been derived. No fossils have been found in it. It lies unconformably on the Hawthorn and possibly other formations. Any formations that may overlie it are presumably also unconformable, for the sea probably withdrew beyond the present seacoast at the end of Brandywine time.

Economic significance.—Some of the sand and gravel deposits in the Brandywine formation may be of value for structural work or as road metal.

[86] Hanna, G. D., Diatoms of the Florida peat deposits: Florida Geol. Survey, 23d–24th Ann. Repts., pp. 68–96, pls. 1–11, 1933.
[87] Clark, W. B., The Brandywine formation of the Middle Atlantic Coastal Plain: Am. Jour. Sci., 4th ser., vol. 40, pp. 499, 505, 1915.
[88] Cooke, C. W., Seven coastal terraces in the Southeastern States: Washington Acad. Sci. Jour., vol. 21, p. 506, 1931.
[89] Idem, p. 506.
[90] Cooke, C. W., Physical geography of Georgia; the Coastal Plain: Georgia Geol. Survey Bull. 42, p. 29, 1925.

COHARIE FORMATION

GENERAL FEATURES

Name.—The Coharie formation was named in 1912 by Stephenson[91] from Great Coharie Creek in Sampson County, N. C. Cooke[92] more precisely defined it by reference to a shore line about 215 feet above sea level. The remnants of the original surface in Georgia were called the "Claxton terrace"[93] before their identity with the Coharie terrace was established.

Distribution.—Much more of the Coharie than of the Brandywine has been preserved, especially in the southern part of Georgia, where a broad stretch about 50 miles long has been cut through by only a few streams. Farther north the areas are smaller. The boundaries of the formation shown on the geologic map (pl. 1) are merely provisional because most of the Coharie areas are not included in topographic maps.

Thickness and lithologic character.—The Coharie formation consists chiefly of sand, some of which is as coarse as rice. Angular pebbles apparently derived from the Hawthorn occur in it at some places, and it contains also smooth flat beach pebbles of transparent quartz. Its thickness is doubtless variable, but probably does not much exceed 50 feet. No fossils have been found in it.

Stratigraphic relations.—If the Coharie anywhere lies on the Brandywine formation, the relations are probably unconformable, for the sea presumably retreated beyond the present coast line during the interval between Brandywine and Coharie time. At most places it lies unconformably on the Hawthorn formation. The inconspicuousness of the scarp separating the Coharie terrace from the next lower Sunderland terrace and the apparent straightness of the Sunderland shore line suggest that the Coharie was immediately succeeded by the Sunderland without an intermediate retreat of the sea beyond the Sunderland shore.

Economic significance.—Sand and gravel are the only deposits in the Coharie formation that are likely to be of commercial value.

SUNDERLAND FORMATION

GENERAL FEATURES

Name.—The Sunderland formation and the Sunderland terrace correspond approximately to the Okefenokee formation and the

[91] Stephenson, L. W., The Coastal Plain of North Carolina; the Quarternary formations: North Carolina Geol. Survey, vol. 3, p. 273, 1912.
[92] Cooke, C. W., Correlation of coastal terraces: Jour. Geology, vol. 38, p. 582, 1930; Seven coastal terraces in the Southeastern States: Washington Acad. Sci. Jour., vol. 21, p. 506, 1931.
[93] Cooke, C. W., Physical geography of Georgia; the Coastal Plain: Georgia Geol. Survey Bull. 42, p. 29, 1925.

Okefenokee terrace of previous reports on Georgia.[94] The name Sunderland, proposed by Shattuck [95] for deposits in Maryland bounded by a shore line 170 feet above sea level, is the older.

Distribution.—The Sunderland formation underlies a great triangular area in the southeastern part of the State, including Okefenokee Swamp and smaller areas farther north, which were once continuous with the main area but have been separated from it by erosion. The eastern boundary of the main area is marked by Trail Ridge, an old sand spit and bar that extended northward in the Sunderland sea from an island in Clay County, Fla., to the present course of Satilla River. This ridge dams drainage from the west and is responsible for the existence of Okefenokee Swamp.

Thickness.—The Sunderland formation is thickest in Trail Ridge, which rises 60 feet above Okefenokee Swamp west of St. George, where it appears to have formed a low island. Elsewhere the ridge ranges from 20 to 30 feet in height and accumulated under water. The maximum thickness of the formation, including the Trail Ridge bar, is probably not more than 100 feet. Generally the formation is much thinner. Near Fargo it is so thin that the shallow valley of Suwannee River cuts through it into the Hawthorn formation.

Lithologic character and stratigraphic relations.—The Sunderland formation consists chiefly of fine white or light-gray sand. The lower part of the sand may be of Coharie age, but if so, it probably cannot be distinguished from the Sunderland formation, with which it presumably is conformable. In Okefenokee Swamp and other swamps the Sunderland is overlain by peat and by boggy material that has accumulated since the emergence that ended Sunderland time. During the epoch of low sea level that followed Sunderland time, erosion probably removed most of the deposits of Sunderland age from areas east of its present belt of outcrop. If any remain, they are not conformable with the younger terrace deposits that cover them.

Economic significance.—The fine sand of the Sunderland formation may be of commercial value. The peat deposits that overlie it in the Okefenokee Swamp and elsewhere do not properly form part of the formation. They may ultimately be utilized. Some of the alluvial brick clays near the Fall Line along the larger rivers may represent estuarine or fluviatile parts of the Sunderland formation.

---

[94] Veatch, Otto, and Stephenson, L. W., Preliminary report on the geology of the Coastal Plain of Georgia: Georgia Geol. Survey Bull. 26, 1911. Cooke, C. W., Physical geography of Georgia; the Coastal Plain: Georgia Geol. Survey Bull. 42, 1925.

[95] Shattuck, G. B., The Pleistocene problem of the North Atlantic Coastal Plain: Johns Hopkins Univ. Circ. 20, p. 14, 1901; Am. Geologist, vol. 28, pp. 102–103, 1901.

WICOMICO FORMATION

GENERAL FEATURES

Name and distribution.—The Wicomico formation, named [96] from a river in Maryland, occurs in Georgia as patches bordering the east edge of the Sunderland formation. North of the Altamaha the west edge of the Wicomico is very sinuous, with reentrants penetrating into the areas of Sunderland; south of the Satilla it abuts against the foot of Trail Ridge and is straight. Its east edge is only slightly indented. The Wicomico formation appears to be absent from the area between Altamaha and Satilla Rivers.

Thickness and lithologic character.—Few details are available as to the thickness and composition of the Wicomico. The formation is probably very thin and presumably consists chiefly of sand, but finer sediments may have accumulated in the indentations along the coast. No fossils have been found in it.

Stratigraphic relations.—The Wicomico formation has been defined [97] as the marine and estuarine Pleistocene deposits that accumulated while the sea stood about 100 feet above its present level. This epoch has been tentatively identified as the early part of the Sangamon interglacial stage.[98] From the sinuosity of its shore line and from the occurrence of stumps of trees beneath it in North Carolina and in the District of Columbia, one can infer that the Wicomico formation was deposited unconformably on a land surface by an advancing sea. At the end of the Wicomico epoch, sea level fell about 30 feet and became stabilized at a height of about 70 feet above its present level during the Penholoway stage. The part of the sea bottom (Wicomico formation) exposed by this lowering of sea level has been above water and exposed to erosion ever since.

Economic significance.—The Wicomico formation may contain workable deposits of sand or gravel and probably brick clay.

PENHOLOWAY FORMATION

GENERAL FEATURES

Name.—The Penholoway terrace was named in 1925,[99] at which time an area extending from Hortense, Brantley County, northeastward to Penholoway Creek and Penholoway Swamp, in Wayne County, was designated as the type. The Penholoway formation was

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[96] Shattuck, G. B., op. cit. (Am. Geologist), p. 103.

[97] Cooke, C. W., Correlation of coastal terraces: Jour. Geology, vol. 38, p. 582, 1930; Geology of the Coastal Plain of South Carolina: U. S. Geol. Survey Bull. 867, p. 143, 1936.

[98] Cooke, C. W., Tentative ages of Pleistocene shore lines: Washington Acad. Sci. Jour., vol. 25, pp. 331–333, 1935.

[99] Cooke, C. W., Physical geography of Georgia; the Coastal Plain: Georgia Geol. Survey Bull. 42, p. 24, 1925.

Reference 25

GEORGIA WELLHEAD PROTECTION PLAN

for

CITY of WAYCROSS

WARE COUNTY

Permit #2990002

Expiration Date: June 15, 2001

Field Survey By:	***Sandra Jo Robertson***	***Date:***	***July 15, 1999***
Prepared By:	***Sandra Jo Robertson***	***Date:***	***July 27, 1999***
Checked By:		***Date:***	
Approved By:	Susan Grunwald	***Date:***	8/17/99
Distribution:	***2 GGS Files; 1 WRMB;***	***1 Local Government***	

SYSTEM INFORMATION

Water System:	Waycross Water System
County:	Ware
System ID No.:	2990002
Expiration Date:	June 15, 2001
Number of Wells:	3
System Type:	municipal
Population:	16,410
Class:	2
Region:	Southeast
Province:	Coastal Plain
Aquifer Type:	unconfined Coastal Plain (Wells #1, & #2) and confined Coastal Plain (Well #3)
Significant Recharge Area:[1]	no
Pollution Susceptibility:[2]	higher susceptibility
Supplier:	City of Waycross
Contact:	William Bland
Title:	Water Superintendent
Address:	P. O. Box 99 Waycross, Georgia 31506
Phone No.:	(912) 287-2900
Fax No.:	(912) 287-2990
WHPA Delineated:	July 15, 1999
PPSI Conducted:	July 15, 1999
Alternate Water Source:	The Waycross Water System consists of three wells. Should one well become inoperable, the other wells would serve the city's water needs until the well was again operational or a new water source found.

[1]Hydrologic Atlas 18, Most Significant Ground-Water Recharge Areas of Georgia, Georgia Department of Natural Resources, Atlanta, 1989.

[2]Hydrologic Atlas 20, Ground-Water Pollution Susceptibility Map of Georgia, Georgia Department of Natural Resources, Atlanta, 1992.

Part 1: DELINEATING THE WELLHEAD PROTECTION AREA

see attached map

Well #1

Location description:	Located at the city water plant on Alice Street. GPS reading taken at the wellhead.
Longitude:	82°21'26.069"W
Latitude:	31°12'42.441"N
Quadrangle:	Waycross East
Aquifer Type:	unconfined Coastal Plain*
Delineation Method:	volumetric flow equation
Pumping Rate:	1000 gpm (Water System Operator)
Cement Pad:	present
Well House:	not present
Fence:	present
Locked Gate:	present
Control Zone:	15 foot radius
Inner-Management Zone:	250 foot radius
Outer-Management Zone:	825 foot radius

Well #2

Location description:	Located within the city water plant building on Alice Street. GPS reading taken 8 feet west of wellhead.
Longitude:	82°21'28.142"W
Latitude:	31°12'44.568"N
Quadrangle:	Waycross East
Aquifer Type:	unconfined Coastal Plain*
Delineation Method:	fixed radius
Pumping Rate:	1700 gpm (Water System Operator)
Cement Pad:	present
Well House:	present / locked
Fence:	not present
Locked Gate:	not present
Control Zone:	15 foot radius
Inner-Management Zone:	250 foot radius
Outer-Management Zone:	1041 foot radius

*Wells #1 and #2 delineated as unconfined Coastal Plain (open hole) due to lack of specific well construction data.

Well #3

Location description:	Located at Legion Park on GA Route 122. GPS reading taken 5 feet north of the wellhead.
Longitude:	82°21'31.443"W
Latitude:	31°12'35.975"N
Quadrangle:	Waycross East
Aquifer Type:	confined Coastal Plain
Delineation Method:	fixed radius
Pumping Rate:	2850 gpm (Water System Operator)
Cement Pad:	present
Well House:	present / locked
Fence:	not present
Locked Gate:	not present
Control Zone:	15 foot radius
Management Zone:	100 foot radius

Part 2: POTENTIAL POLLUTION SOURCE (PPS) INVENTORY

(see APPENDIX A for reference of PPS Codes)

PPS#	PPS Code	Description
1.	O04	electrical transformers
2.	O07	utility poles
3.	O08	vehicle parking areas
4.	S05	sewer lines
5.	T01	access and secondary roads
6.	F01	above ground storage tanks - gas and diesel auxiliary fuel for Well #1 (has a spill containment system)
7.	F05	removed underground storage tank (facility ID #1510036) 82°21'28.415"W 31°12'42.303"N
8.	I10	storm water runoff
9.	W13	dumpsters
10.	T03	State Route 122
11.	T03	Norfolk Southern Railroad
12.	B23	city maintenance yard (used oil and vehicle fluids) 82°21'27.011"W 31°12'43.503"N
13.	B23	city fire department maintenance yard (used oil and vehicle fluids) 82°21'26.831"W 31°12'40.522"N
14.	B23	fire extinguisher refurbishing business 82°21'26.175"W 31°12'40.512"N Address: ABC Fire Equipment Co. 103 Isabella Street Waycross, Georgia 31506 (912) 285-3209
15.	B23	wrecker and road service shop (closed) 82°21'28.856"W 31°12'44.321"N Address: Alice Street Waycross, Georgia 31506
16.	B23	business district
17.	T03	State Route 38
18.	T03	U.S. Routes 82 & 84

Well #1
Control Zone:
15 foot radius

No potential pollution sources present.

Inner-Management Zone:
250 foot radius

PPS#	PPS Code	Description
1.	O04	electrical transformers
2.	O07	utility poles
3.	O08	vehicle parking areas
4.	S05	sewer lines
5.	T01	access and secondary roads
6.	F01	above ground storage tanks - gas and diesel
7.	F05	removed underground storage tank (facility ID #1510036)
8.	I10	storm water runoff
9.	W13	dumpsters
11.	T03	Norfolk Southern Railroad
12.	B23	city maintenance yard
13.	B23	city fire department maintenance garage
14.	B23	fire extinguisher refurbishing business

Outer-Management Zone:
825 foot radius

Note: PPS's #1, 2, 3, 4, 5, 8, 9, and 11 are also found in the Outer-Management Zone.

PPS#	PPS Code	Description
10.	T03	State Route 122
15.	B23	wrecker and road service shop (closed)
16.	B23	business district
17.	T03	State Route 38
18.	T03	U.S. Routes 82 & 84

Well #2
Control Zone:
15 foot radius

No potential pollution sources present.

Inner-Management Zone:
250 foot radius

PPS#	PPS Code	Description
1.	O04	electrical transformers
2.	O07	utility poles
3.	O08	vehicle parking areas
4.	S05	sewer lines
5.	T01	access and secondary roads
6.	F01	above ground storage tanks - gas and diesel
7.	F05	removed underground storage tank (facility ID #1510036)
8.	I10	storm water runoff
9.	W13	dumpsters
12.	B23	city maintenance yard

Outer-Management Zone:
1041 foot radius

Note: PPS's #1, 2, 3, 4, 5, 8, and 9 are also found in the Outer-Management Zone.

PPS#	PPS Code	Description
10.	T03	State Route 122
11.	T03	Norfolk Southern Railroad
13.	B23	city fire department maintenance yard
14.	B23	fire extinguisher refurbishing business
15.	B23	wrecker and road service shop (closed)
16.	B23	business district
17.	T03	State Route 38
18.	T03	U.S. Routes 82 & 84

Well #3
Control Zone:
15 foot radius

No potential pollution sources present.

Management Zone:
100 foot radius

PPS#	PPS Code	Description
1.	O04	electrical transformers
2.	O07	utility poles
3.	O08	vehicle parking areas
4.	S05	sewer lines
5.	T01	access and secondary roads
17.	T03	State Route 38

Part 3: MANAGEMENT PLAN

Local Wellhead Protection Ordinance
No

Responsibilities of the Georgia Environmental Protection Division (EPD)
Within the Inner- and Outer-Management Zones EPD shall:

- not issue any new permits for municipal solid waste, industrial waste and construction/demolition waste landfills;
- not issue any new permits for the land disposal of hazardous wastes;
- require all new facilities permitted to handle, treat, store or dispose of hazardous waste or hazardous materials perform such operations on an impermeable pad having a spill and leak collection system;
- require all new agricultural waste impoundments have an impermeable synthetic liner;
- not issue any new permits for land application of waste water or sludge;
- not issue any new permits for underground injection wells;
- not issue permits for any new quarries or underground mines unless a hydrogeological investigation is completed;
- require all new underground storage tanks meet the highest standards applicable under the UST Act; and,
- require all new waste water treatment basins to have an impermeable synthetic liner.

Recommendations to Local Governments from the Georgia Environmental Protection Division (EPD)
EPD recommends that the local government develop and adopt a local Wellhead Protection Ordinance.

PPS #1. PPS code O04 electrical transformers

The City of Waycross should periodically check electrical transformers for cracks and leaks in the event of accidental or storm damage. Damaged transformers should be reported to the local utility provider.

PPS #2. PPS code O07 utility poles

The City of Waycross should be aware that telephone and utility poles are treated with coal tar, creosote, or other wood preservatives.

PPS #3. PPS code O08 vehicle parking areas

The City of Waycross should recommend that all vehicle and equipment parking be restricted to paved areas where available.

PPS #4. PPS code S05 sewer lines

The City of Waycross should properly maintain sewer lines and repair all sewer line breaks and leaks. Any sewer line break or leak should be reported to the Georgia Environmental Protection Division, Water Protection Branch, Municipal Permitting Program, 4244 International Parkway, Suite 110, Atlanta, Georgia 30354, (404) 362-2680.

PPS #5. PPS code T01 access and secondary roads

The City of Waycross should report all hazardous waste and petroleum product spills or releases occurring within the wellhead protection area to the Department of Natural Resources at 1-800-241-4133.

PPS #6. PPS code F01 above ground storage tanks

The City of Waycross should periodically check the spill containment system for cracks and leaks. All petroleum product spills or releases should be reported to the Department of Natural Resources at 1- 800-241-4133. For more information concerning above ground fuel storage tanks, contact the State of Georgia Office of the Commissioner of Insurance, State Fire Marshall, Hazardous Materials, (404) 656-9798.

PPS #7. PPS code F05 removed underground storage tank

Historical information.

PPS #8. PPS code I10 storm water runoff

The City of Waycross should be aware that storm water runoff from parking areas may contain volatile organic compounds. Storm water runoff from residential areas may contain pesticides and fertilizers.

PPS #9. PPS code W13 dumpsters

The City of Waycross should recommend that solid waste collected in dumpsters be disposed of properly. For more information, contact the Solid Waste Management Program at (404) 362-2680.

PPS #10. PPS code T03 State Route 122

The City of Waycross should report all hazardous waste and petroleum product spills or releases occurring within the wellhead protection area to the Department of Natural Resources at 1-800-241-4133.

PPS #11. PPS code T03 Norfolk Southern Railroad

The City of Waycross should report all hazardous waste and petroleum product spills or releases occurring within the wellhead protection area to the Department of Natural Resources at 1-800-241-4133.

PPS #12. PPS code B23 city maintenance yard

The City of Waycross should employ best management practices in the operation of their facilities. Used oils and fluids should be disposed of properly. A list of educational materials on water quality issues can be obtained from the Georgia Environmental Protection Division, Watershed Planning and Monitoring Program, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, (404) 675-6236.

PPS #13. PPS code B23 fire department maintenance garage

The City of Waycross should employ best management practices in the operation of their facilities. Used oils and fluids should be disposed of properly. A list of educational materials on water quality issues can be obtained from the Georgia Environmental Protection Division, Watershed Planning and Monitoring Program, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, (404) 675-6236.

PPS #14. PPS code B23 fire extinguisher refurbishing business

The City of Waycross should recommend that business owners employ best management practices in the operation of their facilities. Used chemicals, oils and fluids should be disposed of properly. A list of educational materials on water quality issues can be obtained from the Georgia Environmental Protection Division, Watershed Planning and Monitoring Program, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, (404) 675-6236.

PPS #15. PPS code B23 wrecker and road service shop (closed)

Historical information

PPS #16. PPS code B23 business district

The City of Waycross should recommend that business owners employ best management practices in the operation of their businesses. A list of educational materials on water quality issues can be obtained from the Georgia Environmental Protection Division, Watershed Planning & Monitoring Program, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, (404) 675-6236.

PPS #17. PPS code T03 State Route 38

The City of Waycross should report all hazardous waste and petroleum product spills or releases occurring within the wellhead protection area to the Department of Natural Resources at 1-800-241-4133.

PPS #18. PPS code T03 U.S. Routes 82 & 84

The City of Waycross should report all hazardous waste and petroleum product spills or releases occurring within the wellhead protection area to the Department of Natural Resources at 1-800-241-4133.

General Recommendations

- The Control Zone should be protected from uses other than those directly dealing with the care and maintenance of the well.
- The Control Zone should be enclosed by a fence to limit access to the well.
- Access to the Control Zone should only be through a locking gate (or equivalent).
- Only those chemicals used for water treatment should be stored in the Control Zone; motor fuels, oil, motor vehicles or portable equipment powered by an internal combustion engine should not be stored in the Control Zone.
- Auxiliary power on site fuel storage should have a spill containment system for the entire volume of fuel.
- Wellhead Protection Areas should be protected from future potential pollution sources.
- The City of Waycross should post a notice in a public place notifying residents that a Wellhead Protection Plan is available for review.

Part 4: CONTINGENCY PLAN

The City of Waycross Water System consists of three wells. Should one well become inoperable, the other wells would serve the city's water needs until the first well was again operational or a new water source found.

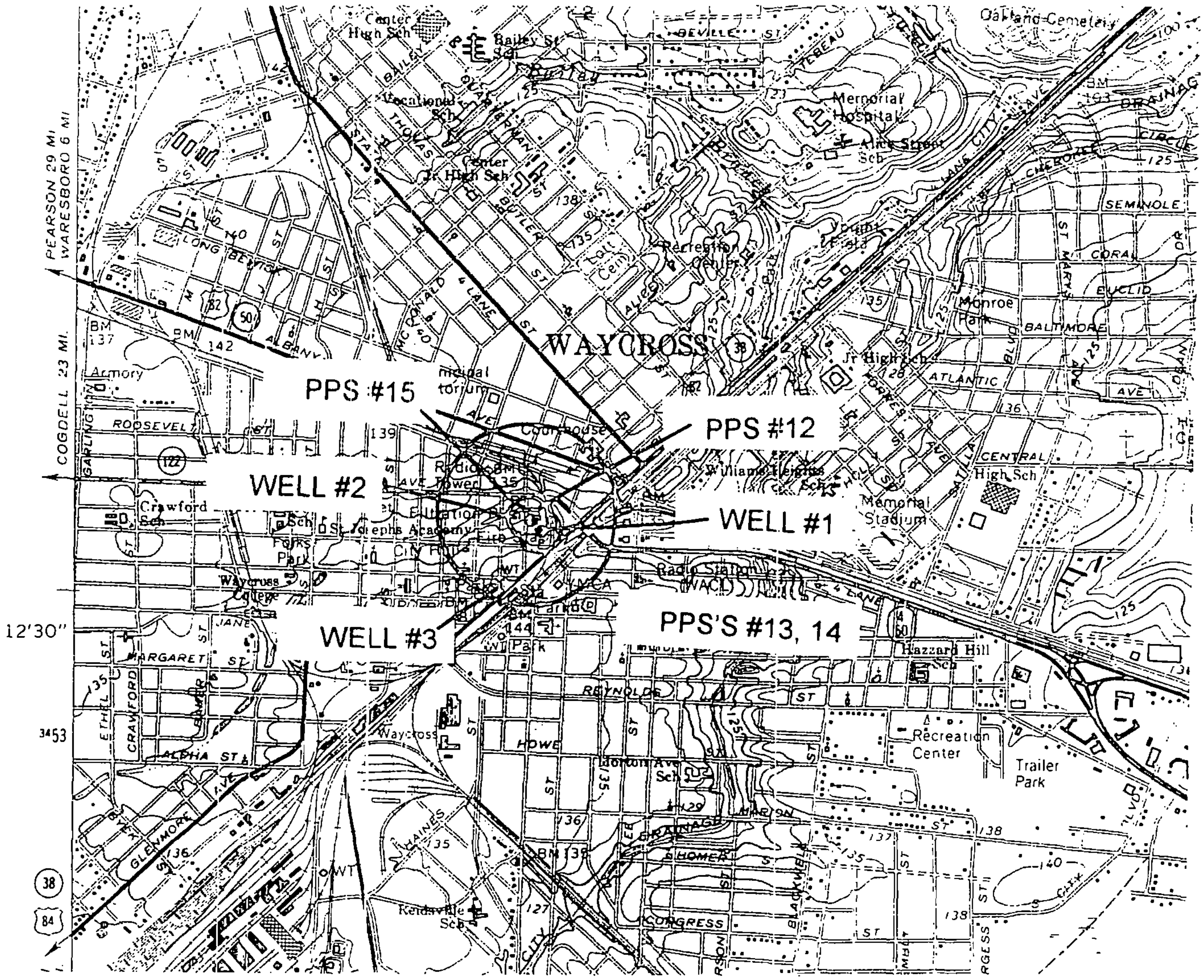
The City of Waycross should prepare a formal contingency plan stating how the city's water needs will be met in the event the current water source becomes inoperable.

CITY OF WAYCROSS

WELLS #1, 2 & 3

WELLHEAD PROTECTION AREAS

Datum NAD27



	WELL #1	WELL #2	WELL #3
Quadrangle:	Waycross East	Waycross East	Waycross East
Longitude:	82°21'26.069"W	82°21'28.142"W	82°21'31.443"W
Latitude:	31°12'42.441"N	31°12'44.568"N	31°12'35.975"N
Control Zone:	15 foot radius	15 foot radius	15 foot radius
Inner-Management Zone:	250 foot radius	250 foot radius	
Outer-Management Zone:	825 foot radius	1041 foot radius	
Management Zone:			100 foot radius

All Potential Pollution Sources (PPS's) are listed on Pages 3, 4 & 5.

APPENDIX A
INVENTORY OF POTENTIAL POLLUTION SOURCES

AGRICULTURE

A01 Agricultural Fields
A02 Agriculture Waste Impoundments
A03 Animal Burials
A04 Animal Feed Lots
A05 Commercial Animal Enclosures
A06 Fertilizer/Pesticide Storage
A07 Grain Storage Bins
A08 Irrigation Wells
A09 Pesticide Mixing Areas
A10 Other

BUSINESS AND INDUSTRY

B01 Asphalt Plant
B02 Auto Repair/Body Shop/Salvage Washes
B03 Auto/Truck/Boat/Equipment Dealers
B04 Business using Solvents/Paints
B05 Car Wash
B06 Chemical Production/Mixing/Storage
B07 Deicing Applications
B08 Electroplaters/Metal Finishers
B09 Fleet Service Facility
B10 Gasoline Station Service Bay
B11 Golf Courses/Nurseries
B12 Industrial Facilities
B13 Laundromats/Dry Cleaners
B14 Machine Shops
B15 Photo Processors
B16 Power Generating Facilities
B17 Printers
B18 Refineries
B19 Refinishing
B20 Salvage Operations
B21 Stockpiles
B22 Wood Chemical Treatment Facilities
B23 Other

FUEL STORAGE

F01 Above Ground Storage Tanks
F02 Fuel Storage Facility
F03 Oil/Gas Pipeline
F04 Underground Storage Tanks
F05 Other

HAZARDOUS MATERIALS

H01 Facilities Handling Hazardous Waste
H02 Hazardous Waste Disposal
H03 Hazardous Waste Management Units
H04 Radioactive Disposal and Storage
H05 Other

INJECTION AND INFILTRATION

I01 Abandoned Wells
I02 Domestic Wells
I03 Drainage Canals
I04 Holding Pond/Lagoon
I05 Infiltration Galleries
I06 Injection Wells
107 Neighboring Polluted Wells
I08 Salt Water Intrusion/Upconing
I09 Sinkholes Modified/Natural
I10 Storm Water Runoff/Infiltration
I11 Swamps/Wetlands/Flood plain
I12 Urban Runoff
I13 Other

KNOWN POLLUTION

P01 Accident Spill Locations
P02 Hazardous Waste Sites
P03 Other

LANDFILLS

L01 Construction Waste Landfills
L02 Industrial Waste Landfills
L03 Municipal Solid Waste Landfills
L04 Others, Active or Abandoned

MINING AND CONSTRUCTION

M01 Borrow Pits
M02 Construction Excavations
M03 Detonation Sites
M04 Mining Operations
M05 Quarries/Underground Mines
M06 Other

SEWAGE AND WATER TREATMENT

S01 Domestic Septic Systems
S02 Lift Station
S03 Non-Domestic Septic Systems
S04 Sewage Treatment Plant
S05 Sewer Lines
S06 Treatment Lagoons/Ponds
S07 Waste Water Treatment Basin
S08 Water Treatment Facilities
S09 Other

TRANSPORTATION

T01 Access and Secondary Roads
T02 Airports
T03 Major Highways and Railroads
T04 Transportation Corridors
T05 Other

WASTE DISPOSAL SITES

W01 Abandoned Disposal Site
W02 Abandoned Drums
W03 Cesspools
W04 Drum Storage/Disposal/Recycling
W05 Dumps
W06 Garbage Transfer Stations
W07 Land Application Systems
W08 Open Pit Burning
W09 Recycling Facilities
W10 Sludge Application
W11 Sludge Producing Facility
W12 Waste Piles
W13 Other

OTHER

O01 Atmospheric Pollution Percolation
O02 Abandoned Cars/Vehicles
O03 Cemeteries
O04 Electrical Transformers
O05 Military Base/Depot
O06 Utility Corridors
O07 Utility Poles
O08 Vehicle Parking Areas
O09 Other

Reference 26

GEORGIA
STATE DIVISION OF CONSERVATION
DEPARTMENT OF MINES, MINING AND GEOLOGY
GARLAND PEYTON, Director

THE GEOLOGICAL SURVEY
Bulletin Number 70

WELL LOGS OF THE COASTAL PLAIN OF GEORGIA

by

Stephen M. Herrick, Geologist
United States Geological Survey

Prepared cooperatively by the U. S. Geological Survey

ATLANTA
1961

TWIGGS COUNTY

Location: Approximately 1 mi. south of Dry Branch, 1.5 mi. east of U.S. Highway 80
Owner: Georgia Kaolin Company
Driller: Layne-Atlantic Company
Drilled: March 1955

Well No.: GGS 415
Elev.: 430

	Thickness (feet)	Depth (feet)
Upper Eocene: Jackson Group: Barnwell Formation:		
Sand: fine to medium-grained, gray, argillaceous	24	24
Sand: fine to coarse-grained, angular, somewhat arkosic	20	44
Upper Cretaceous: Tuscaloosa Formation:		
Kaolin: micaceous, somewhat sandy	21	65
Sand: fine to coarse-grained, angular, arkosic	117	182
Kaolin: mottled, micaceous, somewhat sandy	12	194
Sand: coarse-grained, angular; kaolin, white	14	208
Clay: brick-red, micaceous, sandy	23	231
Sand: fine to coarse-grained, angular, arkosic	141	372

Summary:

Upper Eocene (Barnwell formation)	44	44
Upper Cretaceous (Tuscaloosa formation)	328	372

Potential Water-Bearing Zones:

Sand: fine to coarse-grained	100	331

Remarks:

Well samples of poor quality.

TWIGGS COUNTY

Location: Northeastern part of county, 1.75 mi. southeast of Liberty Church which is 0.75 mi. east of Myerick's Pond
Owner: No. 23 Georgia Kaolin Co.
Driller: Layne-Atlantic Company
Drilled: March 1955

Well No.: GGS 416
Elev.: 380

	Thickness (feet)	Depth (feet)
Upper Eocene: Jackson Group: Barnwell Formation:		
Clay: mottled, very sandy, limonitic	6	6
Marl: light-gray, silty, glauconitic	17	23
Sand: fine to coarse-grained, angular, phosphatic; interbedded marl, as above	45	68
Sand: fine to coarse-grained, angular	22	90
Upper Cretaceous: Tuscaloosa Formation:		
Clay: light-gray, sandy, micaceous	10	100
Sand: fine to coarse-grained, angular, somewhat arkosic; interbedded clay, as above	85	185
Sand: coarse-grained, angular, arkosic; interbedded thin beds of kaolin	248	433

Summary:

Upper Eocene (Barnwell formation)	90	90
Upper Cretaceous (Tuscaloosa formation)	343	433

Potential Water-Bearing Zones:

Sand: fine to coarse-grained	228	413

Remarks:

Well samples of poor quality.

WARE COUNTY

Location: At Airport, City of Waycross
Owner: No. 1 Waycross Airport
Driller: Layne-Atlantic Company

Well No.: GGS 36
Elev.: 142

Pliocene to Recent (Undifferentiated):		
Sand: fine to coarse-grained, finely disseminated phosphatic grains	15	15
Clay: pale-green to red (mottled), sandy	10	25
Sand: medium to coarse-grained, arkosic	17	42
Sand: as above; clay, tan to red (mottled), sandy; fragments of limestone, light-gray, dense, sandy	20	62
Miocene (Undifferentiated):		
Clay: dark-green, sandy; interbedded sand, fine to coarse-grained, phosphatic	265	327

	Thickness (feet)	Depth (feet)
Sand: fine to coarse-grained, phosphatic	50	377
Sand: as above; interbedded limestone, white, sandy; clay, dark-green, sandy, phosphatic	63	440
Dolomitic limestone: light-brown, saccharoidal, sandy, phosphatic	50	490

Oligocene (Undifferentiated):

	Thickness (feet)	Depth (feet)
Limestone: light-gray, dense (much calcitized), nodular, fossiliferous (some Foraminifera)	8	498

Dictyoconus[1] sp. at 490-498.

Upper Eocene: Jackson Group: Ocala Limestone:

	Thickness (feet)	Depth (feet)
Limestone: cream, much calcitized, saccharoidal, fossiliferous (Foraminifera)	123	621

Gypsina globula, Operculinoides floridensis at 550-560.
Asterocyclina nassauensis at 570-580.

Summary:

	Thickness (feet)	Depth (feet)
Pliocene to Recent (undifferentiated)	62	62
Miocene (undifferentiated)	428	490
Oligocene (undifferentiated)	8	498
Upper Eocene (Ocala limestone)	123	621

Potential Water-Bearing Zones:

	Thickness (feet)	Depth (feet)
Sand: fine to coarse-grained	50	377
Limestone	131	621

WARE COUNTY

Location: In City of Waycross
Owner: No. 3 City of Waycross
Driller: Layne-Atlantic Company

Well No.: GGS 366
Elev.: 140

Pliocene to Recent (Undifferentiated):

	Thickness (feet)	Depth (feet)
Sand: fine to medium-grained, finely disseminated phosphatic grains and scattered kaolin inclusions	10	10
Sand: fine to coarse-grained, arkosic, rounded; clay, light-gray to red (mottled), sandy	15	25
Clay: pale-green to purple (mottled), sandy	15	40
Sand: fine to coarse-grained, arkosic, rounded	25	65

[1]Reworked (?) fossil of middle Eocene age.

Miocene (Undifferentiated):

	Thickness (feet)	Depth (feet)
Clay: dark-green, sandy; interbedded sand, fine to coarse-grained, phosphatic	135	200
Sand: fine to coarse-grained, phosphatic	50	250
Dolomitic limestone: light-brown, saccharoidal, sandy, phosphatic; interbedded limestone, white, sandy; sand, fine to coarse-grained, phosphatic	90	340
Clay: light-gray, calcareous	20	360
Dolomitic limestone: light-brown, saccharoidal, sandy, phosphatic; interbedded limestone, white, sandy; sand, fine to coarse-grained, phosphatic	70	430
Limestone: white, dense (much calcitized), sandy, phosphatic, fossiliferous (fragments and molds of megafossils)	60	490

Oligocene (Undifferentiated):

	Thickness (feet)	Depth (feet)
Limestone: light-gray, dense (much calcitized), nodular, fossiliferous (some Foraminifera)	20	510

Dictyoconus[1] sp., *Quinqueloculina* sp. at 490-500.

Upper Eocene: Jackson Group: Ocala Limestone:

	Thickness (feet)	Depth (feet)
Limestone: white, dense (much calcitized), fossiliferous (Foraminifera)	265	775

Gypsina globula at 510-520.
Asterocyclina nassauensis, Operculinoides sp. at 550-560.
Amphistegina pinarensis var. at 680-690.

Summary:

	Thickness (feet)	Depth (feet)
Pliocene to Recent (undifferentiated)	65	65
Miocene (undifferentiated)	425	490
Oligocene (undifferentiated)	20	510
Upper Eocene (Ocala limestone)	265	775

Potential Water-Bearing Zones:

	Thickness (feet)	Depth (feet)
Sand: fine to coarse-grained	50	250
Limestone	285	775

[1]Reworked (?) fossil of middle Eocene age.

WARE COUNTY

Location: 1 block northeast of Post Office at Coca Cola Plant in Waycross
Well No.: GGS 527
Elev.: 140'[1]
Owner: No. 1 Coca Cola Company
Driller: M. M. Gray Drilling Company
Drilled: January 1957

	Thickness (feet)	Depth (feet)
Pliocene to Recent (Undifferentiated):		
Sand: fine to medium-grained, argillaceous, finely disseminated phosphatic grains and kaolin inclusions	15	15
Miocene (Undifferentiated):		
Clay: mottled, sandy, some sand as above	25	40
Sand: fine to coarse-grained, angular, arkosic	60	100
Sand: coarse-grained, arkosic; clay, dark-green, sandy	260	360
Black phosphatic pebbles abundant at 310-320.		
Dolomitic limestone: light-brown, saccharoidal, sandy, phosphatic; interbedded limestone, white, dense (much calcitized), sandy, phosphatic	120	480
Oligocene (Undifferentiated):		
Limestone: cream, very dense (highly calcitized), fossiliferous (Ostracods and Foraminifera)	20	500
Dictyoconus[2] sp., *Quinqueloculina* sp. at 480-490.		
No samples	20	520
In Upper Eocene: Jackson Group: Ocala Limestone:		
Limestone: light-gray, very dense (highly calcitized), fossiliferous (abundant Foraminifera)	170	690
Gypsina globula, *Pseudophragmina flintensis*, *Asterocyclina nassauensis* at 520-530.		
Limestone: cream, much calcitized, massive	18	708

Summary:

Pliocene to Recent (undifferentiated)	15	15
Miocene (undifferentiated)	465	480
Oligocene (undifferentiated)	20	500
No samples	20	520
In upper Eocene (Ocala limestone)	188	708

[1] Average elevation based on Georgia State Highway Maps.
[2] Reworked(?) fossil of middle Eocene age.

Potential Water-Bearing Zones:

	Thickness (feet)	Depth (feet)
Limestone	228	708

Remarks:

Samples of poor quality.

WARE COUNTY

Location: In Waresboro, northwestern part of Waycross
Well No.: GGS 538
Owner: No. 1 Waresboro Elementary School
Driller: Turner Well Drilling Company
Drilled: April 1957

	Thickness (feet)	Depth (feet)
Pliocene to Recent (Undifferentiated):		
Sand: medium to coarse-grained, subangular	25	25
Clay: pale-greenish-gray, sandy, micaceous	60	85
Miocene (Undifferentiated):		
Clay: dark-olive-green to brownish-gray, sandy	62	147
No samples	10	157
Sand: fine to medium-grained, subangular	10	167
Sand: coarse-grained, subrounded, phosphatic, arkosic	10	177
Limestone: light-gray to light-brown, much calcitized, saccharoidal, sandy, phosphatic, cherty	31	208
Brownish-gray chert (or siltstone?) prominent at 198-208.		
Clay: greenish-gray, blocky, sandy, phosphatic; interbedded sand, fine to medium-grained, subangular	62	270
Limestone: cream to light-brown, saccharoidal, sandy, phosphatic	30	300
Sand: medium to coarse-grained, subangular, phosphatic	11	311
Limestone: cream to light-gray, saccharoidal, sandy, phosphatic, fossiliferous (megafossils, echinoid and bryozoan remains, and some Foraminifera at depth)	92	403
First observed megafossils at 311-321.		
Elphidium sagrum, *Elphidium poeyanum*, *Valvulineria* sp., *Cibicides concentricus* at 403-413.		
Limestone: light-brown, saccharoidal, sandy, phosphatic	10	413

	Thickness (feet)	Depth (feet)
Oligocene (Undifferentiated):		
Limestone: light-gray to cream at depth, rather massive, somewhat nodular, fossiliferous (bryozoan remains and some Foraminifera)	62	475
Quinqueloculina sp., *Rotalia mexicana* var. at 413-423.		
Dictyoconus[1] sp., *Quinqueloculina* sp. at 423-434.		
Gypsina globula[1] at 465-475.		
No samples	9	484
In Upper Eocene: Jackson Group: Ocala Limestone:		
Limestone: cream, relatively soft and porous, calcitized, granular, fossiliferous (bryozoan remains and some Foraminifera)	114	598
Operculinoides sp. at 484-495.		
Asterocyclina sp., *Operculinoides* sp. at 505-516.		

Summary:

Pliocene to Recent (undifferentiated)	85	85
Miocene (undifferentiated)	328	413
Oligocene (undifferentiated)	62	475
No samples	9	484
In upper Eocene (Ocala limestone)	114	598

Potential Water-Bearing Zones:

Limestone	114	598

WASHINGTON COUNTY

Location: 1.4 mi. southwest of junction of Highways 15 and 24 in Sandersville, near east side of Highway 15 near concrete reservoir
Owner: City of Sandersville well no. 5
Driller: Layne-Atlantic Company
Drilled: June 1944

Well No.: GGS 94
Elev.: 465

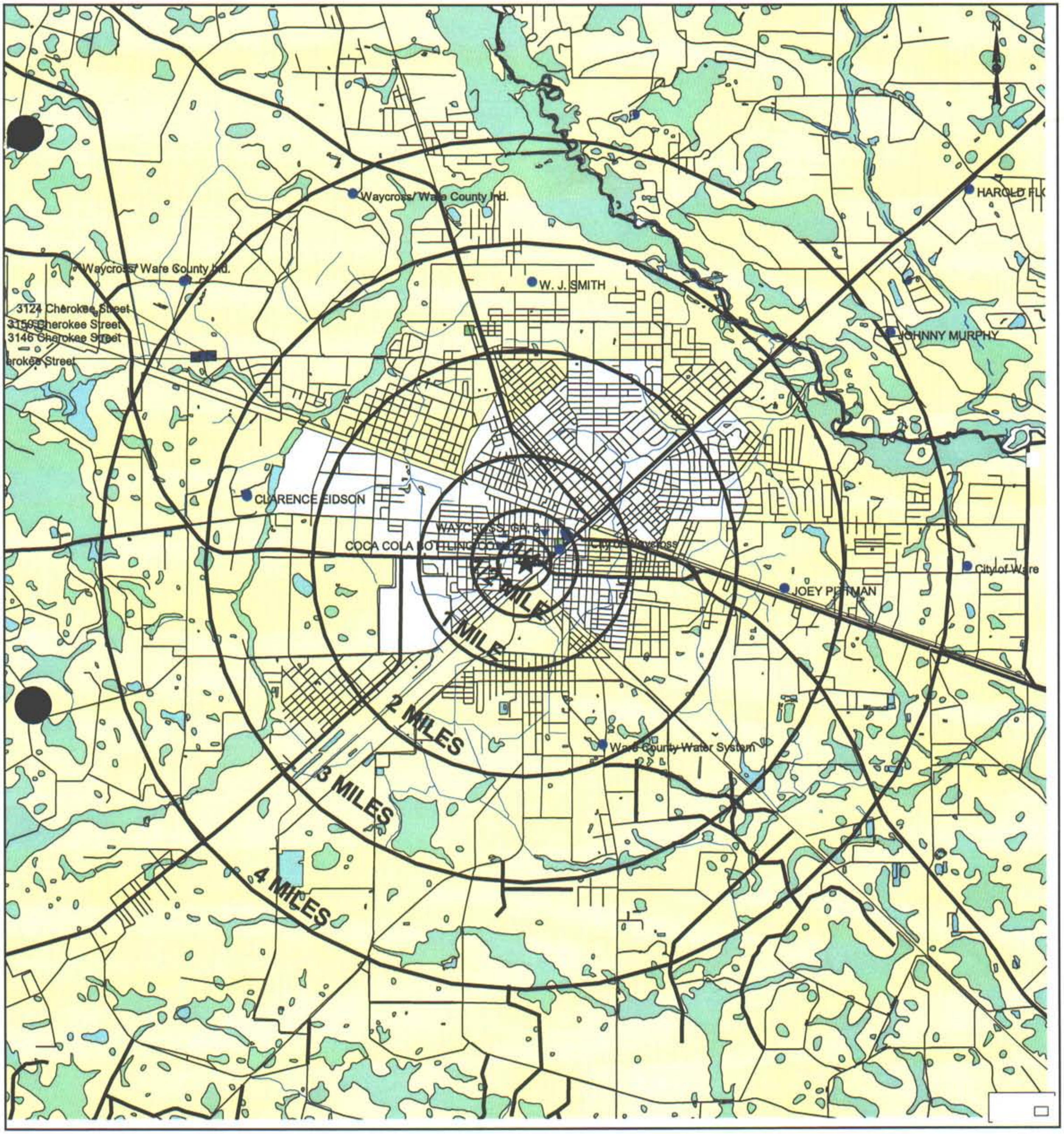
	Thickness (feet)	Depth (feet)
Miocene: Hawthorn Formation:		
Clay: bluish-green to red (mottled), light-gray at depth, blocky, sandy, limonitic	50	50
Upper Eocene: Jackson Group: Barnwell Formation:		
Sand: fine to medium-grained, angular, somewhat indurated	5	55

[1]Reworked fossil of middle Eocene age.

	Thickness (feet)	Depth (feet)
Limestone[1]: white, dense, somewhat saccharoidal (calcitized), sandy, much sandier at depth, cherty, coarsely but sparsely glauconitic, fossiliferous (echinoid and bryozoan remains and Ostracods)	62	117
Sand: fine to coarse-grained, subangular	13	130
Marl: light-gray, silty, blocky, fossiliferous (echinoid and bryozoan remains, macroshells, Ostracods, and Foraminifera)	23	153
Elphidium sp., *Nonion advena*, *Nonion inexcavatus*, *Valvulineria jacksonensis* at 132-134.		
Limestone (or coquina): gray, dense, somewhat saccharoidal, very sandy, fossiliferous (fragments and casts and molds of megafossils)	13	166
Marl: light-gray, somewhat indurated, fissile, silty, progressively sandier at depth, carbonaceous, fossiliferous (echinoid and bryozoan remains, Ostracods, and Foraminifera)	16	182
Limestone (or coquina): gray to cream, crystalline to saccharoidal, very sandy, fossiliferous (fragments and molds of megafossils)	5	187
Marl: light-brown, somewhat indurated, fissile, carbonaceous, sandy	10	197
Sand: fine to coarse-grained, angular	5	202
Marl: gray, somewhat indurated, fissile, carbonaceous, sandy	5	207
Limestone (or coquina): greenish-gray, dense, very sandy, phosphatic (finely disseminated), fossiliferous (casts and molds of megafossils and bryozoan remains)	53	260
Upper Cretaceous: Tuscaloosa Formation:		
Sand: fine to coarse-grained, angular, limonitic; some clay (or kaolin), gray to red (mottled), micaceous; limestone, "cave" from above	6	266
Kaolin: gray, blocky, micaceous, somewhat sandy	5	271
Kaolin: white, micaceous, somewhat sandy	71	342
Clay: gray to dark-brown, lignitic	20	362
Sand: fine to coarse-grained; interbedded thin stringers of clay, as above	81	443

[1]Probable Sandersville limestone.

Reference 27



Roads
State and US Highways
Interstate Highways
Rivers/Streams
Lake/Pond
Swamp/Marsh
Census Block Group Boundaries
Census Block Group with >zero domestic well

HOUSEHOLD
Public Supply
INDUSTRIAL
Unknown

Seven Out Property
Waycross, Ware County

Scale: 1 inch = 1 mile

31 12' 28" 82 21' 50"

Sources: Wells from USGS GWSI (1999); EPD WRB Non-Municipal Wells (1997); EPD HWMB field surveys (1999); Surface Water Intakes from EPD GSB DR96-27(1996); Roads, Rivers, Wetlands from Georgia DOT (1993); Census data from U.S. Bureau of Census (1990)

04/05/2005

Reference 28

Seven Out Corporation
Waycross, Ware County

LAT 31° 12' 28"N / LONG 82° 21' 50"W

	Population		Households	
Rad	**Ring**	**Total**	**Ring**	**Total**
.25	167	167	66	66
.5	1241	1408	454	520
1	4090	5498	1619	2139
2	9644	15142	3956	6095
3	7195	22337	2943	9038
4	2995	25333	1175	10212

Source: Census of Populaton and Housing, 2000: Summary Tape File 3 on CD-ROM Georgia [machine-readable data files] / prepared by the Bureau of the Census. –Washington: The Bureau [producer and distributor], 2002.

Seven Out Corporation
Waycross, Ware County

LAT 31° 12' 28"N / LONG 82° 21' 50"W

1990
Residential

	Population		Households		Households Domestic Well		Households Public Water		Population Domestic Well		Population Public Water	
RAD	**Ring**	**Total**	**Ring**	**Total**	**Ring**	**Total**	**Ring**	**Total**	**Ring**	**Total**	**Ring**	**Total**
0.25	310	310	131	131	0	0	131	131	0	0	310	310
0.50	870	1180	366	498	1	1	366	497	2	2	868	1178
1.00	3556	4737	1411	1909	7	8	1404	1901	20	22	3536	4714
2.00	9521	14258	3684	5593	104	112	3579	5481	271	293	9251	13965
3.00	6215	20473	2330	7922	307	419	2022	7503	842	1135	5373	19338
4.00	3692	24164	1281	9203	295	714	986	8489	895	2030	2797	22135

Source: Census of Populaton and Housing, 1990: Summary Tape File 3 on CD-ROM Georgia [machine-readable data files] / prepared by the Bureau of the Census. –Washington: The Bureau [producer and distributor], 1992.

Reference 29

Record of Telecommunication

Date: April 27, 2005	Contact: Gene Thomas with the City of Waycross Public Works	Telephone # 912/287-2940	By: Eddie Williams with the Georgia Hazardous Waste Management Branch

Subject:
Production Rates for the five operating wells within the Public Works were provided as follows:

City of Waycross #1 – 10,000 gallons/month
City of Waycross #2 – 9,125,000 gallons/month
City of Waycross #3 - 57,791,667 gallons/month
Waycross/Ware County Industrial Park #1 – 8,060,417 gallons/month
Waycross/Ware County Industrial Park #2 – 5,322,917 gallons/month

All wells are blended within the system. All system wells are backed up by the Satilla Regional Water and Sewer Authority wells through valves that can be opened or closed on demand.

Reference 30

Record of Telecommunication

Date: April 27, 2005	Contact: Derrell McDaniel with the Satilla Regional Water and Sewer Authority	Telephone # 912/287-4366	By: Eddie Williams with the Georgia Hazardous Waste Management Branch

Subject:
Production Rates for the four operating wells within the Authority were provided as follows:

Monroe Street Well - 10,023,000 gallons/month
Emerson Park Well – 5,144,000 gallons/month
Driggers Road Well – 7,365,000 gallons/month
Swamp Road Well -- 1,542,000 gallons/month
Waresboro Well – 8,042,000 gallons/month

All wells are blended within the system. All system wells are backed up by the City of Waycross wells through valves that can be opened or closed on demand.

Reference 31

WATER USE IN GEORGIA BY COUNTY FOR 2000 AND WATER-USE TRENDS FOR 1980–2000

by Julia L. Fanning
U.S. GEOLOGICAL SURVEY

GEORGIA DEPARTMENT OF NATURAL RESOURCES
Lonice Barrett, Commissioner

ENVIRONMENTAL PROTECTION DIVISION
Harold F. Reheis, Director

GEORGIA GEOLOGIC SURVEY
William H. McLemore, State Geologist

Prepared in cooperation with the
U.S. GEOLOGICAL SURVEY

Atlanta, Georgia
2003

INFORMATION CIRCULAR 106

WARE COUNTY

Population: 35,483
Population served by public supply: 30,005
Acres irrigated: 4,710
Hydroelectric use (Mgal/d): 0.00

2000 WITHDRAWALS, IN MILLION GALLONS PER DAY

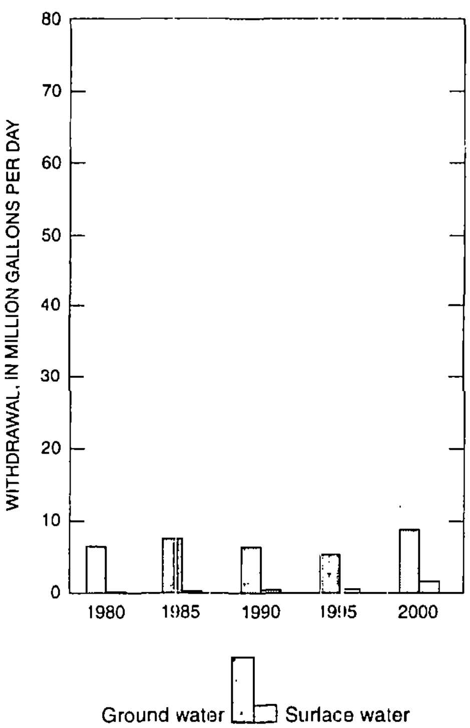
	Public Supply	Domestic & Commercial	Industrial & Mining	Irrigation	Livestock	Thermo-electric	TOTALS
Ground Water	3.85	1.21	0.81	2.97	0.01	0.00	8.85
Surface Water	0.00	0.00	0.00	1.55	0.08	0.00	1.63
TOTALS	3.85	1.21	0.81	4.52	0.09	0.00	10.48

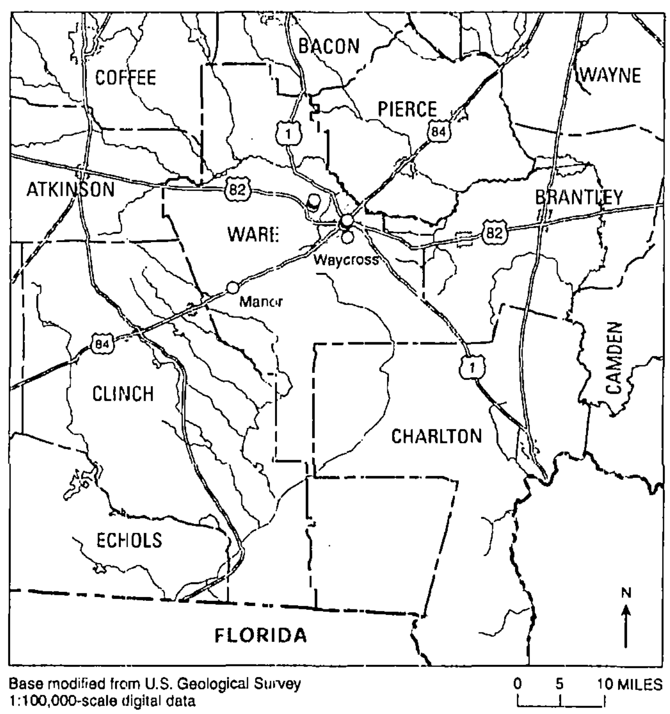
Withdrawals by Major Public Suppliers (Mgal/d):

NAME	GW	SW
City of Manor	0.37	0.00
Ware County Water System	1.36	0.00
City of Waycross	2.10	0.00

Withdrawals by Major Industrial Groups (Mgal/d):

SIC	GW	SW
30-Rubber	0.59	0.00





Base modified from U.S. Geological Survey
1:100,000-scale digital data

WITHDRAWAL LOCATION
FOR MAJOR USER
o Ground water

WARE COUNTY

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Population served by public supply: 30,005
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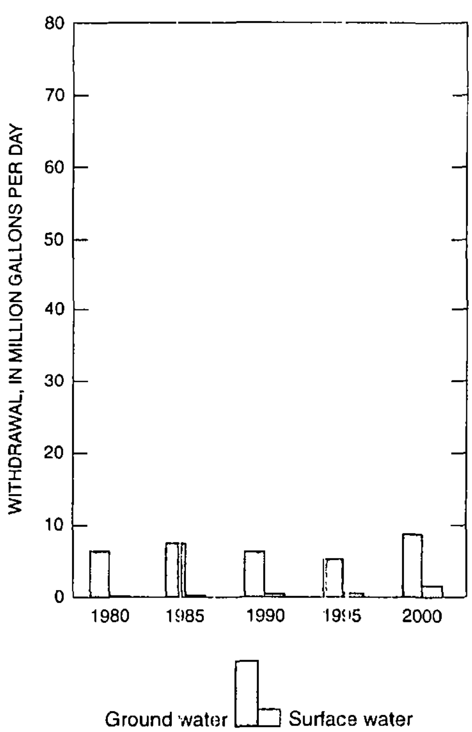
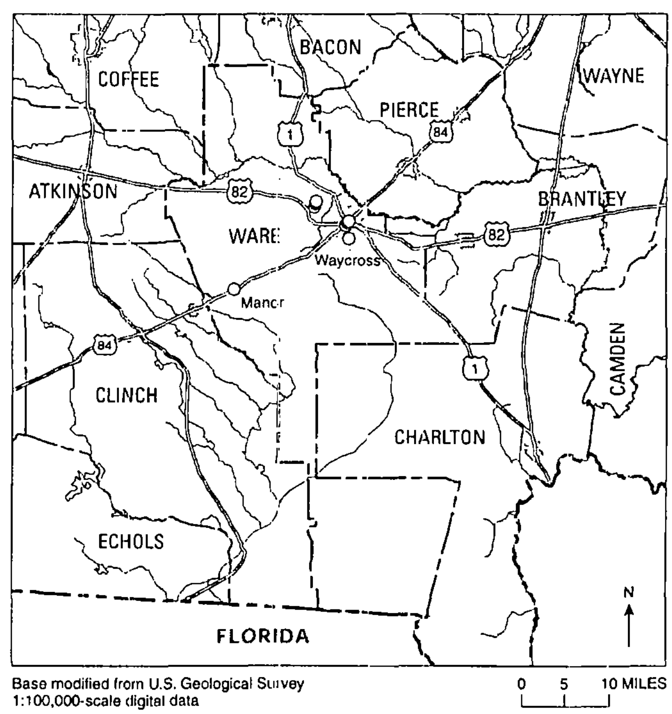
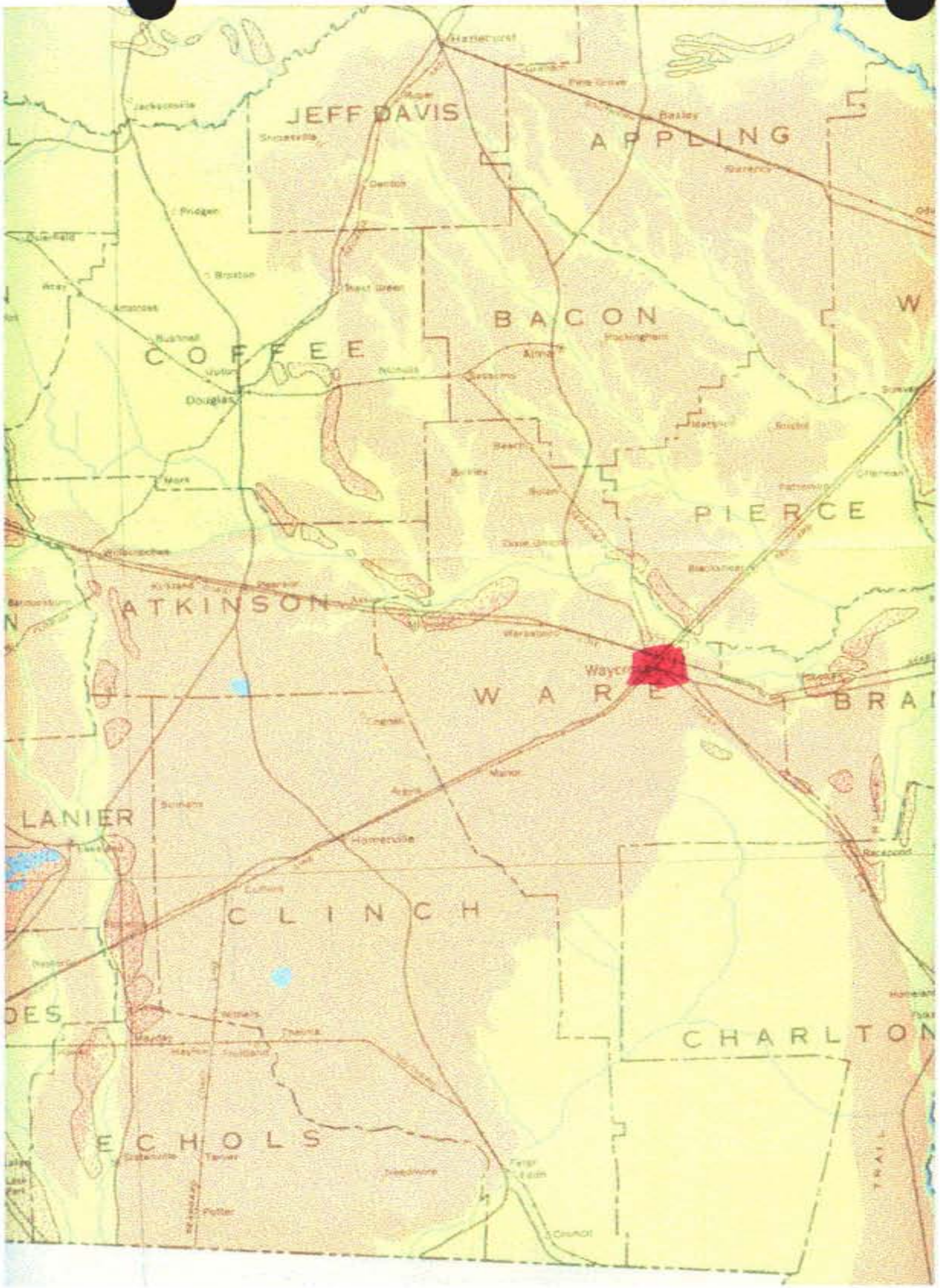




Base modified from U.S. Geological Survey 1:100,000-scale digital data

WITHDRAWAL LOCATION FOR MAJOR USER
O Ground water

Reference 32



EXPLANATION

HIGHER SUSCEPTIBILITY AREAS (DRASTIC RATING >181)

AVERAGE SUSCEPTIBILITY AREAS (DRASTIC RATING OF 141–181)

LOWER SUSCEPTIBILITY AREAS (DRASTIC RATING <141)

MAJOR WATER BODIES

MOST SIGNIFICANT GROUND-WATER RECHARGE AREAS OF GEORGIA, HYDROLOGIC ATLAS 18, 1989, SCALE 1:500,000

STREAMS AND LAKES STATE OF GEORGIA HYDROLOGY BASE MAP, 1966. SOURCE: USGS, SCALE 1:500,000

MAJOR HIGHWAYS AND ROADS STATE OF GEORGIA ROADS BASE MAP, 1974. SOURCE: NCIC, SCALE 1:2,000,000

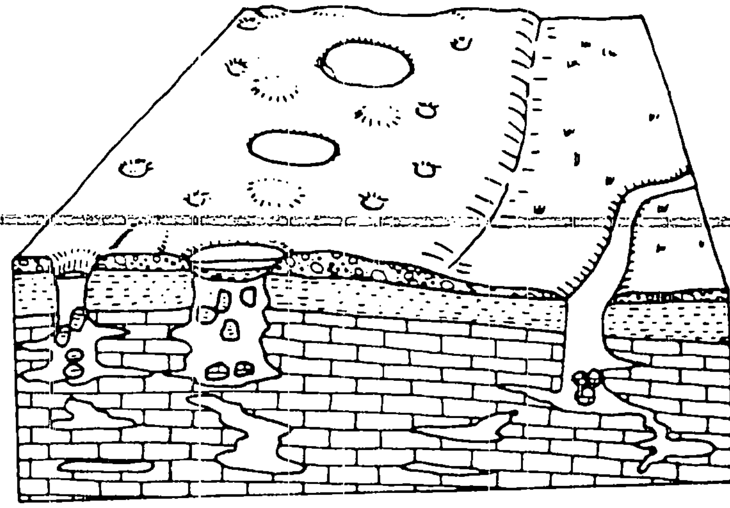
HYDROLOGIC ATLAS 20

GROUND-WATER POLLUTION SUSCEPTIBILITY MAP OF GEORGIA

by

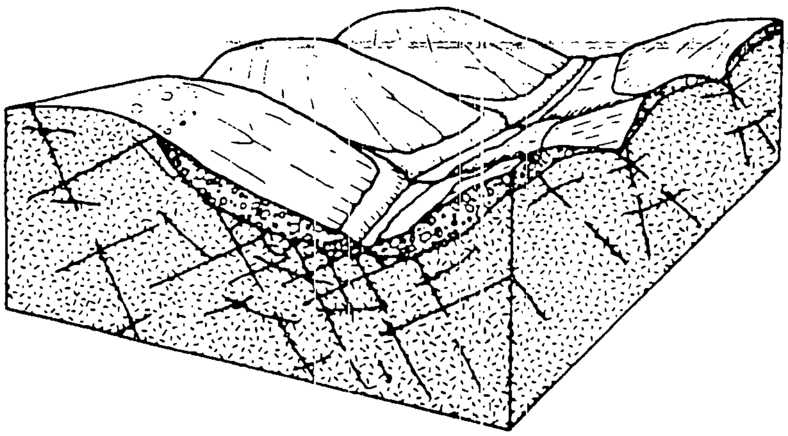
Victoria P. Trent

The preparation of this atlas was financed in part through a grant from the U.S. Environmental Protection Agency under the provisions of Section 106 of the Federal Water Pollution Control Act of 1972, as amended.



HYDROGEOLOGY OF THE SOUTHEASTERN COASTAL PLAIN

HYDROGEOLOGY OF THE PIEDMONT AND BLUE RIDGE



Department of Natural Resources
Joe D. Tanner, Commissioner

Environmental Protection Division
Harold F. Reheis, Director

Georgia Geologic Survey
William H. McLemore, State Geologist

ATLANTA

1992

Reference 33

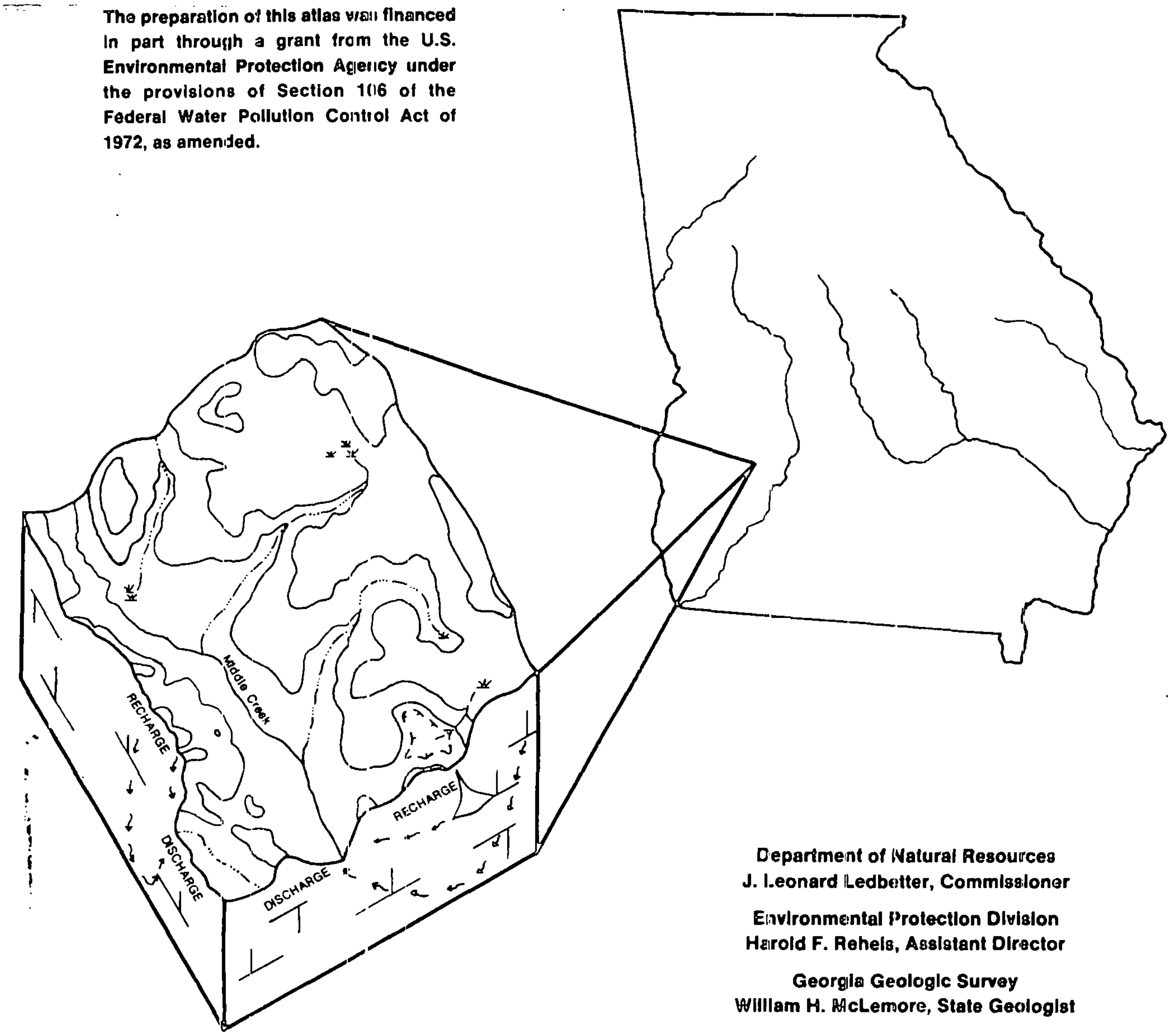
HYDROLOGIC ATLAS 18

MOST SIGNIFICANT GROUND-WATER RECHARGE AREAS OF GEORGIA

by

Kenneth R. Davis, John C. Donahue, Robert H. Hutcheson, and Deborah L. Waldrop

The preparation of this atlas was financed in part through a grant from the U.S. Environmental Protection Agency under the provisions of Section 106 of the Federal Water Pollution Control Act of 1972, as amended.



Department of Natural Resources
J. Leonard Ledbetter, Commissioner

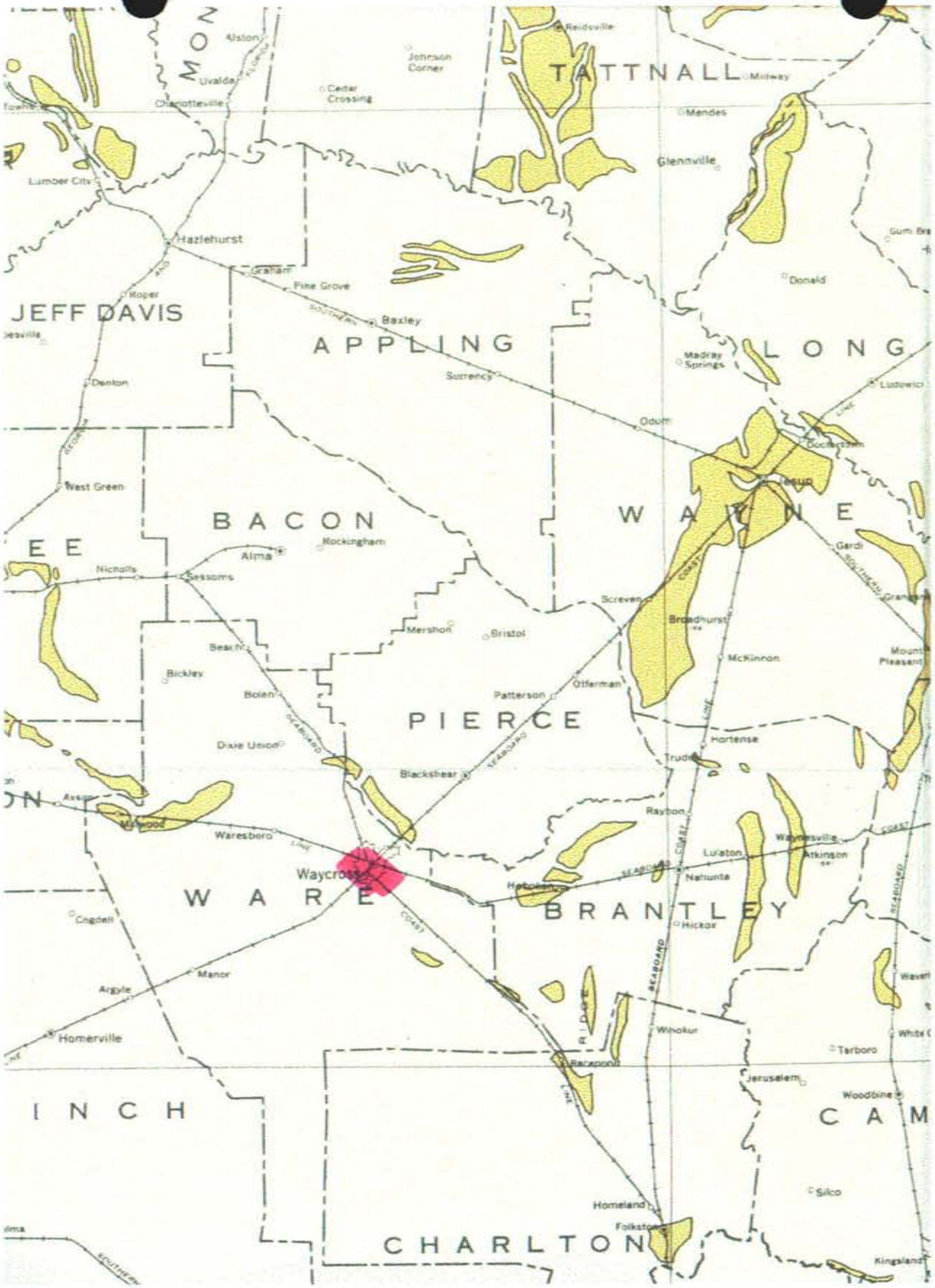
Environmental Protection Division
Harold F. Reheis, Assistant Director

Georgia Geologic Survey
William H. McLemore, State Geologist

ATLANTA

1989

RETURN TO EDDIE WILLIAMS



RECHARGE AREAS FOR:

COASTAL PLAIN PROVINCE

- MIOCENE/PLIOCENE-RECENT UNCONFINED AQUIFERS
- FLORIDAN/JACKSONIAN AQUIFER SYSTEM
- CLAIBORNE AQUIFER SYSTEM
- CLAYTON AQUIFER SYSTEM
- CRETACEOUS-TERTIARY AQUIFER SYSTEM

RIDGE AND VALLEY PROVINCE

- UNCONFINED AQUIFERS

PIEDMONT PROVINCE

- PROBABLE AREAS OF THICK SOILS (may be significant recharge areas)

WATER USE IN GEORGIA BY COUNTY FOR 2000 AND WATER-USE TRENDS FOR 1980–2000

by Julia L. Fanning
U.S. GEOLOGICAL SURVEY

GEORGIA DEPARTMENT OF NATURAL RESOURCES
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GEORGIA GEOLOGIC SURVEY
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Prepared in cooperation with the
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Atlanta, Georgia
2003

INFORMATION CIRCULAR 106

WARE COUNTY

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Population served by public supply: 30,005
Acres irrigated: 4,710
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2000 WITHDRAWALS, IN MILLION GALLONS PER DAY

	Public Supply	Domestic & Commercial	Industrial & Mining	Irrigation	Livestock	Thermo-electric	TOTALS
Ground Water	3.85	1.21	0.81	2.97	0.01	0.00	8.85
Surface Water	0.00	C.00	0.00	1.55	0.08	0.00	1.63
TOTALS	3.85	1.21	0.81	4.52	0.09	0.00	10.48

Withdrawals by Major Public Suppliers (Mgal/d):

NAME	GW	SW
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Ware County Water System	1.36	0.00
City of Waycross	2.10	0.00

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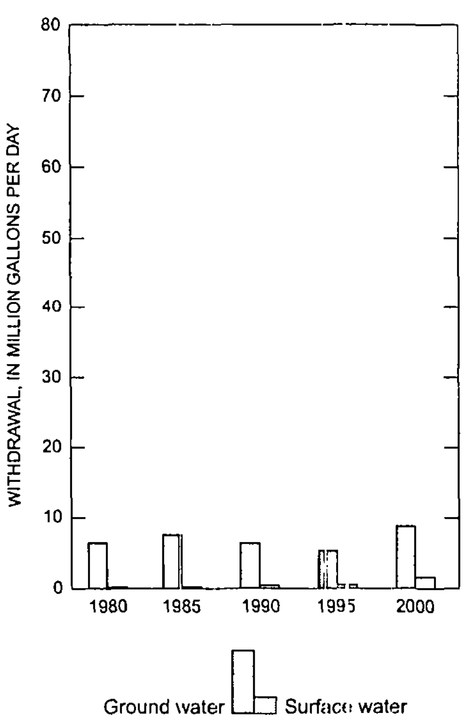
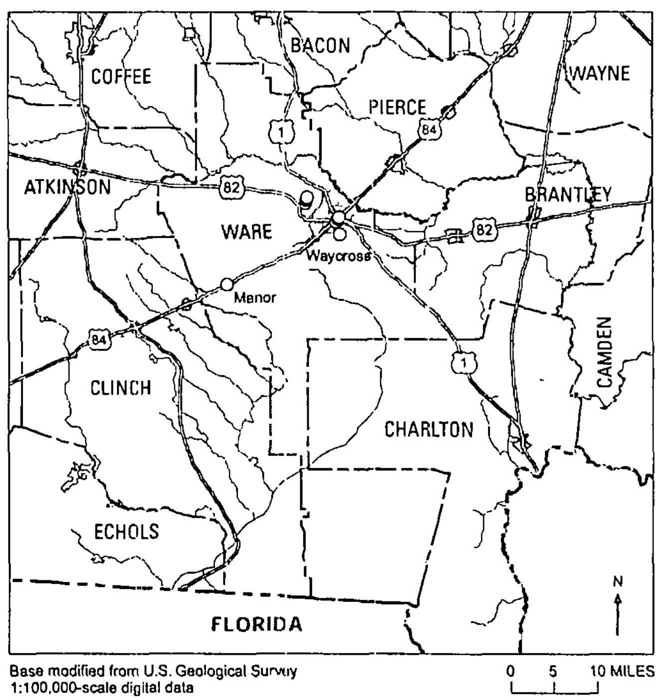
SIC	GW	SW
30-Rubber	0.59	0.00





Base modified from U.S. Geological Survey 1:100,000-scale digital data

WITHDRAWAL LOCATION FOR MAJOR USER
O Ground water

Reference 34

Table - Groundwater Supply Wells within a 4-mile Radius of the Seven-Out LLC Property at 901 Francis Street

Provider	ID #	Well #	Aquifer/ Depth	Radius (miles)	Population Served	Location	Blended	Contact #	Gallons Pumped (yr)
Satilla Regional Water & Sewer Authority	GA2990001	Monroe St. Well*	Floridan NA	2-3	9415	North of Site	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-4366 Derrell McDaniel	120,276,000
Satilla Regional Water & Sewer Authority	GA2990001	Off Nevada Avenue in Emerson Park Well*	Floridan 806'	2-3	Combined with above	Southwest of Site, 1285 Nevada Avenue	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-4366 Derrell McDaniel	61,728,000
Satilla Regional Water & Sewer Authority	GA2990051	Driggers Road Well*	Floridan 806'	>4	3305	Southeast of Site, 3955 Driggers Road	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-4366 Derrell McDaniel	88,380,000
Satilla Regional Water & Sewer Authority	GA2990051	Swamp Road Well*	Floridan 800'	1-2	Combined with above	South of Site, 2380 Swamp Road	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-4366 Derrell McDaniel	18,504,000
City of Waycross	GA2990002	Well #1*	Floridan 700'	¼-1/2	16900	Northeast of Site	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-2940 Gene Thomas	120,000
City of Waycross	GA2990002	Well #2*	Floridan 762'	¼-1/2	Combined with above	Northeast of Site	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-2940 Gene Thomas	109,500,000

Provider	ID #	Well #	Aquifer/ Depth	Radius (miles)	Population Served	Location	Blended	Contact #	Gallons Pumped (yr)
City of Waycross	GA2990003	Well #3	Floridan 773'	¼-1/2	Combined with above	Northeast of Site	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-2940 Gene Thomas	693,500,000
Waycross-Ware County Industrial Park	GA2990019	Well #1* Fulford Road	Floridan NA	>4	2500	Fulford Road, Northwest of Site	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-2940 Gene Thomas	96,725,000
Waycross - Ware County Industrial Park	GA2990019	Well #2* Harris Road	Floridan NA	3-4	Combined with Above	Harris Road, Northwest of Site	Yes with wells in Satilla Reg. W & S, City of Waycross, and Industrial Park	912/287-2940 Gene Thomas	63,875,000
Baptist Village	GA2990016	Linen Lane #1	Floridan 632'	3-4	313	Southwest of Site	Yes, with Linen Lane #2	912/283-2912 Mr. Sharpton	NA
Baptist Village	GA2990016	Linen Lane #2	Floridan 650'	3-4	Combined with Above	Southwest of Site	Yes, with Linen Lane #1	912/283-2912 Mr. Sharpton	NA
Resident	NA	Private Well	NA	2-3	NA	West of Site, 715 Village Lake Drive	No	912/283-6711	NA
Resident	NA	Private Well	NA	3-4	NA	Northwest of Site, 3124 Cherokee Street	No	NA	NA
Resident	NA	Private Well	NA	3-4	NA	Northwest of Site, 3146 Cherokee Street	No	912/285-1530 (disconnectee)	NA

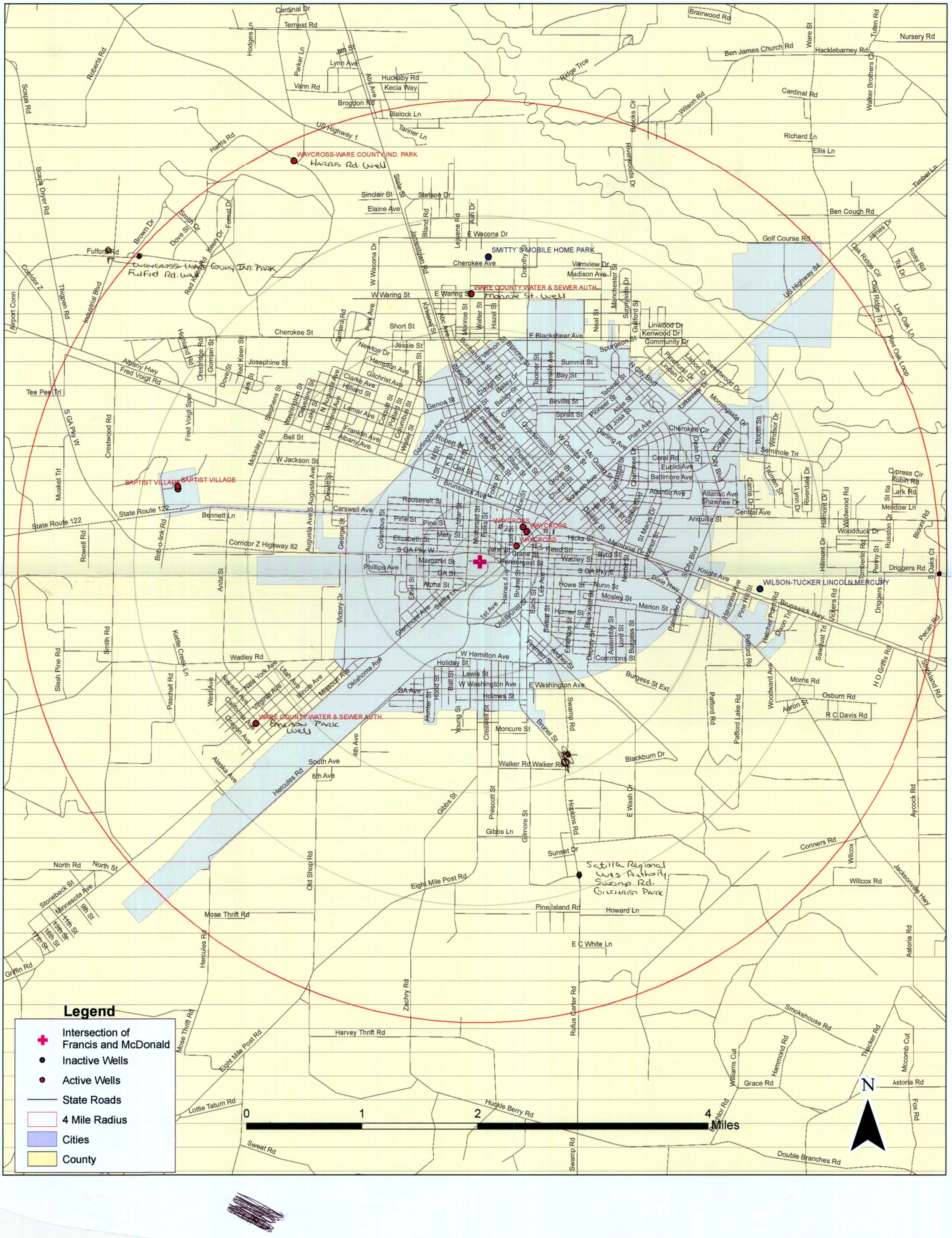
Provider	ID #	Well #	Aquifer/ Depth	Radius (miles)	Population Served	Location	Blended	Contact #	Gallons Pumped (yr)
Resident	NA	Private Well	Miocene? 280'	3-4	NA	Northwest of Site, 3150 Cherokee St.	No	912/285-2600	NA
Resident	NA	Private Well	Unknown	3-4	NA	Northwest of Site, 3148 Cherokee St.	No	912/283-3607	NA

Population Data from Census Data for 1990

Residents	NA	Private Wells	Unknown	0-1/4	0	Unknown	No	NA	NA
Residents	NA	Private Wells	Unknown	¼-1/2	2	Unknown	No	NA	NA
Residents	NA	Private Wells	Unknown	½-1	20	Unknown	No	NA	NA
Residents	NA	Private Wells	Unknown	1-2	271	Unknown	No	NA	NA
Residents	NA	Private Wells	Unknown	2-3	842	Unknown	No	NA	NA
Residents	NA	Private Wells	Unknown	3-4	895	Unknown	No	NA	NA

Reference Bo's 1990 Census Data, Telecommunications with Sharpton, McDaniel, Thomas, and DrinkingWater Program Files.

WARE GA2990000 MANOR 101 WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/13/1999
WARE GA2990001 SATILLA REGIONAL WATER & SEWER AUTH. 101 MONROE STREET WELL WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 11/01/2004
WARE GA2990001 SATILLA REGIONAL WATER & SEWER AUTH. 102 OFF NAVADA AVE- EMERSON PARK WELL WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 11/01/2004
WARE GA2990001 SATILLA REGIONAL WATER & SEWER AUTH. 103 OFF ALBANY AVE - WARESBORO WELL WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 11/01/2004
WARE GA2990001 SATILLA REGIONAL WATER & SEWER AUTH. 106 WAYCROSS WATER SYSTEM GA2990002 PURCHASE CONNECTION GROUNDWATER ACTIVE EMERGENCY/BACK-UP 04/30/2002
WARE GA2990002 WAYCROSS 101 WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/13/1999
WARE GA2990002 WAYCROSS 102 WELL #2 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/13/1999
WARE GA2990002 WAYCROSS 103 WELL #3 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/13/1999
WARE GA2990013 DNR-LAURA S. WALKER STATE PARK 101 LAURA WALKER RD WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/27/2004
WARE GA2990013 DNR-LAURA S. WALKER STATE PARK 102 LAURA WALKER RD-CAMPGROUND WELL WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/27/2004
WARE GA2990016 BAPTIST VILLAGE 101 LINEN LANE WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 06/22/2004
WARE GA2990016 BAPTIST VILLAGE 102 LINEN LANE WELL #2 WELL GROUNDWATER ACTIVE EMERGENCY/BACK-UP 06/22/2004
WARE GA2990019 WAYCROSS-WARE COUNTY IND. PARK 101 WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/13/1999
WARE GA2990019 WAYCROSS-WARE COUNTY IND. PARK 102 WELL #2 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/13/1999
WARE GA2990040 OKEFENOKEE SWAMP ASSOC. INC. 101 5700 OKEFENOKEE SWAMP PART RD WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 01/31/2005
WARE GA2990040 OKEFENOKEE SWAMP ASSOC. INC. 102 5700 OKEFENOKEE SWAMP PARK RD WELL #2 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 01/31/2005
WARE GA2990046 GA. LIONS CAMP FOR THE BLIND 101 WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/13/1999
WARE GA2990051 SATILLA REGIONAL WATER & SEWER AUTH-EAST 101 OFF DRIGGERS ROAD WELL WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 11/01/2004
WARE GA2990051 SATILLA REGIONAL WATER & SEWER AUTH-EAST 102 OFF SWAMP RD/GILCHRIST PARK WELL WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 11/01/2004
WARE GA2990051 SATILLA REGIONAL WATER & SEWER AUTH-EAST 103 WAYCROSS WATER SYSTEM GA2990002 PURCHASE CONNECTION GROUNDWATER ACTIVE EMERGENCY/BACK-UP 07/10/2002
WARE GA2990052 DNR-L S WALKER SP GOLF COURSE 101 LAURA WALKER RD WELL #1 WELL GROUNDWATER ACTIVE FULL TIME/REGULAR 10/27/2004

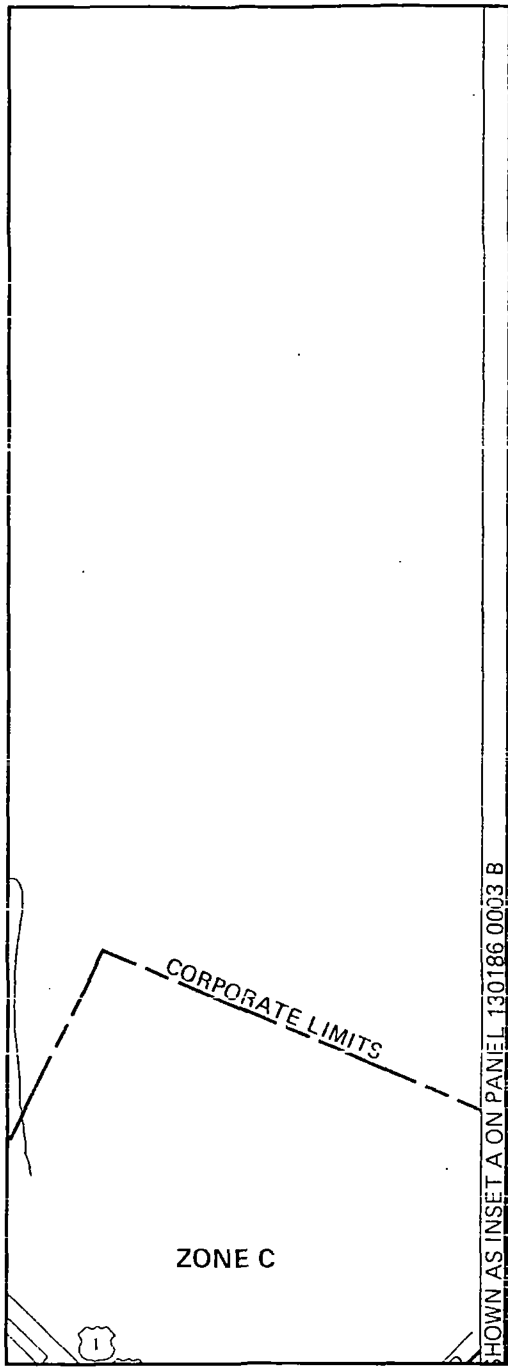


Satilla Regional
WGS Authority
Driggers Rd
Well

Reference 35

U.S.G.S. 7.5' Topographic Maps (1:24000) for Waycross West (1967, photorevised 1988), Waycross East (1967, photorevised 1988), Hoboken West (1967, photorevised 1988), Dixie (1971, photorevised 1988), and Blackshear West (1971, photorevised 1988) are included in Figure 3 in the Figures section of this report.

Reference 36



With Elevation In Feet**	
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7×
River Mile	• M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

N

APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

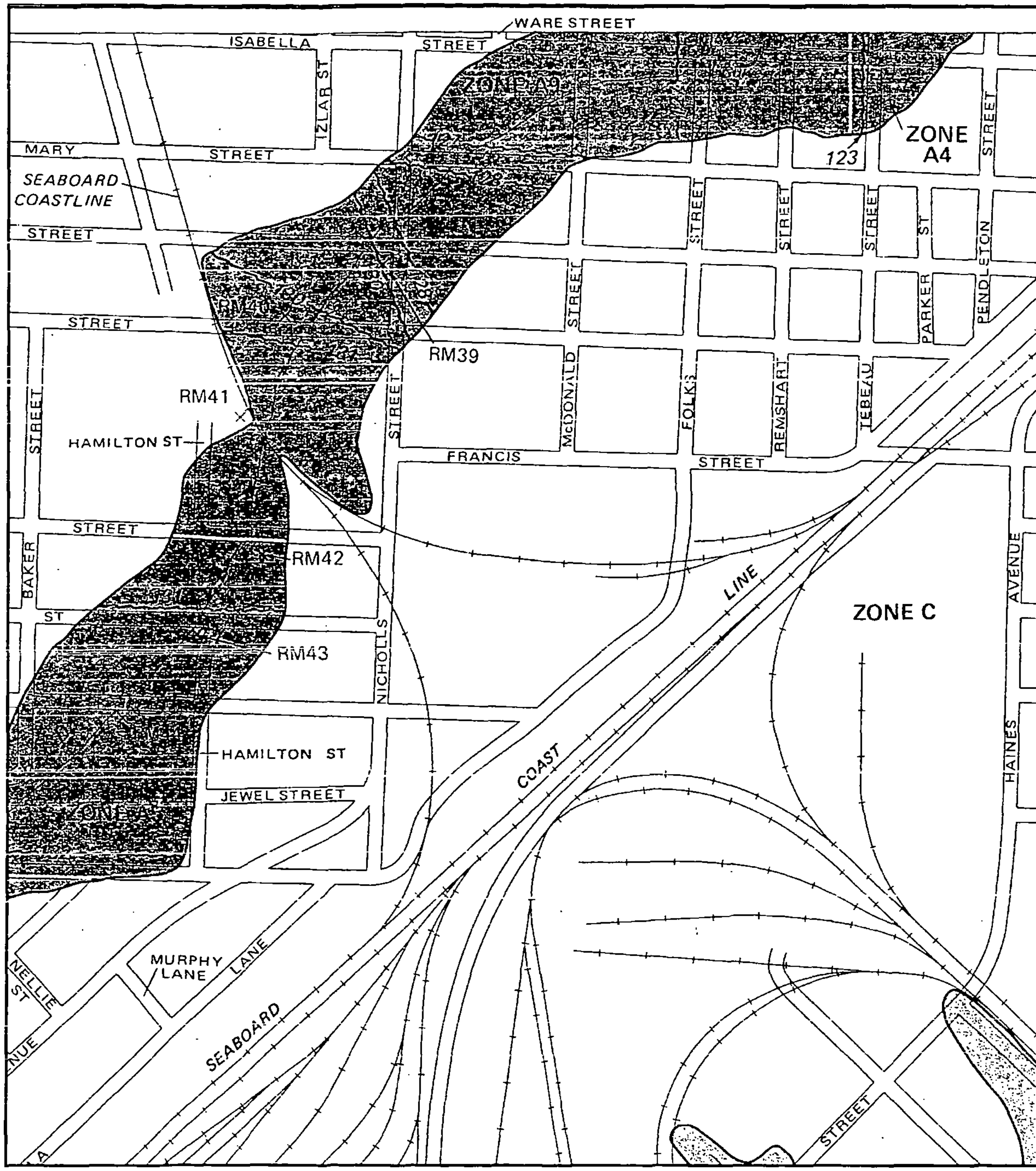
CITY OF
WAYCROSS, GEORGIA
WARE COUNTY

PANEL 3 OF 4
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
130186 0003 B

EFFECTIVE DATE:
AUGUST 3, 1981

federal emergency management agency
federal insurance administration



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
WAYCROSS, GEORGIA
WARE COUNTY

PANEL 3 OF 4
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
130186 0003 B

EFFECTIVE DATE:
AUGUST 3, 1981

federal emergency management agency
federal insurance administration

Reference 37

U.S.G.S. 7.5' Topographic Maps (1:24000) for Waycross West (1967, photorevised 1988), Waycross East (1967, photorevised 1988), Hoboken West (1967, photorevised 1988), Dixie (1971, photorevised 1988), and Blackshear West (1971, photorevised 1988) are included in Figure 7 in the Figures section of this report.

Reference 38

U.S.G.S. 7.5' Wetland Inventory Maps (1:24000) for Waycross West ( ), Waycross East ( ), Hoboken West ( ), Dixie ( ), and Blackshear West ( ) are included in Figure 8 in the Figures section of this report.

Reference 39

ter Resources

Data Category: Site Information | Geographic Area: Georgia | go

Site Map for Georgia

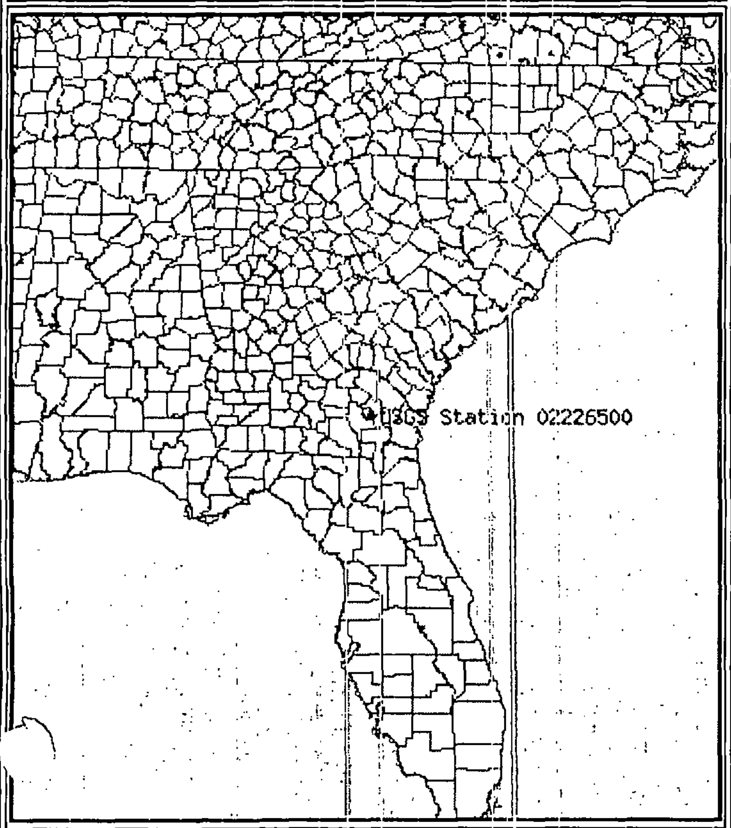
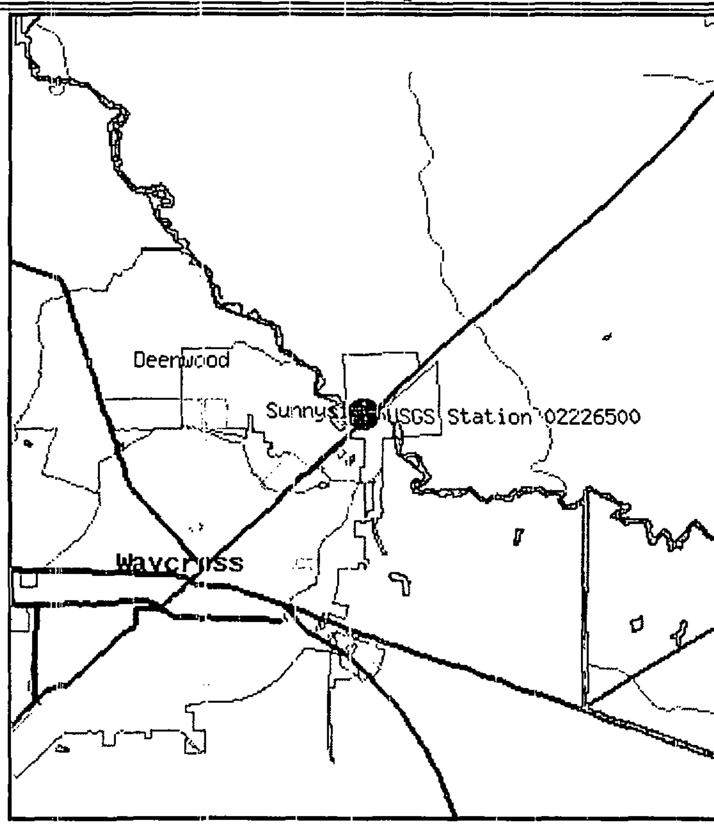
Times for Georgia stations are shown as Eastern Standard Time. If your clock is set to Eastern Daylight Savings Time, add one hour to the time shown on the Web page to compare to your clock time.

Additional information may be found on the USGS Water Resources of Georgia page, including low-flow statistics and flood-frequency information for selected stations.

USGS 02226500 SATILLA RIVER NEAR WAYCROSS, GA

Available data for this site site map GO

Ware County, Georgia
Hydrologic Unit Code 03070201
Latitude 31°14'17", Longitude 82°19'29" NAD27
Drainage area 1,200 square miles
Contributing drainage area 1,200 square miles
ge datum 66.43 feet above sea level NGVD29

Location of the site in Georgia.	Site map.
	

ZOOM IN 2X, 4X, 6X, 8X, or ZOOM OUT 2X, 4X, 6X, 8X.

Maps are generated by US Census Bureau TIGER Mapping Service.

Questions about data Georgia NWISWeb Data Inquiries
Feedback on this website Georgia NWISWeb Maintainer

Top
Explanation of terms

NWIS Site Inventory for Georgia: Site Map
http://waterdata.usgs.gov/ga/nwis/nwismap?

Retrieved on 2005-07-06 11:21:12 EDT
Department of the Interior, U.S. Geological Survey
USGS Water Resources of Georgia
Privacy Statement || Disclaimer || Accessibility || FOIA
1.01 0.74 va

ter Resources

Data Category: Surface Water Geographic Area: Georgia go

Calendar Year Streamflow Statistics for Georgia

Times for Georgia stations are shown as Eastern Standard Time. If your clock is set to Eastern Daylight Savings Time, add one hour to the time shown on the Web page to compare to your clock time.

Additional information may be found on the USGS Water Resources of Georgia page, including low-flow statistics and flood-frequency information for selected stations.

USGS 02226500 SATILLA RIVER NEAR WAYCROSS, GA

Available data for this site Surface-water: Annual streamflow statistics GO

Ware County, Georgia Hydrologic Unit Code 03070201 Latitude 31°14'17", Longitude 82°19'29" NAD27 Drainage area 1,200 square miles Contributing drainage area 1,200 square miles Gage datum 66.43 feet above sea level NGVD29	**Output formats** HTML table of all data Tab-separated data Reselect output format

Year	Annual mean streamflow, in ft^3/s	Year	Annual mean streamflow, in ft^3/s	Year	Annual mean streamflow, in ft^3/s	Year	Annual mean streamflow, in ft^3/s
1938	410	1955	200	1972	1,140	1988	748
1939	842	1956	502	1973	1,865	1989	282
1940	447	1957	729	1974	943	1990	581
1941	289	1958	1,224	1975	1,586	1991	2,298
1942	1,044	1959	1,368	1976	1,717	1992	1,466
1943	503	1960	1,266	1977	1,197	1993	1,048
1944	1,784	1961	947	1978	975	1994	1,635
1945	969	1962	578	1979	1,242	1995	1,061
1946	1,043	1963	798	1980	1,080	1996	333
1947	2,016	1964	2,589	1981	118	1997	1,394
1948	1,880	1965	1,320	1982	913	1998	1,639
1949	1,216	1966	1,269	1983	1,986	1999	166
1950	520	1967	745	1984	1,841	2000	256
1951	691	1968	216	1985	602	2001	423

1952	464	**1969**	1,019	**1986**	1,316	**2002**	228
1953	1,100	**1970**	1,242	**1987**	1,412	**2003**	1,737
1954	232	**1971**	1,227				

Questions about data Georgia NWISWeb Data Inquiries
Feedback on this website Georgia NWISWeb Maintainer

Top
Explanation of terms

Surface Water data for Georgia: Calendar Year Streamflow Statistics
http://waterdata.usgs.gov/ga/nwis/annual/calendar_year?

Reference 40

E. WILLIAMS

AVERAGE ANNUAL RAINFALL AND RUNOFF IN GEORGIA, 1941-70

ROBERT F. CARTER

AND

HAROLD R. STILES

Prepared as part of the
Accelerated Ground-Water Program
in cooperation with the
Department of the Interior
United States Geological Survey

Department of Natural Resources
Joe D. Tanner, Commissioner

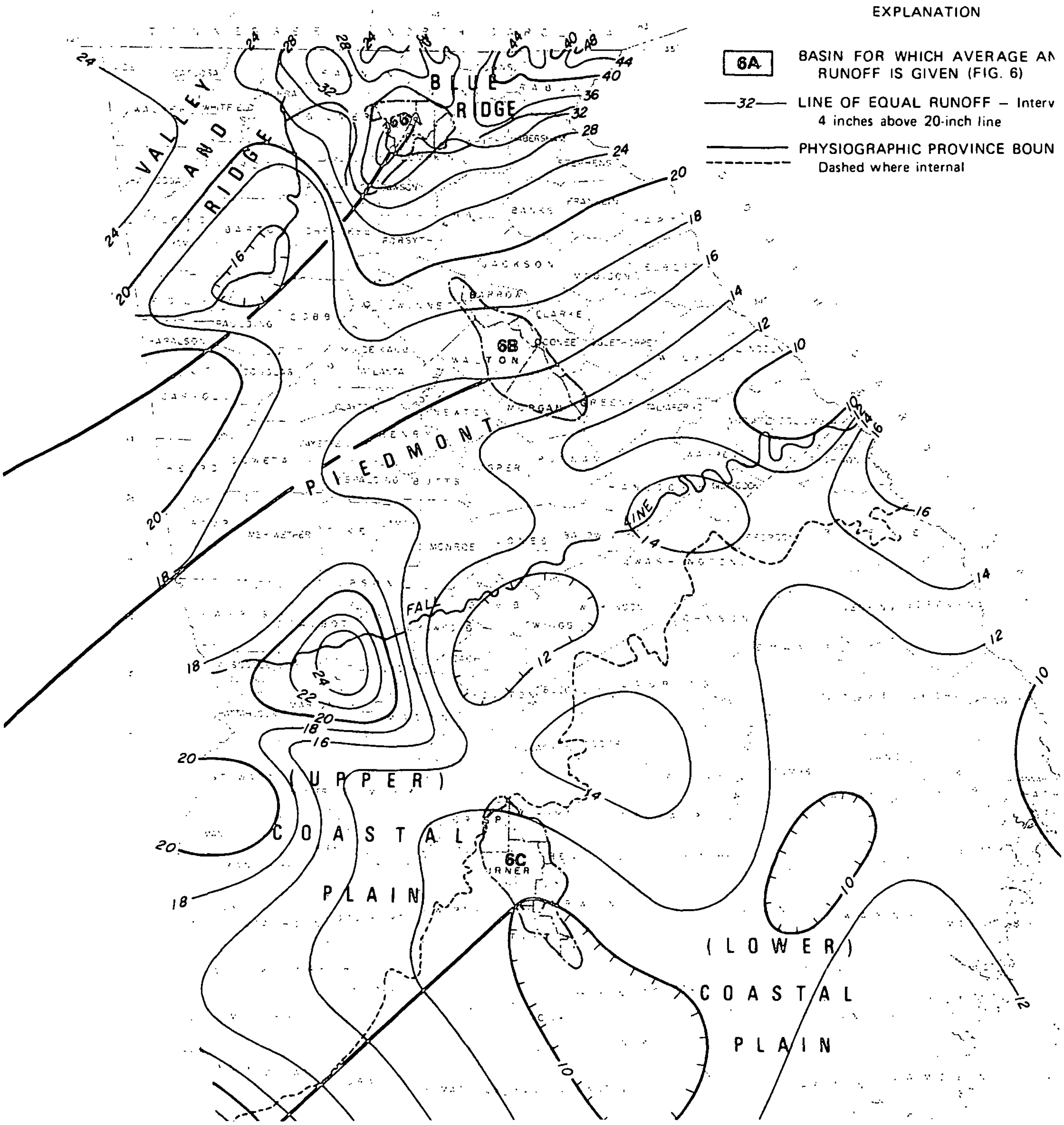
Environmental Protection Division
J. Leonard Ledbetter

Georgia Geologic Survey
William H. McLemore

ATLANTA

1983

HYDROLOGIC ATLAS 9


EXPLANATION
6A BASIN FOR WHICH AVERAGE AN
RUNOFF IS GIVEN (FIG. 6)
32 LINE OF EQUAL RUNOFF – Interv
4 inches above 20-inch line
PHYSIOGRAPHIC PROVINCE BOUN
Dashed where internal
VALLEY AND RIDGE
BLUE RIDGE
PIEDMONT
FALL LINE
(UPPER) COASTAL PLAIN
(LOWER) COASTAL PLAIN
6A
6B
6C
FORSYTH
JACKSON
BARROW
CLARKE
OCONEE
OGLETHORPE
WALTON
MORGAN
GREENE
COBB
DE KALB
ATLANTA
PAULDING
HARALSON
DOUGLAS
CARROLL
HENRY
SPALDING
BUTTS
MERIWETHER
MONROE
JONES
WASHINGTON
TWIGGS
STEPHENS
BANKS
FRANKLIN
DAWSON
WHITFIELD
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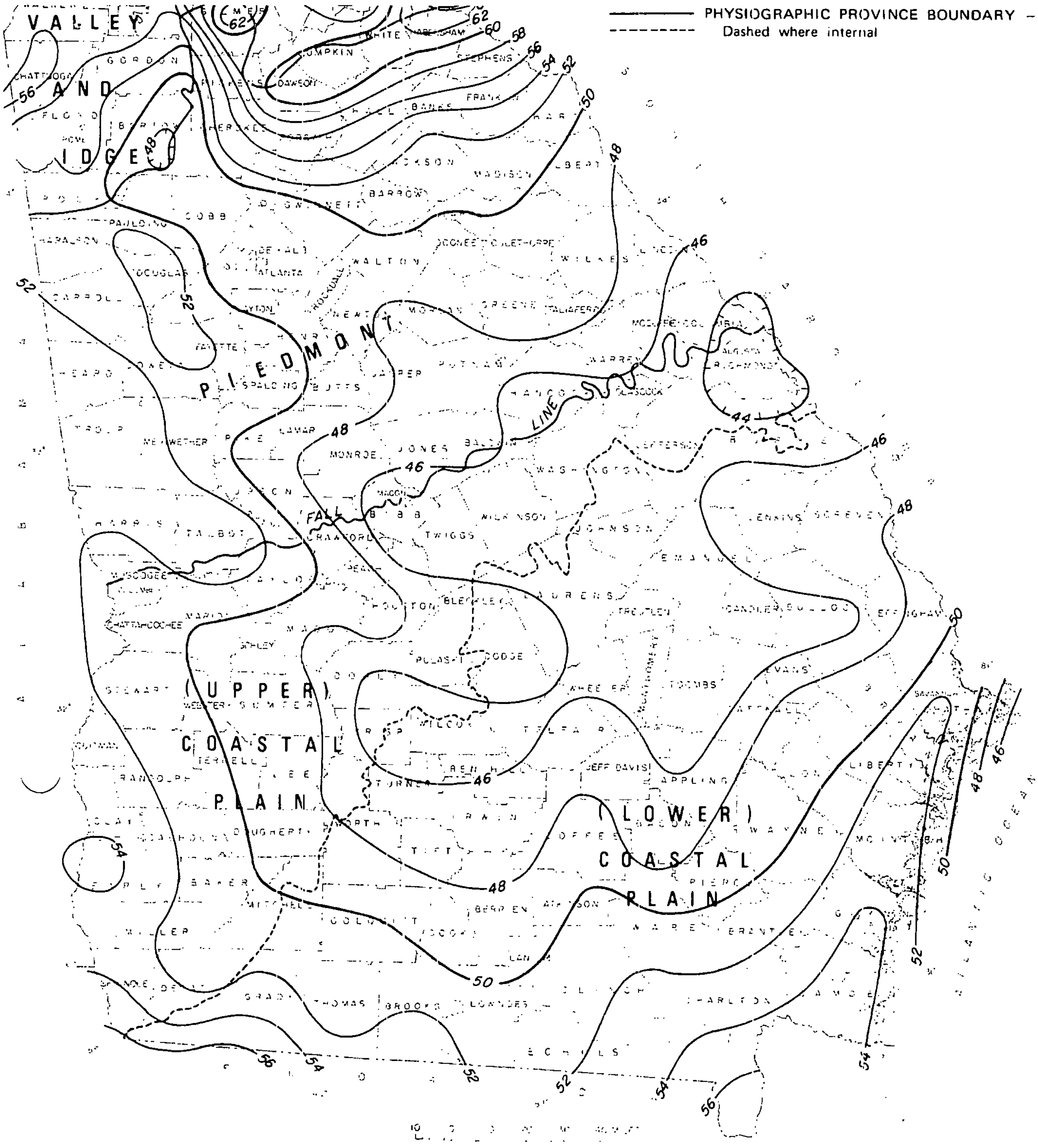


Figure 1.—Average annual rainfall in Georgia, 1941-70, and physiographic provinces.

The State received an average of 50 inches of rainfall per year, ich varied locally from less than 44 inches to more than 76 inches, l also varied greatly from year to year.

The map was prepared from data furnished by the National ither Service and was reviewed by that agency. Rainfall data are ected at specific points, well distributed throughout the State, and vide point samples of the amount of rainfall that occurred. From these samples, data interpolations and extrapolations were made and approximate lines of equal value were drawn. This process is similar to the method of compiling topographic maps using areally distributed points of known land elevation. The map of average annual rainfall shown here is a reasonable representation of average annual rainfall for the State during the indicated time period, but caution should be used in interpolating between lines of equal value on the map, particularly in mountainous areas.

Reference 41

Protected Plants of Georgia

AN INFORMATION MANUAL ON PLANTS DESIGNATED BY THE STATE OF GEORGIA AS ENDANGERED, THREATENED, RARE, OR UNUSUAL

Thomas S. Patrick
James R. Allison
Gregory A. Krakow

1995

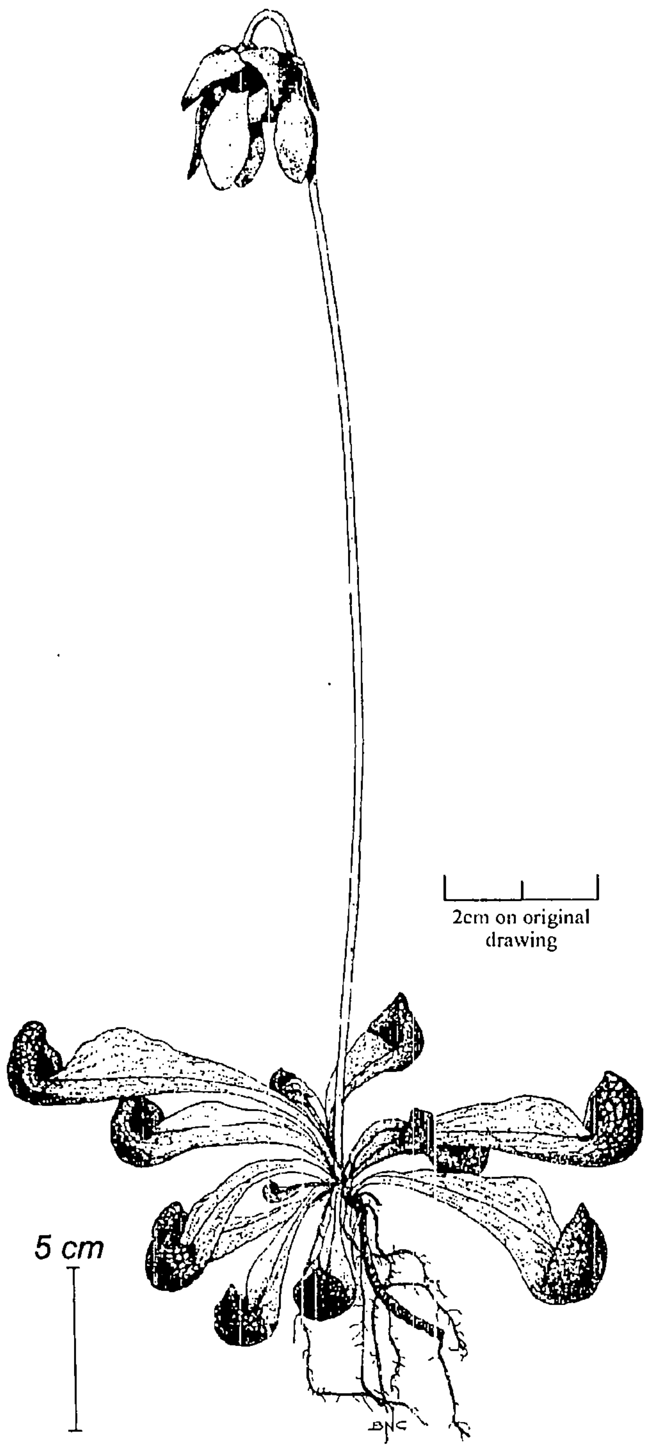
Georgia Department of Natural Resources
Lonice C. Barrett, Commissioner
Wildlife Resources Division
David Waller, Director
Georgia Natural Heritage Program
John R. Bozeman, Program Manager

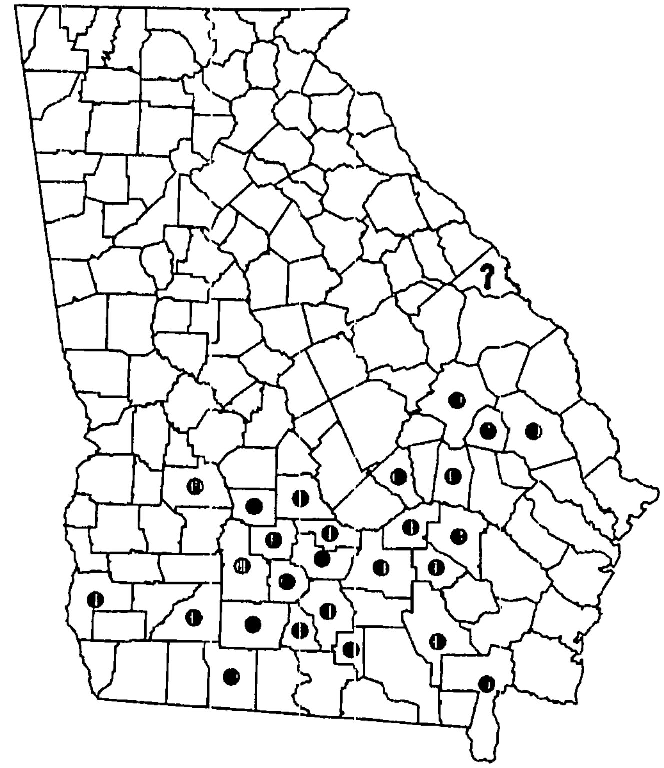
Partial funding for this publication was provided through the Forest Stewardship Program under Title XII, Subtitle A, Section 1215 of the Food, Agriculture, Conservation and Trade Act of 1990, in cooperation with the Georgia Forestry Commission.

Additional funding was made available through Section 6 of the Endangered Species Act of 1973, as part of a grant in federal aid from the U.S. Fish and Wildlife Service.

Parrot Pitcherplant

Pitcherplant Family, SARRACENIACEAE





LEGAL STATUS:
State: THREATENED
Federal: None

SYNONYMY: None in current usage.

RANGE: Coastal Plain of northeastern Florida and southern Georgia, west to southeastern Louisiana. Recorded from 27 counties in Georgia, including an ambiguous report from the Augusta area (see Remarks), perhaps from Richmond County (see map).

ILLUSTRATION: Plant habit, with reclining leaves, 0.4x. Source: McDaniel (1971), drawn by Barbara Culbertson and used with permission.

DESCRIPTION: Perennial herb. This plant is one of the smaller members of this genus, often overlooked. The hollow leaves (pitchers) recline on the ground, in a basal rosette. They are 9-28 cm long, 1.0-1.3 cm wide at the orifice, green at the base, red-veined toward the top, broadest and prominently winged in the upper half. The hood is rounded into a hollow chamber; both it and the adjoining leaf area have translucent "windows." The flowers appear with the leaves, and are nodding and solitary on long (to about 35 cm), leafless stalks that rise well above the leaves. The five sepals are green and maroon, 1.5-2.5 cm long, and persist at base of fruit. The five petals are maroon, 2.0-4.5 cm in diameter, broadest near the apex, and quickly fall off. A distinctive feature of the pitcherplant flower is the umbrella-shaped style (style-disk), which is 1.8-2.6 cm in diameter in this species. The fruit is a globose capsule about 1 cm in diameter, with numerous seeds. **Flowering period**: March to May; **fruiting period**: June to July, or later. **Best search time**: during flowering, since leaves are usually hidden in vegetation.

HABITAT: Found in acidic soils of open bogs, wet savannas, and low areas in pine flatwoods.

SPECIAL IDENTIFICATION FEATURES: The mature leaves or pitchers are reclined, prominently winged, with translucent "windows" near the apex, and with hoods rounded. The petal color is maroon.

MANAGEMENT RECOMMENDATIONS: Avoid drainage of site. Control encroachment of woody vegetation through prescribed burning. Hand thinning in the vicinity of the plants, if done carefully, may be beneficial to this light-loving plant. Of horticultural interest: protect from removal by irresponsible persons.

REMARKS: André Michaux described this species in 1803. Typical of the collections of that era, his specimen label has a general statement of the known range, "from the city of Augusta, Georgia, to Florida," rather than the precise collection site. Both the scientific and common names of this species refer to a fancied resemblance of the pitcher, when viewed in profile, to a parrot's head. Unlike those of the hooded pitcherplant (*Sarracenia minor*), the pitchers of this species are decorated with "windows" over the whole of the (head-like) hood. In view of the supposed function of the windows in the capture of prey, as described for *S. minor*, this may be an adaptation related to the near-horizontal position that the pitchers assume in this species. Unlike most of its kin, *S. psittacina* is often found in areas that are subject to periodic flooding, and its pitchers are specially modified for capture of aquatic(!) prey. *Sarracenia psittacina* has sustained significant habitat loss due to fire suppression or draining of its habitat. Like the other pitcherplants, it is vulnerable to excessive digging by nurserymen and gardeners.

SELECTED REFERENCES

Barker, N. G. and G. B. Williamson. 1988. Effects of a winter fire on *Sarracenia alata* and *S. psittacina*. American Journal of Botany 75:138-143.

Duncan, W. H. and L. E. Foote. 1975. Wildflowers of the Southeastern United States. University of Georgia Press, Athens. 296 pp.

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and Wetland Plants of Southeastern United States. Volume 2. Dicotyledons. University of Georgia Press, Athens. 933 pp.

McDaniel, S. 1971. The genus *Sarracenia* (Sarraceniaceae). Bulletin Number 9. Tall Timbers Research Station, Tallahassee, Florida. 36 pp.

Pietropaolo, J. and P. Pietropaolo. 1986. Carnivorous Plants of the World. Timber Press, Portland, Oregon. 206 pp.

Rickett, H. W. 1966. Wild Flowers of the United States. Volume 2. The Southeastern States. McGraw-Hill, New York. 688 pp.

Schnell, D. E. 1976. Carnivorous Plants of the United States and Canada. John F. Blair, Winston-Salem, North Carolina. 125 pp.

Slack, A. 1979. Carnivorous Plants. The Massachusetts Institute of Technology Press, Cambridge. 240 pp.

Reference 42

Locations of Special Concern Animals, Plants and Natural Communities by Quarter Quad Names Starting with (W)

"US" indicates species with federal status (Protected, Candidate or Partial Status). Species that are federally protected in Georgia are also state protected.
"GA" indicates Georgia protected species.

Find details for the species below on our special concern lists for animals and plants. Date of information - 10/22/2004

WADLEY, GA (SE)

GA · *Sarracenia flava* Yellow Flytrap

WALESKA, GA (NE)

· *Etheostoma rupestre* Rock Darter
US · *Etheostoma scotti* Cherokee Darter
· *Macrhybopsis sp. 1*
· *Phenacobius catostomus* Riffle Minnow

WALESKA, GA (NW)

· *Etheostoma rupestre* Rock Darter
US · *Etheostoma scotti* Cherokee Darter
· *Lygodium palmatum* Climbing Fern
GA · *Lysimachia fraseri* Fraser's Loosestrife
· *Macrhybopsis sp. 1*
· *Phenacobius catostomus* Riffle Minnow

WALESKA, GA (SE)

· *Etheostoma rupestre* Rock Darter
US · *Etheostoma scotti* Cherokee Darter
· *Ichthyomyzon gagei* Southern Brook Lamprey
· *Macrhybopsis sp. 1*
· *Phenacobius catostomus* Riffle Minnow
GA · *Xerophyllum asphodeloides* Eastern Turkeybeard

WALESKA, GA (SW)

· *Etheostoma coosae* Coosa Darter
· *Etheostoma rupestre* Rock Darter
US · *Etheostoma scotti* Cherokee Darter
· *Ichthyomyzon gagei* Southern Brook Lamprey

GA · *Clemmys guttata* Spotted Turtle
US · *Gopherus polyphemus* Gopher Tortoise
· *Quercus chapmanii* Chapman Oak
· *Sideroxylon sp. 1* Ohoopee Bumelia

WAYCROSS EAST, GA (NW)

GA · *Clemmys guttata* Spotted Turtle
US · *Gopherus polyphemus* Gopher Tortoise
· *Quercus chapmanii* Chapman Oak
GA · *Sarracenia psittacina* Parrot Pitcherplant
· *Scutellaria arenicola* Sandhill Skullcap
· *Sideroxylon sp. 1* Ohoopee Bumelia

WAYCROSS SE, GA (NE)

US · *Ambystoma cingulatum* Flatwoods Salamander
GA · *Epidendrum conopseum* Green-fly Orchid
GA · *Neofiber alleni* Round-tailed Muskrat
US · *Picoides borealis* Red-cockaded Woodpecker
GA · *Sarracenia minor* Hooded Pitcherplant
· *Scirpus etuberculatus* Canby's Club-rush

WAYCROSS SE, GA (NW)

GA · *Neofiber alleni* Round-tailed Muskrat
US · *Picoides borealis* Red-cockaded Woodpecker

WAYCROSS SE, GA (SE)

US · *Ambystoma cingulatum* Flatwoods Salamander
GA · *Epidendrum conopseum* Green-fly Orchid
GA · *Neofiber alleni* Round-tailed Muskrat
· *Nerodia floridana* Florida Green Water Snake
US · *Picoides borealis* Red-cockaded Woodpecker
GA · *Sarracenia minor* Hooded Pitcherplant
· *Scirpus etuberculatus* Canby's Club-rush

WAYCROSS SE, GA (SW)

GA · *Neofiber alleni* Round-tailed Muskrat

Endangered, Threatened and Special Concern Plants and Animals of the NW Quadrant of the Waycross East 7.5' Topographical Map

Scientific Name	Common Name	Protective Status	Habitat in Georgia	Photo
Clemmys guttata	Spotted Turtle	GA Unusual Species	Heavily vegetated swamps, marshes, bogs, and small ponds, nest and possibly hibernate in surrounding uplands	
Gopherus polyphemus	Gopher Tortoise	US Partial Status/listed as threatened Georgia Threatened	Sandhills, dry hammocks; longleaf pine-turkey oak woods; old fields	
Quercus chapmanii	Chapman Oak	GA Special Concern	Sandridges, dunes, oak-pine scrub	
Sarracenia psittacina	Parrot Pitcherplant	GA Threatened	Wet savannas, pitcherplant bogs	
Scutellaria arenicola	Sandhill Skullcap	GA Special Concern	Sandy scrub	

Scientific Name	Common Name	Protective Status	Habitat in Georgia	Photo
Sideroxylon sp. 1	Ohoopee Burnelia	GA Special Concern	Dry longleaf pine woods with oak understory; often hidden in wiregrass	

References

Reference 43

RECORD OF TELEPHONIC CONVERSATION
HAZARDOUS WASTE MANAGEMENT PROGRAM

SEVEN OUT, 26
1.8
Dur. VOL. 1A

DATE: June 15, 2005
TIME: 9:30 am

FILE: Seven Out LLC

SPOKE WITH: Ms. Shirley Carter
TITLE: Employee, Winges Bait and Tackle.
ADDRESS: 427 Memorial Drive
CITY: Waycross
STATE/ZIP: GA 31501

TELEPHONE NUMBER:
912/283-9400 (Store)

SUBJECT: Fisheries.

SUMMARY OF CALL:
Called Winges Bait and Tackle Store to identify which streams in the area are fished. The store is approximately 1600 feet from the City Drainage Canal. Ms. Shirley Carter stated that children sometimes fish in the City Drainage Canal, however most fishing is done in the Satilla River. This information is the same as information given by another employee of the store during the Site Investigation.

ACTION REQUIRED:

None

SIGNATURE:

FOLLOW-UP RESPONSES/ADDITIONAL COMMENTS:

SIGNATURE:

Reference 44

Issued April 15, 1907.

U. S. DEPARTMENT OF AGRICULTURE,

BUREAU OF SOILS—MILTON WHITNEY, Chief.

(Ware County)

SOIL SURVEY OF THE WAYCROSS AREA, GEORGIA.

BY

M. EARL CARR AND W. E. THARP.

[Advance Sheets—Field Operations of the Bureau of Soils, 1906.]

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1907.

the second division of the Atlantic Coast Line, a large steam-pressure turpentine extracting plant, and several smaller enterprises. There is now (April, 1906) in process of construction the repair shops of all of the lines of the Atlantic Coast Line south of Savannah. It is said that these shops will be the largest in the South, costing about $500,000, and will employ from 1,500 to 2,000 men. Manor, Millwood, and Waresboro are towns of a few hundred population, located in some of the best farming sections of the county, and are important country trading points. Bickley, in the northwestern part of the area, the only post-office not on the railroad, is located in a good farming section. Fairfax and Beach are sawmill towns. At these and other points both in the interior and on the railroads are located numerous turpentine stills. The operation of these stills, the cutting of railroad cross-ties, firewood, etc., are extensively carried on.

Ample transportation facilities are afforded for all parts of the area. The Atlantic Coast Line has lines to Savannah and the markets of the North, to the coast at Brunswick and Jacksonville, to the interior of the State at Albany, and to Montgomery and the West and Florida west coast points by the same line as far as Dupont. On all of these lines fast and efficient schedules are maintained, especially over the main line to Savannah and the North. As all these lines belong to the same system there is an utter lack of competition. The northern part of the area is traversed by a branch of the Atlanta, Birmingham and Atlantic Railroad, which makes connections at Nichols for Brunswick, Atlanta, and Birmingham.

The county roads are far above the average for a "piney-woods" section. In the last few years the county officials have taken advantage of a State law allowing them to employ the county convicts for public-road improvements. Already many of the main roads have been straightened, cleared, and graded, and many of the larger streams bridged. This road-building work is still in progress, and it is likely that many of the roads mapped in this survey will be changed as the work progresses. These good roads enable the farmer to reach the market at Waycross easily and also to haul his produce to railroad points for shipment to the coast or to the northern cities.

CLIMATE.

The climate of Ware County is similar to that of southern South Carolina, southeastern Georgia, and northeastern Florida. The winters are mild and open, snow rarely falling, and the summers are long and hot. Farm work can be carried on during the whole of the year, and no shelter for stock is necessary.

The following table gives the normal monthly and annual temperature and precipitation as recorded by the Weather Bureau station at Waycross.

Normal monthly and annual temperature and precipitation.

Month.	Waycross. Temperature.	Waycross. Precipitation.	Month.	Waycross. Temperature.	Waycross. Precipitation.
	°F.	*Inches.*		*°F.*	*Inches.*
January	50.0	3.17	August	81.5	6.16
February	52.6	3.82	September	76.7	4.85
March	59.4	4.44	October	68.1	2.93
April	65.9	2.80	November	57.9	1.40
May	74.8	2.75	December	51.5	3.82
June	80.3	5.14			
July	82.2	5.45	Year	66.7	46.73

From this table it is readily seen that the rainfall is ample and is evenly distributed through the year, the greatest precipitation occurring during the summer months or growing season. The summer is practically eight months long, there being five months of excessively hot weather. July is the hottest month, with a normal temperature of 82.2° F., while May, June, August, and September are only a few degrees cooler. The extreme heat is tempered to a large extent by the movements of air currents, and oppressive nights are almost unknown. The winter months are not cold, although the humidity makes the cold more penetrating than the same temperature at higher altitudes. January, the coldest month, has a normal temperature of 50° F. The growing of winter truck crops, such as lettuce, radishes, onions, etc., can be carried on successfully during the winter.

The following table gives the dates of the first killing frosts in fall and the last in spring:

Dates of first and last killing frost.

Year.	Waycross. Last in spring.	Waycross. First in fall.	Year.	Waycross. Last in spring.	Waycross. First in fall.
1889	Mar. 9	....	1898	Apr. 8	....
1900	Mar. 4	Nov. 10	1903	Feb. 19	Nov. 19
1901	Mar. 17	Nov. 17	1904	Feb. 14	Nov. 15
1902	Mar. 20	Nov. 28	Average	Mar. 9	Nov. 18

From this table it is seen that killing frosts are likely to occur during four months of the year, from the middle of November to the middle of March. This period is very frequently shortened in the spring from ten to forty days, and only once in the last seven years has it been lengthened. The earliest frost occurring in the fall was on November 10, 1900, the latest in the spring was on April 8, 1898. The average length of the growing season for tender vegeta-

These soils are derived from the Columbian and the Lafayette formations. The thickness of the Columbian formation is variable, but it is rather thin and superficial as a whole, since the Lafayette is exposed in many cuts only a little beneath the surface. The unconsolidated material of these two formations taken together is of considerable thickness. A well at Waycross passed through 333 feet of unconsolidated Columbian, Lafayette, and older deposits, at which depth a cherty limestone rock, probably the Vicksburg-Jackson, was encountered. It is believed, however, that the depth of these formations is considerably less in the northern part of the area.

The Norfolk soils are the result of the establishment of better drainage and the consequent greater erosion. The two sandy loams of this series are the results of erosive agencies cutting through the superficial Columbian sands and the commingling of the materials of both the Columbian and Lafayette formations. The Norfolk soils are the trucking soils of the Atlantic coast and are widely distributed. The soils of the Portsmouth series are composed of the Columbian sands, with scarcely any modification, except what has resulted through the accumulation of organic matter. Drainage has not become well established, and the consequent accumulation of decaying vegetation has made the surface soil dark colored. These soils are of wide extent and usually but little cultivated. Swamp represents a still more imperfect condition of drainage and a consequent greater accumulation of organic matter in various stages of decomposition. Sandhill is quite likely wash material deposited at a time when the river was at a considerably higher base level than now, while Meadow is the present river bottom and overflow land. In addition to the fact that they are derived from two distinct though somewhat similar geological formations, the soils of the Waycross area are separated into two series, because of the difference in drainage conditions and of their different value for agriculture. Their separation into types just pointed out depends upon differences in texture. These two series of soils occur throughout the greater part of the Atlantic and Gulf coastal plains.

NORFOLK SAND.

The surface soil of the Norfolk sand as it occurs in this area is a gray or brown medium to coarse sand, with a depth of about 7 inches. It is almost always loose and incoherent, and a good tilth is easily secured. The subsoil from 7 to 36 inches is a loose incoherent yellow sand, usually coarser and lighter in texture than the soil. The color is sometimes brown, and whether brown or yellow is often mottled with red in its lower depths. The structure is generally more open than that of the soil—the latter showing the binding effect of the accumulation of small quantities of organic matter—and offers little resistance to the movement of the ground water. In both soil and

subsoil there is usually a noticeable quantity of fine quartz gravel and very coarse sand, which are left on the surface when the finer particles are washed away by heavy rains, and make the soil appear coarser than it really is. This coarse material is either pink or white in color and the particles are angular in shape. In many places where this soil borders on the sandy loam and also in some of the isolated areas the subsoil becomes slightly sticky at 36 inches, a sandy clay being found at no great depth below. In other places the whole section is a loose sand to a considerable depth. That body of Norfolk sand mapped in the southeastern part of the area differs from the typical section in that there is developed in the subsoil the brown crust characteristic of the Portsmouth fine sand.

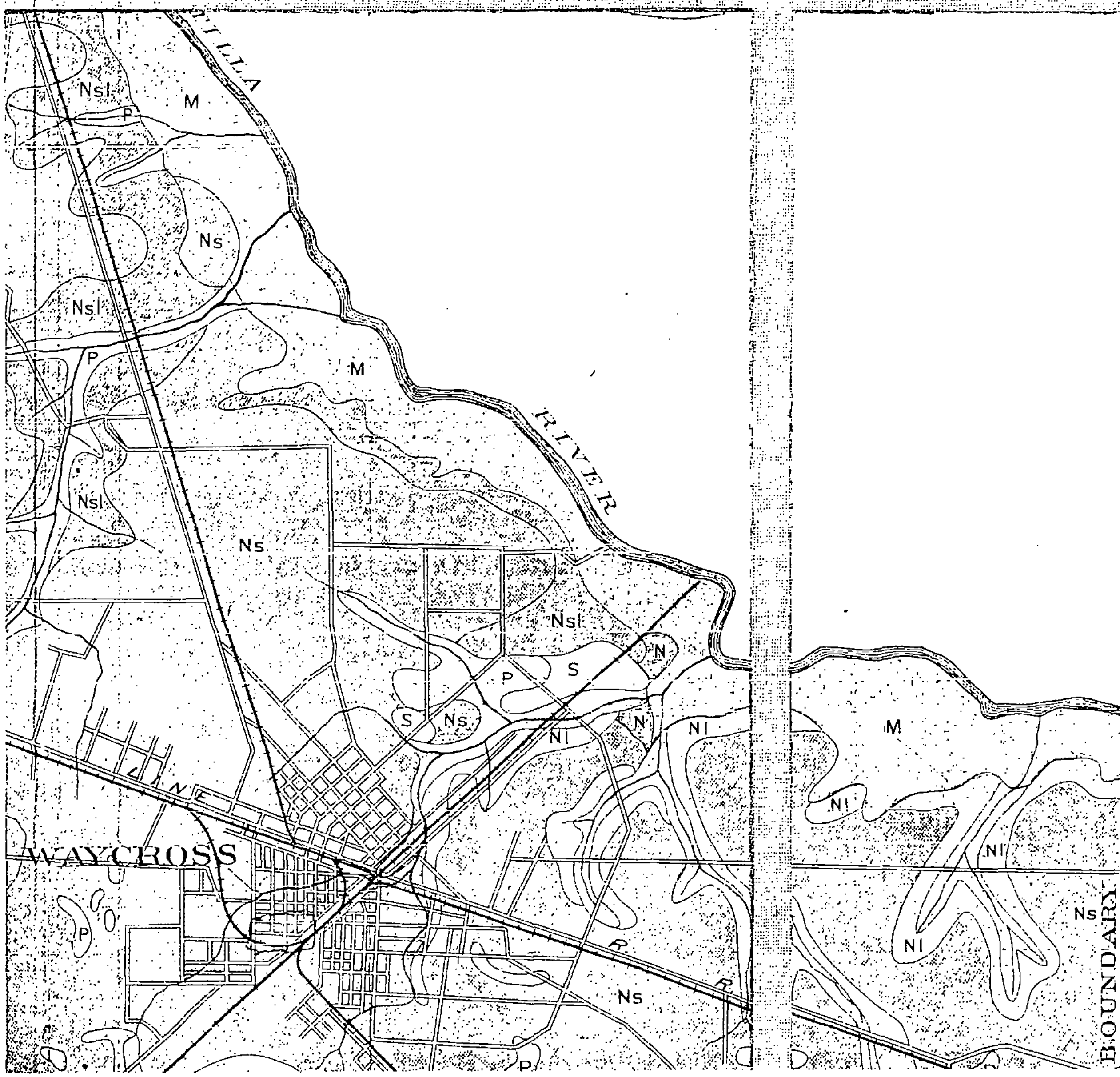
The largest areas of the Norfolk sand occur in irregular shaped bodies along the river and its tributaries, and are associated with the Norfolk sandy loam on the one side and the Portsmouth fine sand on the other. There are also several isolated bodies located southwest of Waresboro, along the old stage road. The isolated areas are almost level and slightly higher than the surrounding country. The topography of those areas lying along the stream courses is almost level to slightly rolling. The topographic position insures adequate drainage, and this with the open texture and structure of the soil and subsoil makes the Norfolk sand a warm, early soil, and one susceptible to drought. On the level areas of the type skillful management in the way of drainage would insure a better control of the moisture conditions, and render it possible to maintain a fair moisture content until late in the season.

The isolated areas owe their origin directly to the deposition of the coarser materials in local areas at the time of the laying down of the surface materials whose weathering gives rise to the soils of the area. The remainder of the type has been developed largely by erosion and the establishment of better drainage conditions.

The native vegetation originally consisted of long-leaf yellow pine with some oaks, with a thin sod of wire grass and an underbrush of palmetto and gall-berry bushes.

The Norfolk sand is peculiarly adapted to the growing of early truck crops rather than the general farm crops. Such crops as lettuce, radishes, peas, beans, early Irish potatoes, cantaloupes, watermelons, strawberries, etc., should do well and prove profitable with good care and judicious fertilization. In fact any crop which must be liberally fertilized and forced to an early maturity would do well on this soil.[a]

[a] Large samples of this soil from the neighborhoods of Waycross, Braganza, and Walter-town were the subject of a study by the wire-basket method to determine the local manurial requirements of this type of soil. Two of the samples were collected from fields that had been cleared for about sixty years, one of them, although at present idle, had been for many



Sandhill

M
Meadow

Sw
Swamp

APPENDIX C

Site: SEVEN OUT, LLC
Break: 1.8
Other: VOL. IA

1

APPENDIX A

OMB Approval Number: 2050-0095
Approved for Use Through: 1/92

PA Scoresheets

Site Name: SEVEN OUT LLC TANK
CERCLIS ID No.: GAN000407811
Street Address: 901 FRANCIS ST.
City/State/Zip: WAYCROSS, GA 31501

Investigator: BRETT BLACKWELDER
Agency/Organization: GA-DNR-EPD
Street Address: 2 MLK JR. DRIVE, SE
City/State/Zip: ATLANTA, GA 30334
Date:

INSTRUCTIONS FOR SCORESHEETS

Introduction

This scoresheets package functions as a self-contained workbook providing all of the basic tools to apply collected data and calculate a PA score. Note that a computerized scoring tool, "PA-Score," is also available from EPA (Office of Solid Waste and Emergency Response, Directive 9345.1-11). The scoresheets provide space to:

- Record information collected during the PA
- Indicate references to support information
- Select and assign values ("scores") for factors
- Calculate pathway scores
- Calculate the site score

Do not enter values or scores in shaded areas of the scoresheets. You are encouraged to write notes on the scoresheets and especially on the Criteria Lists. On scoresheets with a reference column, indicate a number corresponding to attached sources of information or pages containing rationale for hypotheses; attach to the scoresheets a numbered list of these references. Evaluate all four pathways. Complete all Criteria Lists, scoresheets, and tables. Show calculations, as appropriate. If scoresheets are photocopy reproduced, copy and submit the numbered pages (right-side pages) only.

GENERAL INFORMATION

Site Description and Operational History: Briefly describe the site and its operating history. Provide the site name, owner/operator, type of facility and operations, size of property, active or inactive status, and years of waste generation. Summarize waste treatment, storage, or disposal activities that have or may have occurred at the site; note also if these activities are documented or alleged. Identify probable source types and prior spills. Summarize highlights of previous investigations.

Probable Substances of Concern: List hazardous substances that have or may have been stored, handled, or disposed at the site, based on your knowledge of site operations. Identify the sources to which the substances may be related. Summarize any existing analytical data concerning hazardous substances detected onsite, in releases from the site, or at targets.

GENERAL INFORMATION

Site Description and Operational History:

Upon inspection of the site on April 7-8, 2005 it was apparent that the site is no longer in operation (Reference 4). Property records obtained from the Ware County Assessors Office website indicate the site consists of approximately 2 acres (Reference 5). The site includes a building, the waste treatment area or tank farm, and paved parking/loading areas. Located at 901 Francis Street is the building Seven Out LLC formerly used for office and storage space. At the time of the inspection this building was deserted and was being used by EPA for storage (Reference 4). The tank farm is approximately 180 feet by 100 feet and has secondary containment in place (Reference 4). At 801 Francis Street is The Sports Shop, Inc., which is located between Francis Street and the Seven Out LLC tank farm (Reference 6). The property south of the site is owned by CSX Railroad. Four frac tanks from the site are located on CSX property. The area surrounding the Seven Out LLC facility is a mixed use area including commercial, industrial, and residential property. The nearest residential property is located at 103 Folks Street approximately 220 feet from the tank farm area (Reference 4). Figure 2 depicts the site and surrounding area (Reference 4). Photographs taken during the onsite reconnaissance are included in the trip report (Reference 4).

Sanborn Fire Insurance Maps indicate that the site was partially occupied on the west side by J.H. Gillon and Company's Foundry and Machine Shop and a lime and cement warehouse on the east side in 1897. The Gillon Machine Company continued to occupy the west side of the site through 1913, however, 1922 edition maps indicate the west side as vacant (Reference 7). The 1922 maps indicate that the east side was partially occupied by the John D. Hopkins Hay and Grain. In 1930, a grocery was added to the John D. Hopkins Hay and Grain. The 1947 maps indicate occupation of the site by a wholesale hay, grain, and grocery (Reference 7). Maps covering the time after 1947 could not be located.

The site was constructed to be an industrial wastewater processing facility (Reference 8). A request for a GAEPD/USEPA identification number for a used oil processor was received by GAEPD, on behalf of BCX Waycross, on December 11, 2001, and number GAR000030007 was assigned (Reference 9). The facility was permitted by the City of Waycross to discharge non-domestic pre-treated wastewater to the sewer for processing by the POTW (Reference 10). A representative of EPD performed a Used Oil processor compliance evaluation inspection on April 22, 2003. At the time of this inspection the facility had not received any used oil for processing (Reference 11). The facility apparently began operation shortly after the above inspection because the City of Waycross issued eight formal Notice of Violations for the months of May 2003 through January 2004 (Reference 12). These violations of the facilities discharge permit resulted in a Consent Order issued by the City on January 27, 2004 (Reference 13). This Consent Order was not signed by BCX, Inc., however a letter to the City dated March 3, 2004 stated that the facility was ceasing discharge to the City POTW (Reference 14). EPD conducted another inspection on April 6, 2004. At this time it was observed that the facility had ceased accepting industrial wastewater and stopped discharging to the Waycross POTW (Reference 15). On April 23, 2004, EPD issued a Notice of Violation to the facility for failing to determine the contents of 27 tanks located in the facility's tank farm and in the four flocculation box tanks (frac tanks)(40 CFR Section 262.11)(Reference 16). On June 2, 2004 a release of approximately 4000-5000 gallons of unknown liquid from a 10,000-gallon frac tank belonging to the facility occurred on the CSX property (Reference 17). EPD inspected the site and took soil samples from the spill area on June 23, 2004 (Reference 18). EPD sent a proposed Consent Order to the facility on July 20, 2004 for violations observed during the inspections conducted on April 6 and June 23, 2004, namely storing hazardous waste and unidentified wastewaters (Reference 19). EPD received responses from representatives of the facility, however the Consent Order was never signed by the facility (Reference 20). EPD requested assistance from EPA with sampling at the site and sampling was performed on August 23-26, 2004 by EPA contractor Tetra Tech EM, Inc. Sampling results are included in the Removal Assessment Report prepared by Tetra Tech (References 8 and 21). EPD requested assistance from EPA with the remediation of the facility by letter dated January 21, 2005 (Reference 22).

Probable Substances of Concern:
(Previous investigations, analytical data)

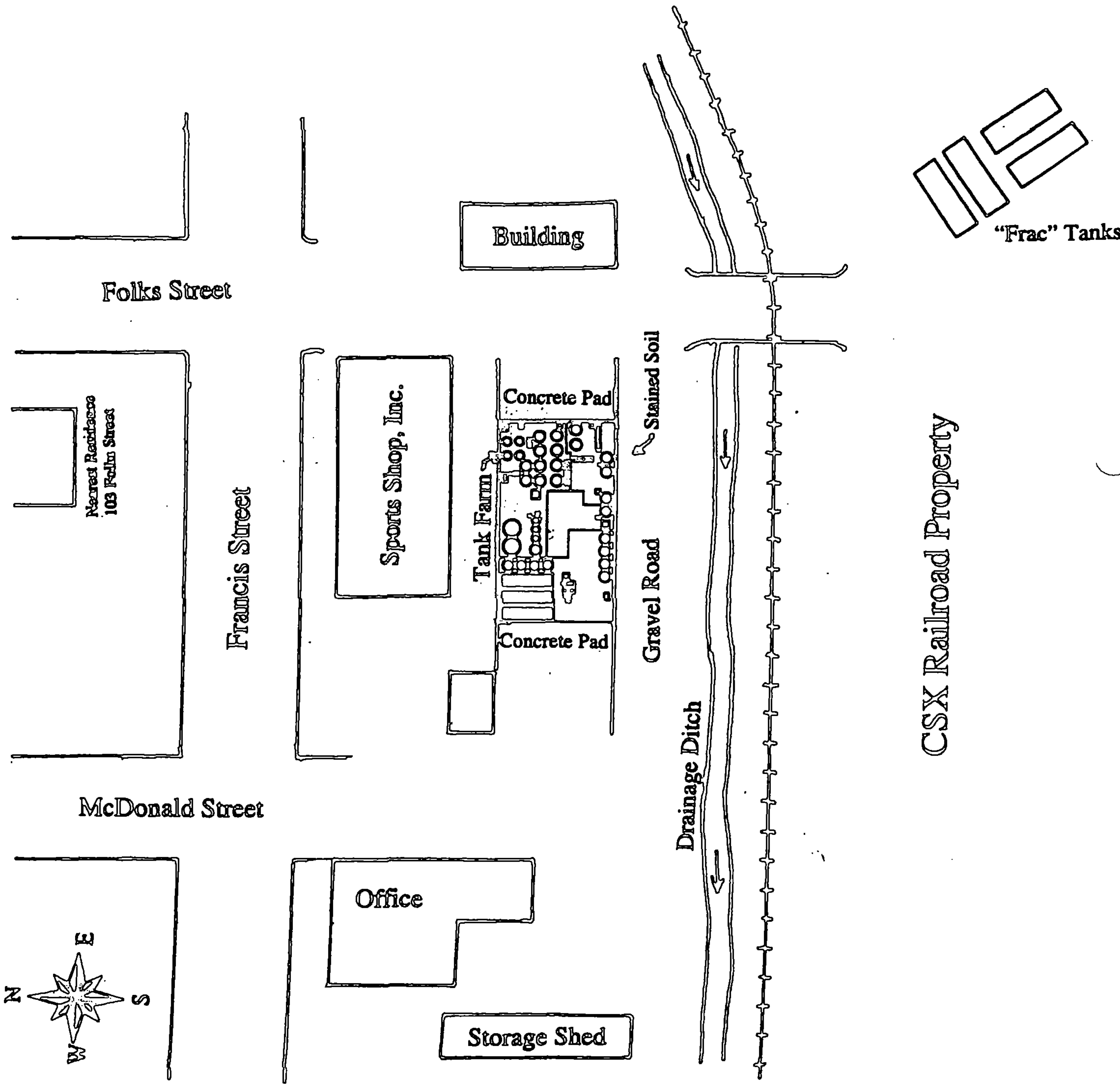
Analytical results confirming a release of hazardous constituents from the site to groundwater, surface water, and air were not available. Analytical results of soil samples procured from the site have confirmed the presence of TCLP lead, arsenic, benzene, benz(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(b)fluoroanthene, carbon disulfide, and total metals (Reference 8).

Analytical results of samples procured from tanks that were analyzed as solid samples have confirmed the presence of lead, mercury, benzene, vanadium, acetone, 2-methylnaphthalene, phenanthrene, and naphthalene. Analytical results of samples procured from tanks that were analyzed as liquid samples have confirmed the presence of 2-butanone, 4-methyl-2-pentanone, acetone, benzene, toluene, xylenes, several SVOC's and phenol (Reference 8).

See Table 2.1 and Table 2.2 in the narrative for sampling results.

GENERAL INFORMATION (continued)

Site Sketch: Prepare a sketch of the site (freehand is acceptable). Indicate all pertinent features of the site and nearby environs, including: waste sources, buildings, residences, access roads, parking areas, drainage patterns, water bodies, vegetation, wells, sensitive environments, etc.



Not to Scale

SOURCE EVALUATION

- Number and name each source (e.g., 1. East Drum Storage Area, 2. Sludge Lagoon, 3. Battery Pile).
- Identify source type according to the list below.
- Describe the physical character of each source (e.g., dimensions, contents, waste types, containment, operating history).
- Show waste quantity (WQ) calculations for each source for appropriate tiers. Refer to instructions opposite page 5 and PA Tables 1a and 1b. Identify waste quantity tier and waste characteristics (WC) factor category score (for a site with a single source, according to PA Table 1a). Determine WC from PA Table 1b for the sum of source WQs for a multiple-source site.
- Attach additional sheets if necessary.
- Determine the site WC factor category score and record at the bottom of the page.

Source Type Descriptions

Landfill: an engineered (by excavation or construction) or natural hole in the ground into which wastes have been disposed by backfilling, or by contemporaneous soil deposition with waste disposal, covering wastes from view.

Surface Impoundment: a topographic depression, excavation, or diked area, primarily formed from earthen materials (lined or unlined) and designed to hold accumulated liquid wastes, wastes containing free liquids, or sludges that were not backfilled or otherwise covered during periods of deposition; depression may be dry if deposited liquid has evaporated, volatilized or leached, or wet with exposed liquid; structures that may be more specifically described as lagoon pond, aeration pit, settling pond, tailings pond, sludge pit, etc.; also a surface impoundment that has been covered with soil after the final deposition of waste materials (i.e., buried or backfilled).

Drums: portable containers designed to hold a standard 55-gallon volume of wastes.

Tanks and Non-Drum Containers: any stationary device, designed to contain accumulated wastes, constructed primarily of fabricated materials (such as wood, concrete, steel, or plastic) that provide structural support; any portable or mobile device in which waste is stored or otherwise handled.

Contaminated Soil: soil onto which available evidence indicates that a hazardous substance was spilled, spread, disposed, or deposited.

Pile: any non-containerized accumulation above the ground surface of solid, non-flowing wastes; includes open dumps. Some types of piles are: Chemical Waste Pile -- consists primarily of discarded chemical products, by-products, radioactive wastes, or used or unused feedstocks; Scrap Metal or Junk Pile -- consists primarily of scrap metal or discarded durable goods such as appliances, automobiles, auto parts, or batteries, composed of materials suspected to contain or have contained a hazardous substance; Tailings Pile -- consists primarily of any combination of overburden from a mining operation and tailings from a mineral mining, beneficiation, or processing operation; Trash Pile -- consists primarily of paper, garbage, or discarded non-durable goods which are suspected to contain or have contained a hazardous substance.

Land Treatment: landfarming or other land treatment method of waste management in which liquid wastes or sludges are spread over land and tilled, or liquids are injected at shallow depths into soils.

Other: a source that does not fit any of the descriptions above; examples include contaminated building, ground water plume with no identifiable source, storm drain, dry well, and injection well.

SOURCE EVALUATION

Source No.: 1	Source Name: TANK FARM	Source Waste Quantity (WQ) Calculations:
Source Description: TANKS AND NON-DRUM CONTAINERS SECONDARY CONTAINMENT IN PLACE ~ 500,000 GALLONS		$WQ = \frac{500,000}{500} = 1000$

Source No.: 2	Source Name: FRAC TANKS	Source Waste Quantity (WQ) Calculations:
Source Description: TANKS AND NON-DRUM CONTAINERS 4 FRAC TANKS		3 TANKS: 18,000 GALLONS 1 TANK: 22,000 GALLONS $(3 \times 18,000) + 22,000 = 76,000$ GAL $WQ = \frac{76,000}{500} = 152$

Source No.: 3	Source Name: SOIL AT FRAC TANKS	Source Waste Quantity (WQ) Calculations:
Source Description: CONTAMINATED SOIL AT FRAC TANKS		AREA: $50' \times 25' = 1250\ ft^2$ $WQ = \frac{1250\ ft^2}{34,000} = 0.04$

Site WC: —

SOURCE EVALUATION

Source No.: 4	Source Name: SOIL AT SOUTH WALL OF TANK FARM	Source Waste Quantity (WQ) Calculations:
Source Description: STAINED SOIL AT SOUTHWEST CORNER OF TANK FARM OUTSIDE OF SECONDARY CONTAINMENT.		AREA: $20' \times 10' = 200\ ft^2$ $WQ = \frac{200\ ft^2}{34{,}000} = 0.006$

Source No.: 5	Source Name: DRAINAGE DITCH	Source Waste Quantity (WQ) Calculations:
Source Description: CONTAMINATED SOIL IN DRAINAGE DITCH SOUTH OF TANK FARM DITCH IS APPROXIMATELY 4 FEET WIDE AND ESTIMATED CONTAMINATION LENGTH IS 25 FEET LONG.		AREA: $25' \times 4' = 100\ ft^2$ $WQ = \frac{100\ ft^2}{34{,}000} = 0.003$

Source No.:	Source Name:	Source Waste Quantity (WQ) Calculations:
Source Description:		

$WQ_T = 1000 + 152 + .04 + .006 + .003$

$= 1152.049$

IF WQ_T IS $(>100 \text{ to } 10{,}000)_{A\text{-}7}$ THEN $WC = 32$

Site WC: 32

WASTE CHARACTERISTICS (WC) SCORES

WC, based on waste quantity, may be determined by one or all of four measures called "tiers": constituent quantity, wastestream quantity, source volume, and source area. PA Table 1a (page 5) is divided into these four tiers. The amount and detail of information available determine which tier(s) to use for each source. For each source, evaluate waste quantity by as many of the tiers as you have information to support, and select the result that gives you the highest WC score. If minimal, incomplete, or no information is available regarding waste quantity, assign a WC score of 18 (minimum).

PA Table 1a has 6 columns: column 1 indicates the quantity tier; column 2 lists source types for the four tiers; columns 3, 4, and 5 provide ranges of waste amount for sites with only one source, which correspond to WC scores at the top of the columns (18, 32, or 100); column 6 provides formulas to obtain source waste quantity (WQ) values at sites with multiple sources.

To determine WC for sites with only one source:

1. *Identify source type (see descriptions opposite page 4).*
2. *Examine all waste quantity data available.*
3. *Estimate the mass and/or dimensions of the source.*
4. *Determine which quantity tiers to use based on available source information.*
5. *Convert source measurements to appropriate units for each tier you can evaluate for the source.*
6. *Identify the range into which the total quantity falls for each tier evaluated (PA Table 1a).*
7. *Determine the highest WC score obtained for any tier (18, 32, or 100, at top of PA Table 1a columns 3, 4, and 5, respectively).*
8. *Use this WC score for all pathways.°*

To determine WC for sites with multiple sources:

1. *Identify each source type (see descriptions opposite page 4).*
2. *Examine all waste quantity data available for each source.*
3. *Estimate the mass and/or dimensions of each source.*
4. *Determine which quantity tiers to use for each source based on the available information.*
5. *Convert source measurements to appropriate units for each tier you can evaluate for each source.*
6. *For each source, use the formulas in column 6 of PA Table 1a to determine the WQ value for each tier that can be evaluated. The highest WQ value obtained for any tier is the WQ value for the source.*
7. *Sum the WQ values for all sources to get the site WQ total.*
8. *Use the site WQ total from step 7 to assign the WC score from PA Table 1b.*
9. *Use this WC score for all pathways.°*

° The WC score is considered in all four pathways. However, if a primary target is identified for the ground water, surface water, or air migration pathway, assign the determined WC or a score of 32, whichever is greater, as the WC score for that pathway.

PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores) WC = 18	WC = 32	WC = 100	MULTIPLE SOURCE SITES Formula for Assigning Source WQ Values
CONSTITUENT	N/A	≤100 lb	>100 to 10,000 lb	>10,000 lb	lb ÷ 1
WASTESTREAM	N/A	≤500,000 lb	>500,000 to 50 million lb	>50 million lb	lb ÷ 5,000
VOLUME	Landfill	≤6.75 million ft³ ≤250,000 yd³	>6.75 million to 675 million ft³ >250,000 to 25 million yd³	>675 million ft³ >25 million yd³	ft³ ÷ 67,500 yd³ ÷ 2,500
	Surface impoundment	≤6,750 ft³ ≤250 yd³	>6,750 to 675,000 ft³ >250 to 25,000 yd³	>675,000 ft³ >25,000 yd³	ft³ ÷ 67.5 yd³ ÷ 2.5
	Drums	≤1,000 drums	>1,000 to 100,000 drums	>100,000 drums	drums ÷ 10
	Tanks and non-drum containers	≤50,000 gallons	>50,000 to 5 million gallons	>5 million gallons	gallons ÷ 500
	Contaminated soil	≤6.75 million ft³ ≤250,000 yd³	>6.75 million to 675 million ft³ >250,000 to 25 million yd³	>675 million ft³ >25 million yd³	ft³ ÷ 67,500 yd³ ÷ 2,500
	Pile	≤6,750 ft³ ≤250 yd³	>6,750 to 675,000 ft³ >250 to 25,000 yd³	>675,000 ft³ >25,000 yd³	ft³ ÷ 67.5 yd³ ÷ 2.5
	Other	≤6,750 ft³ ≤250 yd³	>6,750 to 675,000 ft³ >250 to 25,000 yd³	>675,000 ft³ >25,000 yd³	ft³ ÷ 67.5 yd³ ÷ 2.5
AREA	Landfill	≤340,000 ft² ≤7.8 acres	>340,000 to 34 million ft² >7.8 to 780 acres	>34 million ft² >780 acres	ft² ÷ 3,400 acres ÷ 0.078
	Surface impoundment	≤1,300 ft² ≤0.029 acres	>1,300 to 130,000 ft² >0.029 to 2.9 acres	>130,000 ft² >2.9 acres	ft² ÷ 13 acres ÷ 0.00029
	Contaminated soil	≤3.4 million ft² ≤78 acres	>3.4 million to 340 million ft² >78 to 7,800 acres	>340 million ft² >7,800 acres	ft² ÷ 34,000 acres ÷ 0.78
	Pile*	≤1,300 ft² ≤0.029 acres	>1,300 to 130,000 ft² >0.029 to 2.9 acres	>130,000 ft² >2.9 acres	ft² ÷ 13 acres ÷ 0.00029
	Land treatment	≤27,000 ft² ≤0.62 acres	>27,000 to 2.7 million ft² >0.62 to 62 acres	>2.7 million ft² >62 acres	ft² ÷ 270 acres ÷ 0.0062

1 ton = 2,000 lb = 1 yd³ = 4 drums = 200 gallons

* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	WC Score
>0 to 100	18
>100 to 10,000	32
>10,000	100

GROUND WATER PATHWAY

Ground Water Use Description: Provide information on ground water use in the vicinity. Present the general stratigraphy, aquifers used, and distribution of private and municipal wells.

Calculations for Drinking Water Populations Served by Ground Water: Provide populations from private wells and municipal supply systems in each distance category. Show apportionment calculations for blended supply systems.

Waycross/Ware County Municipal/County Blended Groundwater Supplies Apportionment Calculations

[illegible]	[illegible]	Well	[illegible]	Radius (miles) [illegible]	Population Served [illegible]	[illegible]	[illegible] of Total [illegible]	Population Serving [illegible]	Population for this Well
Satilla Regional Water & Sewer Authority	GA2990001	Monroe St. Well°	Floridan NA	2-3	9415	120,276,000	8.9	32,120	2859
Satilla Regional Water & Sewer Authority	GA2990001	Off Nevada Avenue in Emerson Park Well°	Floridan 806'	2-3	Combined with above	61,728,000	4.6	32,120	1478
Satilla Regional Water & Sewer Authority	**GA2990001**	**Off Albany Avenue – Waresboro Well°**	**Floridan 800'**	**>4**	**Combined with above**	**96,504,000**	**7.2**	**32,120**	**2313**
Satilla Regional Water & Sewer Authority	**GA2990051**	**Driggers Road Well°**	**Floridan 806'**	**>4**	**3305**	**88,380,000**	**6.6**	**32,120**	**2120**
Satilla Regional Water & Sewer Authority	GA2990051	Swamp Road Well°	Floridan 800'	1-2	Combined with above	18,504,000	1	32,120	321
City of Waycross	GA2990002	Well #1° 658'°	Floridan 700'	¼-1/2	16900	120,000	0	32,120	0
City of Waycross	GA2990002	Well #2° 762'	Floridan 762'	¼-1/2	Combined with above	109,500,000	8.1	32,120	2602
City of Waycross	GA2990003	Well #3 773'°	Floridan 773'	¼-1/2	Combined with above	693,500,000	51.4	32,120	16,510
Waycross-Ware County Industrial Park	**GA2990019**	**Well #1° Fulford Road**	**Floridan**	**>4**	**2500**	**96,725,000**	**7.2**	**32,120**	**2313**
Waycross - Ware County Industrial Park	GA2990019	Well #2° Harris Road	Floridan	3-4	Combined with Above	63,875,000	4.7	32,120	1510
TOTALS					32,120	1,349,107,000	99.7°		32026°

°Scientific Rounding Accounts for differences in percentage and totals

Outside the 4-mile radius

Reference Telecommunications with Sharpton, McDaniel, and Thomas.

GROUND WATER PATHWAY
GROUND WATER USE DESCRIPTION

Describe Ground Water Use Within 4-miles of the Site:
(Describe stratigraphy, information on aquifers, municipal and/or private wells)

The site is underlain by Pleistocene and Pliocene sands and gravels, primarily associated with the Brandywine, Coharie, and Suderland formations. The Brandywine Formation consists of less than 50 feet of sand and gravelwhich resembles the coarser sands of the Hawthorn, unconformably stratigraphically below the Brandywine. Should any formations overlie the Brandywine, these would probably lie unconformably. The Coharie Formation may overlie the Brandywine Formation or the Hawthorn, both unconformably. The lithology of the Coharie includes less than 50 feet of sand, some coarse in nature. In some area, angular pebbles may be present, however, other areas may contain smooth flat pebbles of transparent quartz. The Sunderland Formation consists of fine white or light-gray sand. Where the Sunderland is present, it may be overlain by marshy, boggy environments, associated with wetlands. The unconformities within all of the mentioned formations result from continuous advances and retreats of the Atlantic Ocean (Reference 24). As evidenced during rainfall during the VSI, infiltration rate is not high and the subsurface to a great depth does not appear to be highly permeable (Reference 4). Releases to the soils would most likely have migrated to the surface water pathway more readily than the groundwater pathway at the site. The site is not karst according to the City of Waycross Wellhead Protection Plan (Reference 25). Groundwater production in the Waycross area occurs primarily from the Ocala Limestone of the Principal Floridan Aquifer at depths exceeding 500 feet. Previously operated wells in the Waycross area encountered groundwater in a fine to coarse-grained sand between 350 and 400 feet deep and in limestone below 500 feet deep (Reference 26). Within the Coastal Plain, groundwater is usually encountered in medium to coarse sands and in limestones.

The Seven Out LLC Tank site lies within an area determined to have a higher (Drastic Rating > 141) groundwater pollution susceptibility rating (Reference 32). The site is not located within a significant groundwater recharge area (Reference 33).

The primary public supplies of groundwater are provided by the City of Waycross, Waycross/Ware Industrial Park, and the Satilla Regional Water and Sewer Authority (References 29 and 30). Groundwater withdrawal in Ware County accounts for 84% of all water supplies in the county. Groundwater is the sole water supply used for public consumption. Roughly half of the groundwater withdrawn in Ware County is used for public supply (Reference 31). Major suppliers of groundwater include the City of Waycross (3 wells), the Satilla Regional Water and Sewer Authority (5 wells), and the Waycross/Ware County Industrial Park (2 wells). Seven (7) of these wells exist within the 4-mle radius in the Floridan aquifer: City of Waycross has three (3) within the ¼-1/2 mile radius, Satilla Regional Water and Sewer Authority has three (3) wells, and the Waycross/Ware County Industrial Park has one (1) well The site does not fall within a wellhead protection area of any of the City of Brunswick wells. Two (2) additional wells in the Floridan aquifer are at the Baptist Retirement Village, west of the site in the 2-3 mile radius (References 29, 30, 34). Additional wells include numerous residential wells located within the four (4) mile radius (References 27 and 28). Table 3.1 provides a complete listing of groundwater wells and user population identified within the 4-mile radius. Figure 3 shows the 4-mile radius from the site with the major groundwater wells identified (References 27, 28, 29, 30, 34, and 35)

Calculations for Drinking Water Populations Served by Ground Water:

Groundwater Users Within 4-mile Radius of Site

Distance (miles)	# of Drilled Wells	Population on Wells
0-.25	0	0
.25 - .5	4	19,114
.5 - 1.0	7	20
1.0 - 2.0	105	592
2.0 - 3.0	310	5,492
3.0 - 4.0	721	2,405
Totals	1,147	27,623

GROUND WATER PATHWAY CRITERIA LIST

This "Criteria List" helps guide the process of developing hypotheses concerning the occurrence of a suspected release and the exposure of specific targets to a hazardous substance. The check-boxes record your professional judgment in evaluating these factors. Answers to all of the listed questions may not be available during the PA. Also, the list is not all-inclusive; if other criteria help shape your hypotheses, list them at the bottom of the page or attach an additional page.

The "Suspected Release" section identifies several site, source, and pathway conditions that could provide insight as to whether a release from the site is likely to have occurred. If a release is suspected, use the "Primary Targets" section to evaluate conditions that may help identify targets likely to be exposed to a hazardous substance. Record responses for the well that you feel has the highest probability of being exposed to a hazardous substance. You may use this section of the chart more than once, depending on the number of targets you feel may be considered "primary."

Check the boxes to indicate a "yes," "no," or "unknown" answer to each question. If you check the "Suspected Release" box as "yes," make sure you assign a Likelihood of Release value of 550 for the pathway.

Waycross/Ware County Municipal/County Blended Groundwater Supplies Apportionment Calculations

Provider	ID #	Well #	Aquifer/ Depth	Radius (miles)	Population Served	Gallons Pumped (yr)	% of Gallons of Total Blended System	X Total Population Served by Blended System	Appropriated Population for this Well
Satilla Regional Water & Sewer Authority	GA2990001	Monroe St. Well*	Floridan NA	2-3	9415	120,276,000	8.9	32,120	2859
Satilla Regional Water & Sewer Authority	GA2990001	Off Nevada Avenue in Emerson Park Well*	Floridan 806'	2-3	Combined with above	61,728,000	4.6	32,120	1478
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Satilla Regional Water & Sewer Authority	GA2990051	Swamp Road Well*	Floridan 800'	1-2	Combined with above	18,504,000	1	32,120	321
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TOTALS					32,120	1,349,107,000	99.7*		32026*

*Scientific Rounding Accounts for differences in percentage and totals

Outside the 4-mile radius

Reference Telecommunications with Sharpton, McDaniel, and Thomas.

GROUND WATER PATHWAY CRITERIA LIST

SUSPECTED RELEASE

Yes	No	Unk	
☐	☑	☐	Are sources poorly contained?
☐	☑	☐	Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)?
☑	☐	☐	Is waste quantity particularly large?
☐	☐	☐	Is precipitation heavy?
☐	☑	☐	Is the infiltration rate high?
☐	☑		Is the site located in an area of karst terrain?
☐	☑	☐	Is the subsurface highly permeable or conductive?
☐	☑	☐	Is drinking water drawn from a shallow aquifer?
☑	☐	☐	Are suspected contaminants highly mobile in ground water?
☐	☑	☐	Does analytical or circumstantial evidence suggest ground water contamination?
☐	☑		Other criteria? ____________
☐	☑		**SUSPECTED RELEASE?**

Summarize the rationale for Suspected Release (attach an additional page if necessary):

NO RELEASE IS SUSPECTED BECAUSE TANK FARM HAS SECONDARY CONTAINMENT IN PLACE WHICH DID NOT APPEAR TO BE COMPROMISED.

PRIMARY TARGETS

Yes	No	Unk	
☑	☐	☐	Is any drinking water well nearby?
☐	☑	☐	Has any nearby drinking water well been closed?
☐	☑	☐	Has any nearby drinking water user reported foul-tasting or foul-smelling water?
☑	☐	☐	Does any nearby well have a large drawdown or high production rate?
☐	☑	☐	Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance?
☐	☑	☐	Does analytical or circumstantial evidence suggest contamination at a drinking water well?
☐	☑	☐	Does any drinking water well warrant sampling?
☐	☑		Other criteria? ____________
☐	☑		**PRIMARY TARGET(S) IDENTIFIED?**

Summarize the rationale for Primary Targets (attach an additional page if necessary):

NO PRIMARY TARGETS ARE IDENTIFIED BECAUSE NO RELEASE IS SUSPECTED AND NO CONTAMINATION HAS BEEN REPORTED IN NEARBY CITY WELLS.

GROUND WATER PATHWAY SCORESHEET

Pathway Characteristics

Answer the questions at the top of the page. Refer to the Ground Water Pathway Criteria List (page 7) to hypothesize whether you suspect that a hazardous substance associated with the site has been released to ground water. Record depth to aquifer (in feet): the difference between the deepest occurrence of a hazardous substance and the depth of the top of the shallowest aquifer at (or as near as possible) to the site. Note whether the site is in karst terrain (characterized by abrupt ridges, sink holes, caverns, springs, disappearing streams). Record the distance (in feet) from any source to the nearest well used for drinking water.

Likelihood of Release (LR)

1. Suspected Release: Hypothesize based on professional judgment guided by the Ground Water Pathway Criteria List (page 7). If you suspect a release to ground water, use only Column A for this pathway and do not evaluate factor 2.

2. No Suspected Release: If you do not suspect a release, determine score based on depth to aquifer or whether the site is in an area of karst terrain. If you do not suspect a release to ground water, use only Column B to score this pathway.

Targets (T)

This factor category evaluates the threat to populations obtaining drinking water from ground water. To apportion populations served by blended drinking water supply systems, determine the percentage of population served by each well based on its production.

3. Primary Target Population: Evaluate populations served by all drinking water wells that you suspect have been exposed to a hazardous substance released from the site. Use professional judgment guided by the Ground Water Pathway Criteria List (page 7) to make this determination. In the space provided, enter the population served by any wells you suspect have been exposed to a hazardous substance from the site. If only the number of residences is known, use the average county residents per household (rounded up to the next integer) to determine population served. Multiply the population by 10 to determine the Primary Target Population score. Note that if you do not suspect a release, there can be no primary target population.

4. Secondary Target Population: Evaluate populations served by all drinking water wells within 4 miles that you do not suspect have been exposed to a hazardous substance. Use PA Table 2a or 2b (for wells drawing from non-karst and karst aquifers, respectfully) (page 9). If only the number of residences is known, use the average county residents per household (rounded to the nearest integer) to determine population served. Circle the assigned value for the population in each distance category and enter it in the column on the far-right side of the table. Sum the far-right column and enter the total as the Secondary Target Population factor score.

5. Nearest Well represents the threat posed to the drinking water well that is most likely to be exposed to a hazardous substance. If you have identified a primary target population, enter 50. Otherwise, assign the score from PA Table 2a or 2b for the closest distance category with a drinking water well population.

6. Wellhead Protection Area (WHPA): WHPAs are special areas designated by States for protection under Section 1428 of the Safe Drinking Water Act. Local/State and EPA Regional water officials can provide information regarding the location of WHPAs.

7. Resources: A score of 5 can generally be assigned as a default measure. Assign zero only if ground water within 4 miles has no resource use.

Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

Waste Characteristics (WC)

8. Waste Characteristics: Score is assigned from page 4. However, if you have identified any primary target for ground water, assign either the score calculated on page 4 or a score of 32, whichever is greater.

Ground Water Pathway Score: Multiply the scores for LR, T, and WC. Divide the product by 82,500. Round the result to the nearest integer. If the result is greater than 100, assign 100.

GROUND WATER PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Ground Water Pathway Criteria List, page 7)?	Yes ___ No ✓
Is the site located in karst terrain?	Yes ___ No ✓
Depth to aquifer:	> 700 ft
Distance to the nearest drinking water well:	0.25 mile

LIKELIHOOD OF RELEASE

	A Suspected Release	B No Suspected Release	References
1. SUSPECTED RELEASE: If you suspect a release to ground water (see page 7), assign a score of 550. Use only column A for this pathway.			
2. NO SUSPECTED RELEASE: If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.		340	27,28,29,30,34
LR =		340	

TARGETS

	A	B	References
3. PRIMARY TARGET POPULATION: Determine the number of people served by drinking water wells that you suspect have been exposed to a hazardous substance from the site (see Ground Water Pathway Criteria List, page 7). 0 people x 10 =			27,28,29,30,34
4. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water wells that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes ✓ No ___ If yes, attach a page to show apportionment calculations.		1103	27,28,29,30,34
5. NEAREST WELL: If you have identified a primary target population for ground water, assign a score of 50; otherwise, assign the Nearest Well score from PA Table 2. If no drinking water wells exist within 4 miles, assign a score of zero.		18	27,28,29,34
6. WELLHEAD PROTECTION AREA (WHPA): If any source lies within or above a WHPA, or if you have identified any primary target well within a WHPA, assign a score of 20; assign 5 if neither condition holds but a WHPA is present within 4 miles; otherwise assign zero.		5	25
7. RESOURCES		5	1
T =		1131	

WASTE CHARACTERISTICS

	A	B
8. A. If you have identified any primary target for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.		
B. If you have NOT identified any primary target for ground water, assign the waste characteristics score calculated on page 4.		32
WC =		32

GROUND WATER PATHWAY SCORE: $\frac{LR \times T \times WC}{82{,}500}$ (subject to a maximum of 100) **100**

$$\frac{(340)(1131)(32)}{82{,}500} = 149$$

PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	Population Value
0 to ¼ mile	0	20	1	2	5	16	52	163	521	1.633	5.214	16.325	
> ¼ to ½ mile	19,114	18	1	1	3	10	32	101	323	1,012	3,233	10,121	1,012
> ½ to 1 mile	20	9	1	1	2	5	17	52	167	522	1,668	5,224	1
> 1 to 2 miles	592	5	1	1	1	3	9	29	94	294	939	2,938	9
> 2 to 3 miles	5,492	3	1	1	1	2	7	21	68	212	678	2,122	68
> 3 to 4 miles	2,405	2	1	1	1	1	4	13	42	131	417	1,306	13

Nearest Well = 18

Score = 1,103

PA Table 2b: Karst Aquifers

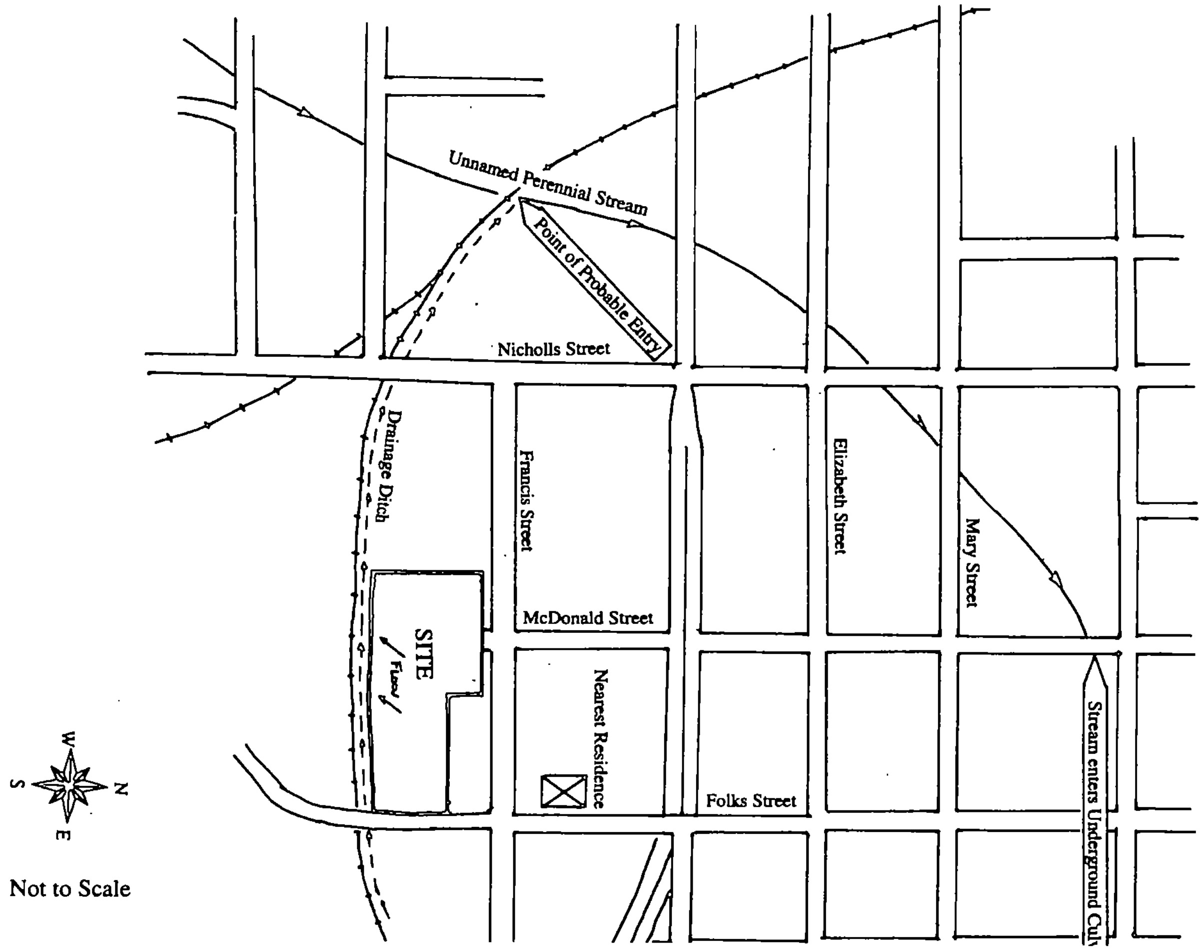
Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	Population Value
0 to ¼ mile		20	1	2	5	16	52	163	521	1,633	5,214	16,325	
> ¼ to ½ mile		20	1	1	3	10	32	101	323	1,012	3,233	10,121	
> ½ to 1 mile		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 1 to 2 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 2 to 3 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 3 to 4 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	

Nearest Well =

Score =

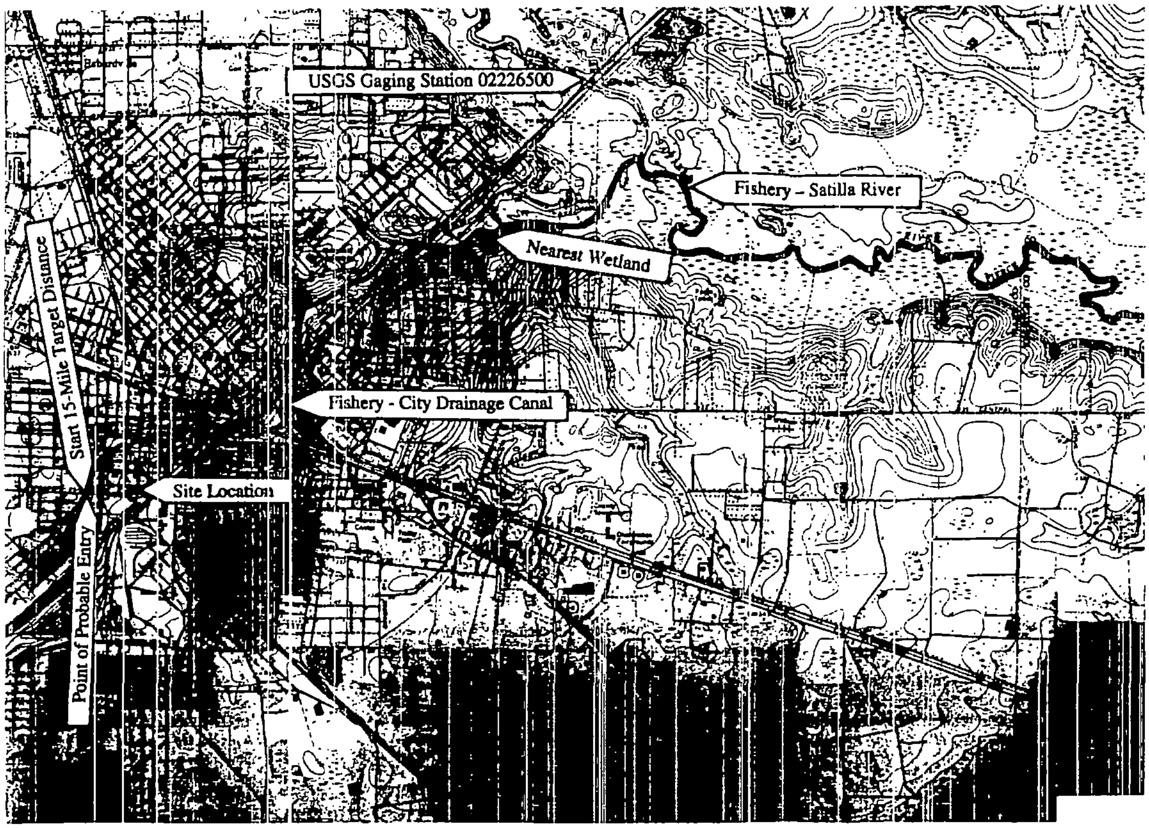
SURFACE WATER PATHWAY

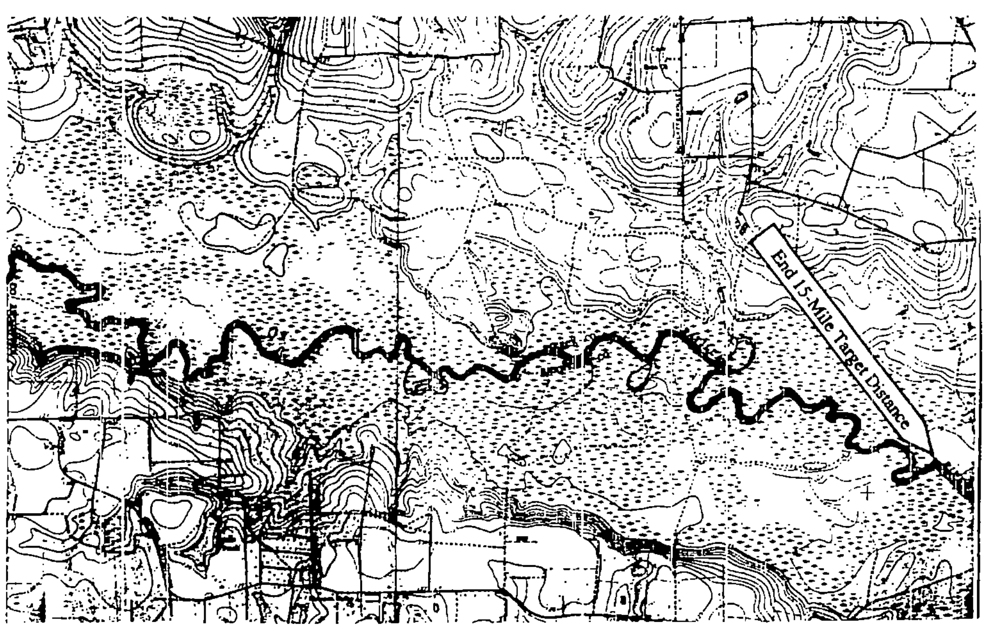
Migration Route Sketch: Sketch the surface water migration pathway (freehand is acceptable) illustrating the drainage route and identifying water bodies, probable point of entry, flows, and targets.



SURFACE WATER PATHWAY
MIGRATION ROUTE SKETCH

Suface Water Migration Route Sketch:
(include runoff route, probable point of entry, 15-mile target distance limit, intakes, fisheries, and sensitive environments)





SURFACE WATER PATHWAY CRITERIA LIST

This "Criteria List" helps guide the process of developing hypotheses concerning the occurrence of a suspected release and the exposure of specific targets to a hazardous substance. The check-boxes record your professional judgment in evaluating these factors. Answers to all of the listed questions may not be available during the PA. Also, the list is not all-inclusive; if other criteria help shape your hypotheses, list them at the bottom of the page or attach an additional page.

The "Suspected Release" section identifies several site, source, and pathway conditions that could provide insight as to whether a release from the site is likely to have occurred. If a release is suspected, use the "Primary Targets" section to guide you through evaluation of some conditions that may help identify targets likely to be exposed to a hazardous substance. Record responses for the target that you feel has the highest probability of being exposed to a hazardous substance. You may use this section of the chart more than once, depending on the number of targets you feel may be considered "primary."

Check the boxes to indicate a "yes," "no," or "unknown" answer to each question. If you check the "Suspected Release" box as "yes," make sure you assign a Likelihood of Release value of 550 for the pathway.

If the distance to surface water is greater than 2 miles, do not evaluate the surface water migration pathway. Document the source of information in the text boxes below the surface water criteria list.

SURFACE WATER PATHWAY CRITERIA LIST

SUSPECTED RELEASE

Yes	No	Unk	
☑	☐	☐	Is surface water nearby?
☑	☐	☐	Is waste quantity particularly large?
☐	☑	☐	Is the drainage area large?
☑	☐	☐	Is rainfall heavy?
☑	☐	☐	Is the infiltration rate low?
☐	☑	☐	Are sources poorly contained or prone to runoff or flooding?
☑	☐	☐	Is a runoff route well defined (e.g., ditch or channel leading to surface water)?
☐	☑	☐	Is vegetation stressed along the probable run-off route?
☐	☑	☐	Are sediments or water unnaturally discolored?
☐	☑	☐	Is wildlife unnaturally absent?
☐	☑	☐	Has deposition of waste into surface water been observed?
☐	☑	☐	Is ground water discharge to surface water likely?
☑	☐	☐	Does analytical or circumstantial evidence suggest surface water contamination?
☐	☑		Other criteria? ________
☐	☑		**SUSPECTED RELEASE?**

Summarize the rationale for Suspected Release (attach an additional page if necessary):

A RELEASE TO SURFACE WATER IS SUSPECTED. BASED ON ELEVATED LEVELS OF CHROMIUM, COPPER, LEAD, MANGANESE, AND ZINC IN THE DRAINAGE DITCH.

PRIMARY TARGETS

Yes	No	Unk	
☐	☑	☐	Is any target nearby? If yes: ☐ Drinking water intake ☐ Fishery ☐ Sensitive environment
☐	☑	☐	Has any intake, fishery, or recreational area been closed?
☐	☑	☐	Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target?
☐	☑	☐	Does any target warrant sampling? If yes: ☐ Drinking water intake ☐ Fishery ☐ Sensitive environment
☐	☑		Other criteria? ________
☐	☑		**PRIMARY INTAKE(S) IDENTIFIED?**
☐	☑		**PRIMARY FISHERY(IES) IDENTIFIED?**
☐	☑		**PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED?**

Summarize the rationale for Primary Targets (attach an additional page if necessary):

NO PRIMARY SURFACE WATER PATHWAY TARGETS HAVE BEEN IDENTIFIED

SURFACE WATER PATHWAY LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics

The surface water pathway includes three threats: Drinking Water Threat, Human Food Chain Threat, and Environmental Threat. Answer the questions at the top of the page. Refer to the Surface Water Pathway Criteria List (page 11) to hypothesize whether you suspect that a hazardous substance associated with the site has been released to surface water. Record the distance to surface water (the shortest overland drainage distance from a source to a surface water body). Record the flood frequency at the site (e.g., 100-yr, 200-yr). If the site is located in more than one floodplain, use the most frequent flooding event. Identify surface water use(s) along the surface water migration path and their distance(s) from the site.

Likelihood of Release (LR)

1. **Suspected Release:** Hypothesize based on professional judgment guided by the Surface Water Pathway Criteria List (page 11). If you suspect a release to surface water, use only Column A for this pathway and do not evaluate factor 2.

2. **No Suspected Release:** If you do not suspect a release, determine score based on the shortest overland drainage distance from a source to a surface water body. If distance to surface water is 2,500 feet or less, assign a score of 500. If distance to surface water is greater than 2,500 feet, determine score based on flood frequency. If you do not suspect a release to surface water, use only Column B to score this pathway.

Drinking Water Threat Targets (T)

3. List all drinking water intakes on downstream surface water bodies along the surface water migration path. Record the intake name, the type of water body on which the intake is located, the flow of the water body, and the number of people served by the intake (apportion the population if part of a blended system).

4. **Primary Target Population:** Evaluate populations served by all drinking water intakes that you suspect have been exposed to a hazardous substance released from the site. Use professional judgment guided by the Surface Water Pathway Criteria List (page 11) to make this determination. In the space provided, enter the population served by all intakes you suspect have been exposed to a hazardous substance from the site. If only the number of residences is known, use the average county residents per household (rounded up to the next integer) to determine population served. Multiply by 10 to determine the Primary Target Population score. Remember, if you do not suspect a release, there can be no primary target population.

5. **Secondary Target Population:** Evaluate populations served by all drinking water intakes within the target distance limit that you do not suspect have been exposed to a hazardous substance. Use PA Table 3 (page 13) and enter the population served by intakes for each flow category. If only the number of residences is known, use the average county residents per household (rounded to the nearest integer) to determine population served. Circle the assigned value for the population in each flow category and enter it in the column on the far-right side of the table. Sum the far-right column and enter the total as the Secondary Target Population factor score.

Gauging station data for many surface water bodies are available from USGS or other sources. In the absence of gauging station data, estimate flow using the list of surface water body types and associated flow categories in PA Table 4 (page 13). The flow for lakes is determined by the sum of flows of streams entering or leaving the lake. Note that the flow category "mixing zone of quiet flowing rivers" is limited to 3 miles from the probable point of entry.

6. **Nearest Intake** represents the threat posed to the drinking water intake that is most likely to be exposed to a hazardous substance. If you have identified a primary target population, enter 50. Otherwise, assign the score from PA Table 3 (page 13) for the lowest-flowing water body on which there is an intake.

7. **Resources:** A score of 5 can generally be assigned as a default measure. Assign zero only if surface water within the target distance limit has no resource use.

Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics

Do you suspect a release (see Surface Water Pathway Criteria List, page 11)? Yes ___ No ✓
Distance to surface water: 1200 ft
Flood frequency: > 500 yrs
What is the downstream distance to the nearest drinking water intake? N/A miles
Nearest fishery? ~1.8 miles Nearest sensitive environment? 3.0 miles

LIKELIHOOD OF RELEASE

	A Suspected Release	B No Suspected Release	References
1. SUSPECTED RELEASE: If you suspect a release to surface water (see page 11), assign a score of 550. Use only column A for this pathway.	(550) 550		8
2. NO SUSPECTED RELEASE: If you do not suspect a release to surface water, use the table below to assign a score based on distance to surface water and flood frequency. Use only column B for this pathway.		(500, 400, 300 or 100)	
LR =	(550) 550	(500, 400, 300 or 100)	

Distance to surface water ≤ 2,500 feet	500
Distance to surface water > 2,500 feet, and	
Site in annual or 10-year floodplain	500
Site in 100-year floodplain	400
Site in 500-year floodplain	300
Site outside 500-year floodplain	100

DRINKING WATER THREAT TARGETS

3. Record the water body type, flow (if applicable), and number of people served by each drinking water intake within the target distance limit. If there is no drinking water intake within the target distance limit, factors 4, 5, and 6 each receive zero scores.

Intake Name	*Water Body Type*	*Flow*	*People Served*
		___ cfs	
		___ cfs	
		___ cfs	

	A Suspected Release	B No Suspected Release	References
4. PRIMARY TARGET POPULATION: If you suspect any drinking water intake listed above has been exposed to a hazardous substance from the site (see Surface Water Pathway Criteria List, page 11), list the intake name(s) and calculate the factor score based on the total population served. ______, ______ 0 people x 10 =			34, 37
5. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water intakes that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 3. Are any intakes part of a blended system? Yes ___ No ___ If yes, attach a page to show apportionment calculations.			34,37
6. NEAREST INTAKE: If you have identified a primary target population for the drinking water threat (factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking water intake exists within the target distance limit, assign a score of zero.	(50, 20, 10, 2, 1, or 0)	(20, 10, 2, 1, or 0)	34,37
7. RESOURCES	(5 or 0)	(5 or 0) 5	1
T =		5	

PA TABLE 3: VALUES FOR SECONDARY SURFACE WATER TARGET POPULATIONS

Surface Water Body Flow (see PA Table 4)	Population	Nearest Intake (choose highest)	Population Served by Intakes Within Flow Category: 1 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	Greater than 1,000,000	Population Value
< 10 cfs	______	20	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	______
10 to 100 cfs	______	2	1	1	2	5	16	52	163	521	1,633	5,214	16,325	______
> 100 to 1,000 cfs	______	1	0	0	1	1	2	5	16	52	163	521	1,633	______
> 1,000 to 10,000 cfs	______	0	0	0	0	0	1	1	2	5	16	52	163	______
> 10,000 cfs or Great Lakes	______	0	0	0	0	0	0	0	1	1	2	5	16	______
3-mile Mixing Zone	______	10	1	3	8	26	82	261	816	2,607	8,162	26,068	81,663	______

Nearest intake = ______

Score = ______

PA TABLE 4: SURFACE WATER TYPE / FLOW CHARACTERISTICS WITH DILUTION WEIGHTS FOR SECONDARY SURFACE WATER SENSITIVE ENVIRONMENTS

Type of Surface Water Body: Water Body Type	OR Flow	Dilution Weight
minimal stream	< 10 cfs	1
small to moderate stream	10 to 100 cfs	0.1
moderate to large stream	> 100 to 1,000 cfs	N/A
large stream to river	> 1,000 to 10,000 cfs	N/A
large river	> 10,000 cfs	N/A
3-mile mixing zone of quiet flowing streams or rivers	10 cfs or greater	N/A
coastal tidal water (harbors, sounds, bays, etc.), ocean, or Great Lakes	N/A	N/A

SURFACE WATER PATHWAY HUMAN FOOD CHAIN THREAT SCORESHEET

Likelihood of Release (LR)

LR is the same for all surface water pathway threats. Enter LR score from page 12.

Human Food Chain Threat Targets (T)

8. The only human food chain targets are fisheries. A fishery is an area of a surface water body from which food chain organisms are taken or could be taken for human consumption on a subsistence, sporting, or commercial basis. Food chain organisms include fish, shellfish, crustaceans, amphibians, and amphibious reptiles. Fisheries are delineated by changes in surface water body type (i.e., streams and rivers, lakes, coastal tidal waters, and oceans/Great Lakes) and whenever the flow characteristics of a stream or river change.

In the space provided, identify all fisheries within the target distance limit. Indicate the surface water body type and flow for each fishery. Gauging station flow data are available for many surface water bodies from USGS or other sources. In the absence of gauging station data, estimate flow using the list of surface water body types and associated flow categories in PA Table 4 (page 13). The flow for lakes is determined by the sum of flows of streams entering or leaving the lake. Note that, if there are no fisheries within the target distance limit, the Human Food Chain Threat Targets score is zero.

9. Primary fisheries are any fisheries within the target distance limit that you suspect have been exposed to a hazardous substance released from the site. Use professional judgment guided by the Surface Water Pathway Criteria List (page 11) to make this determination. If you identify any primary fisheries, list them in the space provided, enter 300 as the Primary Fisheries factor score, and do not evaluate Secondary Fisheries. Note that if you do not suspect a release, there can be no primary fisheries.

10. Secondary fisheries are fisheries that you do not suspect have been exposed to a hazardous substance. Evaluate this factor only if fisheries are present within the target distance limit, but none is considered a primary fishery.

A. If you suspect a release to surface water and have identified a secondary fishery but no primary fishery, assign a score of 210.

B. If you do not suspect a release, evaluate this factor based on flow. In the absence of gauging station flow data, estimate flow using the list of surface water body types and associated flow categories in PA Table 4 (page 13). Assign a Secondary Fisheries score from the table on the scoresheet using the lowest flow at any fishery within the target distance limit. (Dilution weight multiplier does not apply to PA evaluation of this factor.)

Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT SCORESHEET

LIKELIHOOD OF RELEASE		A Suspected Release	B No Suspected Release	References
		(550)	(500,400,300 or 100)	
Enter Surface Water Likelihood of Release score from page 12.	LR =	550		8

HUMAN FOOD CHAIN THREAT TARGETS

8. Record the water body type and flow (if applicable) for each fishery within the target distance limit. If there is no fishery within the target distance limit, assign a Targets score of 0 at the bottom of the page.

Fishery Name	Water Body Type	Flow
SATILLA RIVER	RIVER	>100 cfs
CITY DRAINAGE CANAL	STREAM	<10 cfs
		cfs
		cfs
		cfs

References: 37, 39

9. **PRIMARY FISHERIES:** If you suspect any fishery listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the primary fisheries:

(300)

10. SECONDARY FISHERIES

A. If you suspect a release to surface water and have identified a secondary fishery but no primary fishery, assign a score of 210

(210)

B. If you do not suspect a release, assign a Secondary Fisheries score from the table below using the lowest flow at any fishery within the target distance limit.

Lowest Flow	Secondary Fisheries Score
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

(210,30, or 12): 210

References: 37, 39

	A (300,210, or 0)	B (210,30,12 or 0)
T =		210

SURFACE WATER PATHWAY ENVIRONMENTAL THREAT SCORESHEET

Likelihood of Release (LR)

LR is the same for all surface water pathway threats. Enter LR score from page 12.

Environmental Threat Targets (T)

11. PA Table 5 (page 16) lists sensitive environments for the Surface Water Pathway Environmental Threat. In the space provided, identify all sensitive environments located within the target distance limit. Indicate the surface water body type and flow at each sensitive environment. Gauging station flow data for many surface water bodies are available from USGS or other sources. In the absence of gauging station data, estimate flow using the list of surface water body types and associated flow categories in PA Table 4 (page 13). The flow for lakes is determined by the sum of flows of streams entering or leaving the lake. Note that if there are no sensitive environments within the target distance limit, the Environmental Threat Targets score is zero.

12. Primary sensitive environments are surface water sensitive environments within the target distance limit that you suspect have been exposed to a hazardous substance released from the site. Use professional judgment guided by the Surface Water Pathway Criteria List (page 11) to make this determination. If you identify any primary sensitive environments, list them in the space provided, enter 300 as the Primary Sensitive Environments factor score, and do not evaluate Secondary Sensitive Environments. Note that if you do not suspect a release, there can be no primary sensitive environments.

13. Secondary sensitive environments are surface water sensitive environments that you do not suspect have been exposed to a hazardous substance. Evaluate this factor only if surface water sensitive environments are present within the target distance limit, but none is considered a primary sensitive environment. Evaluate secondary sensitive environments based on flow.

- In the table provided, list all secondary sensitive environments on surface water bodies with flow of 100 cfs or less.

  1) Use PA Table 4 (page 13) to determine the appropriate dilution weight for each.

  2) Use PA Tables 5 and 6 (page 16) to determine the appropriate value for each sensitive environment type and for wetlands frontage.

  3) For a sensitive environment that falls into more than one of the categories in PA Table 5, sum the values for each type to determine the environment value (e.g., a wetland with 1.5 miles frontage (value of 50) that is also a critical habitat for a Federally designated endangered species (value of 100) would receive a total value of 150).

  4) For each sensitive environment, multiply the dilution weight by the environment type (or length of wetlands) value and record the product in the far-right column.

  5) Sum the values in the far-right column and enter the total as the Secondary Sensitive Environments score. Do not evaluate part B of this factor.

- If all secondary sensitive environments are on surface water bodies with flows greater than 100 cfs, assign 10 as the Secondary Sensitive Environments score.

Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT SCORESHEET

LIKELIHOOD OF RELEASE		A *Suspected Release*	B *No Suspected Release*	*References*
Enter Surface Water Likelihood of Release score from page 12.	LR =	550		8

ENVIRONMENTAL THREAT TARGETS

11. Record the water body type and flow (if applicable) for each surface water sensitive environment within the target distance limit (see PA Tables 4 and 5). If there is no sensitive environment within the target distance limit, assign a Targets score of 0 at the bottom of the page.

Environment Name	*Water Body Type*	*Flow*
SATICOY RIVER WETLANDS	RIVER	>100 cfs
CITY DRAINAGE CANAL	STREAM	<10 cfs
		cfs
		cfs
		cfs

References: 38,39

12. **PRIMARY SENSITIVE ENVIRONMENTS:** If you suspect any sensitive environment listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate factor 13. List the primary sensitive environments:

__________, __________

__________, __________

13. **SECONDARY SENSITIVE ENVIRONMENTS:** If sensitive environments are present, but none is a primary sensitive environment, evaluate Secondary Sensitive Environments based on flow.

A. For secondary sensitive environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:

Flow	*Dilution Weight (PA Table 4)*		*Environment Type and Value (PA Tables 5 and 6)*		*Total*
<10 cfs	1	x	(.6 mi) 25	=	25
cfs		x		=	
cfs		x		=	
cfs		x		=	
cfs		x		=	

	A	B	*References*
Sum =		25	38,39

B. If all secondary sensitive environments are located on surface water bodies with flows > 100 cfs, assign a score of 10.

	A	B
T =		25

PA TABLE 5: SURFACE WATER AND AIR PATHWAY SENSITIVE ENVIRONMENTS VALUES

Sensitive Environment	*Assigned Value*
Critical habitat for Federally designated endangered or threatened species Marine Sanctuary National Park Designated Federal Wilderness Area Ecologically important areas identified under the Coastal Zone Wilderness Act Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act Critical Areas Identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes) National Monument *(air pathway only)* National Seashore Recreation Area National Lakeshore Recreation Area	100
Habitat known to be used by Federally designated or proposed endangered or threatened species National Preserve National or State Wildlife Refuge Unit of Coastal Barrier Resources System Federal land designated for the protection of natural ecosystems Administratively Proposed Federal Wilderness Area Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay, or estuary Migratory pathways and feeding areas critical for the maintenance of anadromous fish species in a river system Terrestrial areas utilized for breeding by large or dense aggregations of vertebrate animals (air pathway) or semi-aquatic foragers (surface water pathway) National river reach designated as Recreational	75
Habitat known to be used by State designated endangered or threatened species Habitat known to be used by a species under review as to its Federal endangered or threatened status Coastal Barrier (partially developed) Federally designated Scenic or Wild River	50
State land designated for wildlife or game management *State designated Scenic or Wild River* State designated Natural Area Particular areas, relatively small in size, important to maintenance of unique biotic communities	25
State designated areas for protection/maintenance of aquatic life under the Clean Water Act	5
Wetlands	See PA Table 6 (Surface Water Pathway) or PA Table 9 (Air Pathway)

PA TABLE 6: SURFACE WATER PATHWAY WETLANDS FRONTAGE VALUES

Total Length of Wetlands	*Assigned Value*
Less than 0.1 *mile*	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

SURFACE WATER PATHWAY WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORES

Waste Characteristics (WC)

14. Waste Characteristics: Score is assigned from page 4. However, if a primary target has been identified for any surface water threat, assign either the score calculated on page 4 or a score of 32, whichever is greater.

Surface Water Pathway Threat Scores

Fill in the matrix with the appropriate scores from the previous pages. To calculate the score for each threat: multiply the scores for LR, T, and WC; divide the product by 82,500; and round the result to the nearest integer. The Drinking Water Threat and Human Food Chain Threat are each subject to a maximum of 100. The Environmental Threat is subject to a maximum of 60. Enter the rounded threat scores in the far-right column.

Surface Water Pathway Score

Sum the individual threat scores to determine the Surface Water Pathway Score. If the sum is greater than 100, assign 100.

SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY

WASTE CHARACTERISTICS	A Suspected Release	B No Suspected Release
14. A. If you have identified any primary target for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	(100 or 32)	
B. If you have NOT identified any primary target for surface water, assign the waste characteristics score calculated on page 4.	(100, 32, or 10)	(100, 32, or 10) 32
WC =		32

SURFACE WATER PATHWAY THREAT SCORES

Threat	*Likelihood of Release (LR) Score (from page 12)*	*Targets (T) Score (pages 12, 14, 15)*	*Pathway Waste Characteristics (WC) Score (determined above)*	*Threat Score LR x T x WC / 82,500*
Drinking Water	550	5	32	(subject to a maximum of 100) 1
Human Food Chain	550	210	32	(subject to a maximum of 100) 45
Environmental	550	25	32	(subject to a maximum of 60) 6

SURFACE WATER PATHWAY SCORE
(Drinking Water Threat + Human Food Chain Threat + Environmental Threat)
(subject to a maximum of 100) **52**

$$\frac{(550)(5)(32)}{82{,}500} = 1.06$$ ROUNDED TO NEAREST INTEGER $= 1$

$$\frac{(550)(210)(32)}{82{,}500} = 44.8 \qquad = 45$$

$$\frac{(550)(25)(32)}{82{,}500} = 5.33 \qquad = 6$$

52

SOIL EXPOSURE PATHWAY CRITERIA LIST

Areas of surficial contamination can generally be assumed. This "Criteria List" helps guide the process of developing a hypothesis concerning the exposure of specific targets to a hazardous substance at the site. Use the "Resident Population" section to evaluate site and source conditions that may help identify targets likely to be exposed to a hazardous substance. The check-boxes record your professional judgment. Answers to all of the listed questions may not be available during the PA. Also, the list is not all-inclusive; if other criteria help shape your hypothesis, list them at the bottom of the page or attach an additional page.

Check the boxes to indicate a "yes," "no," or "unknown" answer to each question.

SOIL EXPOSURE PATHWAY CRITERIA LIST

SUSPECTED CONTAMINATION	RESIDENT POPULATION
Surficial contamination can generally be assumed.	Yes / No / Unk
	☐ ☑ ☐ Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination?
	☐ ☑ ☐ Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator?
	☐ ☑ ☐ Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities?
	☐ ☐ ☑ Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems?
	☐ ☑ ☐ Does any neighboring property warrant sampling?
	☐ ☑ Other criteria?
	☐ ☑ **RESIDENT POPULATION IDENTIFIED?**

Summarize the rationale for Resident Population (attach an additional page if necessary):

NO SCHOOL, DAYCARE, OR RESIDENCE IS LOCATED WITHIN 200 FEET OF AN AREA OF SUSPECTED CONTAMINATION.

SOIL EXPOSURE PATHWAY SCORESHEET

Pathway Characteristics

Answer the questions at the top of the page. Identify people who may be exposed to a hazardous substance because they work at the facility, or reside or attend school or daycare on or within 200 feet of an area of suspected contamination. If the site is active, estimate the number of full and part-time workers. Note that evaluation of targets is based on current site conditions.

Likelihood of Exposure (LE)

1. Suspected Contamination: Areas of surficial contamination are present at most sites, and a score of 550 can generally be assigned as a default measure. Assign zero, which effectively eliminates the pathway from further consideration, only if there is no surficial contamination; reliable analytical data are generally necessary to make this determination.

Resident Population Threat Targets (T)

2. Resident Population corresponds to "primary targets" for the migration pathways. Use professional judgment guided by the Soil Exposure Pathway Criteria List (page 18) to determine if there are people living or attending school or daycare on or within 200 feet of areas of suspected contamination. Record the number of people identified as resident population and multiply by 10 to determine the Resident Population factor score.

3. Resident Individual: Assign 50 if you have identified a resident population; otherwise, assign zero.

4. Workers: Estimate the number of full and part-time workers at this facility and adjacent facilities where contamination is also suspected. Assign a score for the Workers factor from the table.

5. Terrestrial Sensitive Environments: In the table provided, list each terrestrial sensitive environment located on an area of suspected contamination. Use PA Table 7 (page 20) to assign a value for each. Sum the values and assign the total as the factor score.

6. Resources: A score of 5 can generally be assigned as a default measure. Assign zero only if there is no land resource use on an area of suspected contamination.

Sum the target scores.

Waste Characteristics (WC)

7. Enter the WC score determined on page 4.

Resident Population Threat Score: Multiply the scores for LE, T, and WC. Divide the product by 82,500. Round the result to the nearest integer. If the result is greater than 100, assign 100.

Nearby Population Threat Score: Do not evaluate this threat if you gave a zero score to Likelihood of Exposure. Otherwise, assign a score based on the population within a 1-mile radius (use the same 1-mile radius population you evaluate for air pathway population targets):

Population Within One Mile	Nearby Population Threat Score
< 10,000	1
10,000 to 50,000	2
> 50,000	4

Soil Exposure Pathway Score: Sum the Resident Population Threat score and the Nearby Population Threat score, subject to a maximum of 100.

SOIL EXPOSURE PATHWAY SCORESHEET

Pathway Characteristics	
Do any people live on or within 200 ft of areas of suspected contamination?	Yes ___ No ✓
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination?	Yes ___ No ✓
Is the facility active? Yes ___ No ✓ If yes, estimate the number of workers: ___	

LIKELIHOOD OF EXPOSURE

	Suspected Contamination	References
1. SUSPECTED CONTAMINATION: Surficial contamination can generally be assumed, and a score of 550 assigned. Assign zero only if the absence of surficial contamination can be confidently demonstrated. LE =	550	1

RESIDENT POPULATION THREAT TARGETS

	Suspected Contamination	References
2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or daycare on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18). 0 people x 10 =		4
3. RESIDENT INDIVIDUAL: If you have identified a resident population (factor 2), assign a score of 50; otherwise, assign a score of 0.	0	4
4. WORKERS: Use the following table to assign a score based on the total number of workers at the facility and nearby facilities with suspected contamination:	0	4
5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Use PA Table 7 to assign a value for each terrestrial sensitive environment on an area of suspected contamination: Sum =	0	4
6. RESOURCES	5	1
T =	5	

Number of Workers	*Score*
0	0
1 to 100	5
101 to 1,000	10
> 1,000	15

Terrestrial Sensitive Environment Type	*Value*
___	___
___	___

WASTE CHARACTERISTICS

7. Assign the waste characteristics score calculated on page 4. WC =	32	

RESIDENT POPULATION THREAT SCORE: $\frac{LE \times T \times WC}{82,500}$

$\frac{(500)(5)(32)}{82,500} = 1.06 = 1$ — **1**

NEARBY POPULATION THREAT SCORE:

5,498 (<10,000) = 1 — **1** — References: 1, 28

SOIL EXPOSURE PATHWAY SCORE:
Resident Population Threat + Nearby Population Threat — **2**

PA TABLE 7: SOIL EXPOSURE PATHWAY
TERRESTRIAL SENSITIVE ENVIRONMENT VALUES

Terrestrial Sensitive Environment	*Assigned Value*
Terrestrial critical habitat for Federally designated endangered or threatened species National Park Designated Federal Wilderness Area National Monument	100
Terrestrial habitat known to be used by Federally designated or proposed threatened or endangered species National Preserve (terrestrial) National or State terrestrial Wildlife Refuge Federal land designated for protection of natural ecosystems Administratively proposed Federal Wilderness Area Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	75
Terrestrial habitat used by State designated endangered or threatened species Terrestrial habitat used by species under review for Federal designated endangered or threatened status	50
State lands designated for wildlife or game management State designated Natural Areas Particular areas, relatively small in size, important to maintenance of unique biotic communities	25

AIR PATHWAY CRITERIA LIST

This "Criteria List" helps guide the process of developing a hypothesis as to whether a release to the air is likely to be detected. The check-boxes record your professional judgment. Answers to all of the listed questions may not be available during the PA. Also, the list is not all-inclusive; if other criteria help shape your hypothesis, list them at the bottom of the page or attach an additional page.

The "Suspected Release" section identifies several conditions that could provide insight as to whether a release from the site is likely to be detected. If a release is suspected, primary targets are any residents, workers, students, and sensitive environments on or within ¼ mile of the site.

Check the boxes to indicate a "yes," "no," or "unknown" answer to each question. If you check the "Suspected Release" box as "yes," make sure you assign a Likelihood of Release value of 550 for the pathway.

AIR PATHWAY CRITERIA LIST

SUSPECTED RELEASE				PRIMARY TARGETS
Yes	No	Unk		
☐	☑	☐	Are odors currently reported?	If you suspect a release to air, evaluate all populations and sensitive environments within 1/4 mile (including those onsite) as primary targets.
☐	☑	☐	Has release of a hazardous substance to the air been directly observed?	
☐	☐	☑	Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air?	
☐	☑	☐	Does analytical or circumstantial evidence suggest a release to the air?	
☐	☑		Other criteria?________	
☐	☑		**SUSPECTED RELEASE?**	

Summarize the rationale for Suspected Release (attach an additional page if necessary):

A RELEASE TO AIR IS NOT SUSPECTED

AIR PATHWAY SCORESHEET

Pathway Characteristics

Answer the questions at the top of the page. Refer to the Air Pathway Criteria List (page 21) to hypothesize whether you suspect that a hazardous substance release to the air could be detected. Due to dispersion, releases to air are not as persistent as releases to water migration pathways and are much more difficult to detect. Develop your hypothesis concerning the release of hazardous substances to air based on "real time" considerations. Record the distance (in feet) from any source to the nearest regularly occupied building.

Likelihood of Release (LR)

1. Suspected Release: Hypothesize based on professional judgment guided by the Air Pathway Criteria List (page 21). If you suspect a release to air, use only Column A for this pathway and do not evaluate factor 2.

2. No Suspected Release: If you do not suspect a release, enter 500 and use only Column B for this pathway.

Targets (T)

3. Primary Target Population: Evaluate populations subject to exposure from release of a hazardous substance from the site. If you suspect a release, the resident, student, and worker populations on and within ¼ mile of the site are considered primary target population. If only the number of residences is known, use the average county residents per household (rounded up to the next integer) to determine the population. In the space provided, enter this population. Multiply the population by 10 to determine the Primary Target Population score. Note that if you do not suspect a release, there can be no primary target population.

4. Secondary Target Population: Evaluate populations in distance categories not suspected to be subject to exposure from release of a hazardous substance from the site. If you suspect a release, residents, students, and workers in the ¼- to 4-mile distance categories are secondary target population. If you do not suspect a release, all residents, students, and workers onsite and within 4 miles are considered secondary target population.

Use PA Table 8 (page 23). Enter the population in each secondary target population distance category, circle the assigned value, and record it on the far-right side of the table. Sum the far-right column and enter the total as the Secondary Target Population factor score.

5. Nearest Individual represents the threat posed to the person most likely to be exposed to a hazardous substance release from the site. If you have identified a primary target population, enter 50. Otherwise, assign the score from PA Table 8 (page 23) for the closest distance category in which you have identified a secondary target population.

6. Primary Sensitive Environments: If a release is suspected, all sensitive environments on or within ¼ mile of the site are considered primary targets. List them and assign values for sensitive environment type (from PA Table 5, page 16) and/or wetland acreage (from PA Table 9, page 23). Sum the values and enter the total as the factor score.

7. Secondary Sensitive Environments: If a release is suspected, sensitive environments in the ¼- to ½-mile distance category are secondary targets; greater distances need not be evaluated because distance weighting greatly diminishes the impact on site score. If you do not suspect a release, all sensitive environments on and within ½ mile of the site are considered secondary targets. List each secondary sensitive environment on PA Table 10 (page 23) and assign a value to each using PA Tables 5 and 9. Multiply each value by the indicated distance weight and record the product in the far-right column. Sum the products and enter the total as the factor score.

8. Resources: A score of 5 can generally be assigned as a default measure. Assign zero only if there is no land resource use within ½ mile.

Sum the target scores in Column A (Suspected Release) or Column B (No Suspected Release).

Waste Characteristics (WC)

9. Waste Characteristics: Score is assigned from page 4. However, if you have identified any primary target for the air pathway, assign either the score calculated on page 4 or a score of 32, whichever is greater.

Air Pathway Score: Multiply the scores for LR, T, and WC. Divide the product by 82,500. Round the result to the nearest integer. If the result is greater than 100, assign 100.

AIR PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Air Pathway Criteria List, page 21)?	Yes ___ No ✓
Distance to the nearest individual:	~500 ft

LIKELIHOOD OF RELEASE	A *Suspected Release*	B *No Suspected Release*	*References*
1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550. Use only column A for this pathway.	(550)		___
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500. Use only column B for this pathway.		(500) 500	4,8
LR =		500	

TARGETS	A	B	References
3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a suspected release of hazardous substances to the air. 0 people x 10 =	0		4,8
4. SECONDARY TARGET POPULATION: Determine the number of people not suspected to be exposed to a release to air, and assign the total population score using PA Table 8.		26	1,28
5. NEAREST INDIVIDUAL: If you have identified any Primary Target Population for the air pathway, assign a score of 50; otherwise, assign the Nearest Individual score from PA Table 8.	(50, 20, 7, 2, 1, or 0)	(20, 7, 2, 1, or 0) 20	1,28
6. PRIMARY SENSITIVE ENVIRONMENTS. Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from a suspected release to the air. Sum =	0		
7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.		0	35,38
8. RESOURCES	(5 or 0)	(5 or 0) 5	1
T =		51	

Sensitive Environment Type	*Value*

WASTE CHARACTERISTICS	A	B
9. A. If you have identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	(100 or 32) -	
B. If you have NOT identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4.	(100, 32, or 18)	(100, 32, or 18) 32
WC =		32

AIR PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82{,}500}$$

(subject to a maximum of 100) **10**

$$\frac{(500)(51)(32)}{82{,}500} = 9.89$$

ROUNDS UP TO NEAREST INTEGER = 10

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

Distance from Site	Population	Nearest Individual (choose highest)	Population Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	Greater than 1,000,000	Population Value
Onsite	0	20	1	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	0
>0 to ¼ mile	167	20	1	1	1	4	13	41	130	408	1,303	4,081	13,034	40,811	4
>¼ to ½ mile	1241	2	0	0	1	1	3	9	28	88	282	882	2,815	8,815	9
>½ to 1 mile	4090	1	0	0	0	1	1	3	8	26	83	261	834	2,612	8
>1 to 2 miles	9644	0	0	0	0	0	1	1	3	8	27	83	266	833	3
>2 to 3 miles	7195	0	0	0	0	0	1	1	1	4	12	38	120	376	1
>3 to 4 miles	2995	0	0	0	0	0	0	1	1	2	7	23	73	229	1

Nearest Individual = 20

Score = 26

2000 CENSUS

PA TABLE 9: AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150 acres	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	250
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value (from PA Table 5 or 9)	Product
Onsite	0.10	x	
		x	
0-1/4 mi	0.025	x	
		x	
		x	
1/4-1/2mi	0.0054	x	
		x	
		x	
		x	

Total Environments Score = 0

SITE SCORE CALCULATION

In the column labeled S, record the Ground Water Pathway score, the Surface Water Pathway score, the Soil Exposure Pathway score, and the Air Pathway score. Square each pathway score and record the result in the S^2 column. Sum the squared pathway scores. Divide the sum by 4, and take the square root of the result to obtain the Site Score.

SUMMARY

Answer the summary questions, which ask for a qualitative evaluation of the relative risk of targets being exposed to a hazardous substance from the site. You may find your responses to these questions a good cross-check against the way you scored the individual pathways. For example, if you scored the ground water pathway on the basis of no suspected release and secondary targets only, yet your response to question #1 is "yes," this presents apparently conflicting conclusions that you need to reconsider and resolve. Your answers to the questions on page 24 should be consistent with your evaluations elsewhere in the PA scoresheets package.

SITE SCORE CALCULATION

	S	S^2
GROUND WATER PATHWAY SCORE (S_{gw}):	100	10,000
SURFACE WATER PATHWAY SCORE (S_{sw}):	52	2,704
SOIL EXPOSURE PATHWAY SCORE (S_s):	2	4
AIR PATHWAY SCORE (S_a):	10	100
SITE SCORE: $\sqrt{\frac{S_{gw}^2+S_{sw}^2+S_s^2+S_a^2}{4}}$		56.6

SUMMARY

	YES	NO
1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water?	☐	☑
A. If yes, identify the well(s). ______		
B. If yes, how many people are served by the threatened well(s)? ______		
2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?		
A. Drinking water intake	☐	☑
B. Fishery	☐	☑
C. Sensitive environment (wetland, critical habitat, others)	☐	☑
D. If yes, identify the target(s). ______		
3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility?	☐	☑
If yes, identify the property(ies) and estimate the associated population(s). ______		
4. Are there public health concerns at this site that are not addressed by PA scoring considerations? If yes, explain: ______	☐	☑