

# SECTION B

## FACILITY DESCRIPTION

Revision No.

5.0

# SECTION B

## FACILITY DESCRIPTION

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## APPENDIX B-2

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### Load-Bearing Capacity Calculations

## SECTION B

### FACILITY DESCRIPTION

This section provides a general description of the hazardous waste management facility near Emelle, Alabama, owned and operated by Chemical Waste Management, Inc. (CWM), as required by 40 CFR 270.14(b) (10), (11), and (19) and ADEM Administrative Code Rules 335-14-8-.02(5)(b) 10., 11., and 19.. Included are the location and geographical setting, physical layout, general waste management operations, and traffic patterns of the Facility. Further details can be found in subsequent sections of this Application.

#### B-1 Location and Geographical Setting

The Facility is located in Sumter County, Alabama, at latitude 32°47'30" and longitude 88°18'45". This location is approximately 3 miles east of the Mississippi state line and approximately 5 miles north of Emelle, Alabama, on State Highway 17, at approximately mile marker 163. Figure B-1, Site Location Map, in Appendix B-2, shows the location of the Facility. The legal boundaries of the Facility are provided on Drawing No. 00-110-000, Boundary Survey in Appendix B-1.

The Facility is located in a rural, sparsely populated region of Alabama. The population of Sumter County is 13,763. The land uses surrounding the Facility are farm, pasture, and woodlands. The nearest towns are Emelle (population 51, 5 miles south), Geiger (population 165, 4 miles north), Gainesville (population 201, 9 miles east), and Livingston (population 3,506, 20 miles southeast).

#### B-2 Topographic Maps

The topography of the Facility and a surrounding 1,000-foot halo is shown in Drawing Numbers 00-110-001, -002, -003, and -004, Topographic Maps, in Appendix B-1. The topographic maps consist of four matched-line sheets at a scale of 1 inch = 300 feet. Drawing Number 00-110-005, Topographic Map Active Area, in Appendix B-1, is a single sheet which covers only the active portion of the Facility at a scale of 1 inch = 300 feet.

Ground surface elevations range from highs of 300 feet above mean sea level (MSL) to lows of 120 feet above MSL. The western two-thirds of the site gently slope westward and northwestward toward Bodka Creek, which forms a part of the northwestern boundary of the site. The eastern one-third of the site slopes southeastward toward a drainage area in the Factory Creek watershed. The major divide of these drainage areas is shown on the maps. Bodka Creek and Factory Creek, intermittent streams, are the only major surface waters adjacent to or in the vicinity of the site. There is a small lake outside of the northeast corner of

the active site and another small lake outside of the western boundary. Both lakes are fed by surface run-off.

5 The watershed areas and the major drainage channels on the Facility are shown on Drawing Number 00-110-005 in Appendix B-1. Because the construction of landfill cells and other construction operations produce sediment in surface run-off, the run-off is routed to sediment basins to prevent the discharge of the sediment into Bodka and Factory Creeks. These sediment basins are not hazardous waste management units, and therefore are only regulated under the State of Alabama NPDES program. The Facility is authorized to discharge storm  
10 water from the sediment basins in accordance with NPDES Permit No. AL0050580.

State Highway 17, a two-lane highway, bisects the Facility. This highway provides the only public access to the Facility.

15 The fences surrounding the Facility are shown on drawing No. 00-110-005, in Appendix B-1, and Figure B-3 in Appendix B-2. All gate locations are identified in Figure G-5. Also, the surrounding land uses are shown on Drawing Numbers 00-110-001 through -004, in Appendix B-1. There are several structures immediately outside the site boundary, but none of these are occupied as residences (they are barns or vacant buildings).

20 There are Eutaw aquifer groundwater monitoring wells on the Facility. Further details on these wells are provided in Section E of this Application.

No injection wells exist on the Facility or within 1/4 mile of its boundaries.

25 Drawing Numbers 00-110-001 through -005, in Appendix B-1, show the locations of (1) the hazardous waste unloading/loading areas, (2) the major fire control facilities (3) the run-off control systems (4) the location of the hazardous waste management units, and (5) the access and internal roads.

30 The prevailing direction and speed of winds in the area (as measured at Meridian, Mississippi, 38 miles southwest) are depicted in the wind rose provided in Figure B-2 and are shown in relation to the Facility on Figure B-3, Facility Layout, of Appendix B-2.

### 35 **B-3 Location Information**

#### **B-3a Seismic Standard**

The Facility is located in a jurisdiction that is not listed in Appendix VI of 40 CFR Part 264. Therefore, the Facility complies with the requirements of 40 CFR 264.18(a).

### **B-3b Floodplain Standard**

A portion of the Facility property is located in the 100-year floodplain of Bodka Creek (See Figures A-1-3 and A-1-4 in Appendix A-1 of this Application)<sup>1</sup>. However, the Facility does not intend to use this area for management of wastes. Because no washout of hazardous waste by the 100-year flood will be possible, the Facility believes that it complies with the requirement of 40 CFR 264.18(b).

### **B-4 Physical Layout of Facility**

The Facility boundary encompasses approximately 2,630 acres of land, as shown on Drawing Number 00-110-000 in Appendix B-1. Most of the active treatment and storage units, and appurtenant buildings and structures are located on the eastern portion of the site on approximately 802 acres of the Facility, as depicted in Figure B-3 in Appendix B-2. The principal features of the Facility that are regulated under RCRA are:

- containerized waste storage and processing units;
- bulk liquids unloading and loading stations, and tank storage units for storing and treating waste to be further processed or disposed on-site or trans-shipped off-site;
- waste neutralization and stabilization units for treatment of waste prior to disposal;
- land disposal trenches with associated leachate storage tanks;
- a series of closed landfill trenches and an associated leachate storage tank containing hazardous wastes; and
- containment buildings for storage and treatment of waste for disposal on-site or trans-shipment off-site.

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<sup>1</sup> This flood plain is taken from Flood Insurance Rate Map, Sumter County, Alabama and Incorporated Areas Map Number 01119C0075D effective 4/3/2012.

In addition to the RCRA regulated units, there are various unregulated support units, including offices, laboratories, an employee shower and locker room, maintenance buildings and shops, truck scales, utilities, etc.

- 5 The Facility conducts landfill disposal activities. The location and size of landfill disposal units are discussed in Section D-6 of the Application.

There are also several features of the Facility involved in the management of PCB wastes regulated under the Toxic Substance Control Act (TSCA). The physical features of the Facility that manage PCB wastes regulated under TSCA (40 CFR Part 761) are:

- PCB waste unloading and loading, storage, and processing units; and
- Several closed landfill trenches containing PCB wastes and the active landfill trenches.

15 These TSCA-related activities are discussed throughout this Application, as the Facility utilizes this Application as supporting information for the Facility's TSCA permit application. The Facility has TSCA authority from Region IV EPA under permit number ALD000622464 to dispose of TSCA waste in Trench 22 and Trench 23. In addition, disposal of PCBs in closed Trench 21 was also allowed by the Facility's TSCA permit. The waste management units that are regulated by RCRA and TSCA are noted in Figure B-3, Facility Layout, in Appendix B-2.

## **B-5 Waste Management Operations**

This subsection provides a general description of the waste management procedures followed at the Facility. Reference is made to Figure B-4, an Operations Flow Sheet, in Appendix B-2, which provides general illustrations of most of the more frequent flow paths for managing waste at the Facility. Additional information on waste management procedures is provided in Sections C, D, and F of this Application.

### **B-5a Waste Receiving and Acceptance**

Prior to the shipment of any waste by the generators, and prior to the Facility receiving, storing, or processing any waste, certain pre-acceptance procedures are completed (See Section C of this Application). The receipt of waste at the Facility is managed through a sequential or staged process. In general, there are four stages to this process as described below:

### **Stage 1 Initial Receipt**

All wastes (Flow Path 1) are received at the Scales (Unit 207), where the waste loads are weighed<sup>2</sup> and general components of the manifests are checked. The date, time and weight of the delivery vehicle are recorded to mark the initial receipt of the waste.

### **5 Stage 2 Designated Parking**

After the initial receipt at the Facility and based on the type and size of the delivery container, the waste delivery vehicle is directed to a designated waste receiving and parking area PK-700 or PK-1000, or to an applicable SWMU to await further review of the manifest and other documentation. Normally, shipments of containerized waste  
10 (i.e., both bulk and small size) are only held in the parking areas for 72 hours or less before being moved to a regulated waste management unit.

### **Stage 3 Storage Unit**

From the designated parking areas, shipments of containerized waste are moved to regulated waste management units based on the waste and the type and size of the  
15 delivery container. When moved to container storage units, containers are unloaded and moved to containment areas for staging (i.e., held within the confines of a segregated secondary spill containment system in a regulated waste management unit to await receiving, acceptance verification, and approvals). During staging, containers are received, sampled, analyzed and segregated by compatibility groups in compliance  
20 with Department of Transportation (DOT) classifications (See the Waste Analysis Plan in Section C of this Application). Within 72 hours of placement into a storage unit, the containers will be sampled.

### **Stage 4 Acceptance**

25 Acceptance of the waste occurs when the manifest and other supportive documentation is complete and acceptable, after sampling has been completed, and after the analyses of the samples indicate that the waste is acceptable in accordance with the Waste Analysis Plan provided in Section C of this Application.

30 During acceptance verification and after acceptance, the management of waste will depend on the type of container in which the waste is shipped, the type of delivery vehicle, the type of waste within the container, the operational status of certain waste storage and management units, and the status and location of parking areas. This dependency is reflected in the Operations Flow Sheet (i.e., Figure B-4 in Appendix B-2) by the various combinations of flow  
35 paths illustrated in this figure. In accordance with the above described receiving and acceptance

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<sup>2</sup> This may actually be accomplished by weighing the truck at entry and again at exit after it is unloaded or weighing the truck at entry and subtracting the known tare weight of the truck.



stages, trucks carrying bulk containers of liquids or sludges then proceed to the unloading stations serving the tank storage or processing units (Flow Path 4). Loads of bulk containerized solid wastes can be directed to a container management unit or can proceed directly to a landfill, a stabilization unit, or a containment building (Flow Path 5). Shipments of small containers of waste proceed to one of the container storage units where they are off-loaded, and the containers are counted, and staged, sampled, and analyzed (Flow Path 3)<sup>3</sup> in accordance with the receiving and acceptance procedures. The procedures for sampling and analyzing incoming wastes are described in the Waste Analysis Plan, Section C of this Application.

### **B-5b Container Management**

After completion of waste receiving and acceptance procedures, containers of waste are unloaded and segregated by chemical compatibility among the various container storage units and treatment units located throughout the Facility. Small containers holding liquids and pumpable sludges are transferred from container storage to the decanting units (Flow Path 7) so that liquids can be segregated and placed in a tanker or in tank storage for subsequent management (Flow Path 8). Decanted empty hazardous waste containers are rinsed, if necessary, and may be crushed or shredded and disposed in the landfill, or sent off-site for recovery. Containers holding solid wastes are transferred to the appropriate designated treatment or disposal unit at the Facility. Incinerable containerized solids are sent off-site for incineration (Flow Path 3). Organic aqueous wastes are shipped off-site for incineration (Flow Paths 12, 13, and 21). Wastes amenable to debris treatment (Flow Path 5) are directed to Units 700, 1200A, 2000, or directly to the active landfill cell (large debris to be macro-encapsulated). Wastes suitable for landfilling are transferred to the currently active landfill cell (Flow Path 6).

### **B-5c Tank Management**

The liquid wastes segregated in the waste management steps described above are accumulated in an appropriate waste tanker or storage tanks for subsequent treatment. Recoverable organic solvents are stored in tanks segregated according to types. These liquid organic wastes are subsequently sent to off-site solvent recovery facilities for reclamation (Flow Path 11).

Other liquid hazardous wastes are stored in the appropriate storage tanks and subsequently transferred either to off-site incineration (Flow Path 13), on-site stabilization (Flow Path 13), or off-site deep well injection (Flow Path 17). If the waste is aqueous, it may be treated by on-site stabilization, neutralization, or oxidation/reduction (Flow Path 15).

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<sup>3</sup> The transport vehicles may be held until all counting, sampling, and analysis of off-loaded containers are completed and the shipment is accepted. If all or part of a shipment is rejected, the rejected containers are reloaded on a transport vehicle and may be returned to shipper (Flow Path 2).

Rainwater and liquids that collect in secondary containment systems (Flow Path 19) and any contaminated wheel wash waters are also sent to the appropriate tank storage units (Flow Path 15).

#### 5 **B-5d Waste Treatment**

Wastes are treated at the Facility in several possible ways. Corrosive liquid wastes (Flow Path 14) are neutralized and stored in tanks and subsequently treated further. Landfill leachate is treated in the Leachate Treatment Plant (Flow Path 17) and used for dust suppression, as slurry water for Stabilization (Flow Path 22), or transferred off-site for deep well injection or treatment. Leachate solids removed in the Leachate Treatment Plant (Flow Path 24) are shipped off-site for incineration.

#### **B-5e Solvent Recovery**

Solvent wastes are segregated and sent off-site for subsequent solvent recovery (Flow Path 11) or reclamation.

#### 15 **B-5f Landfill Disposal**

Wastes disposed in the Facility's landfill include those bulk and containerized solid wastes not restricted from land disposal under 40 CFR Part 268, and ADEM Administrative Code Rule 335-14-9 (Flow Paths 5 and 6), as well as any treatment residuals generated on-site that are suitable for land disposal, stabilized waste (Flow Path 16), and debris treatment residuals (Flow Path 23).

#### **B-5g Non-Hazardous Waste Management**

The Facility generates sanitary wastewaters (Flow Path 20) which are conveyed to a Publically Owned Treatment Works (POTW). Stormwater run-off from areas of the Facility where the run-off does not come into contact with hazardous wastes (Flow Path 18) is intercepted by several sediment basins. Uncontaminated stormwater is discharged to Bodka or Factory Creek (Flow Path 18) in accordance with the NPDES Permit Number AL0050580 or used onsite (e.g. truck wash, dust suppression, irrigation, etc.). Contact water which does not percolate through waste may be captured and tested. If clean, contact water may be conveyed to a clean site-water storage tank (Flow Path 25) and used onsite (e.g., in the wheel wash, irrigation, or dust suppression) (Flow Path 22). If the contact water fails, it will be treated as F039 and will require treatment (Flow Path 26). The Facility also manages non-hazardous and special solid wastes. These wastes are managed in containers within the waste management units and disposed of in the landfill trench.

## B-6 Traffic Patterns

Vehicular traffic on the Facility consists of trucks delivering wastes, trucks delivering non-waste materials (e.g., cement kiln dust, fuel etc.) and supplies, heavy equipment traffic, and light vehicles (e.g., automobiles or pick-up trucks driven by Facility supervisory or operating personnel, and others as authorized by the Facility). Drivers of trucks delivering wastes or materials are given instructions on parking areas and travel routes.

### B-6a Waste Delivery Traffic

The greatest volume of traffic on the Facility is created by trucks delivering wastes. These typically are tractor-trailer vehicles, where the trailer is either a closed van, flatbed, roll-off, tanker, or end-dump unit. Dual scales are provided so that one scale can be used for weighing incoming trucks and the other for weighing outgoing trucks. In case one of the two scales is out of service, incoming and outgoing shipments can be sequenced through a single scale.

The principal internal traffic patterns used by trucks delivering wastes to the Facility are shown in Figures B-5, B-6 and B-7 in Appendix B-2. Trucks delivering containerized wastes within the Facility travel on designated paved or unpaved roads.

Figure B-5, Containerized Waste Receiving, in Appendix B-2, illustrates the general traffic routes of trucks (principally van, tanker, roll-off, and flat-bed trailer trucks) delivering containerized wastes<sup>4</sup>. After passing initial receiving procedures and being weighed at the scales, loads of bulk containers and small containers may respectively proceed to parking area PK-1000 or parking area PK-700, where they may be held (i.e., in accordance with the receiving and acceptance procedures described in Subsection B-5a) before being directed to one of the container storage units. Subsequent vehicular conveyance of containerized wastes (e.g., containerized solid wastes) is part of on-site waste transfer shown in Figure B-8, On-Site Transfer, in Appendix B-2.

The general traffic pattern for tank trucks delivering bulk liquid and sludge wastes is shown in Figure B-6, Bulk Liquid and Sludge Receiving, in Appendix B-2. After receiving at the main gate and being weighed at the scales, these trucks proceed to bulk sampling where they are sampled. After waste sampling is completed, these trucks are held in the parking area PK-1000 or proceed to one of the tank storage areas for unloading or to one of the bulk container management units as described in Subsection B-5a. All bulk liquid unloading occurs within secondary containment. Some aqueous wastes from certain storage tank areas may subsequently be transferred by tanker truck off-site for treatment or disposal.

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<sup>4</sup> These traffic patterns may be slightly altered over the life of the Permit.

Figure B-7, Bulk Solids Receiving, in Appendix B-2, portrays the general traffic routes of trucks (principally dump trailer and roll-off container trucks) delivering bulk solid wastes. After main-gate receiving and weighing at the scales, these trucks go to bulk sampling and the parking area PK-1000 as described in Subsection B-5a. When accepted, they proceed to either one of the bulk container storage units (i.e., Units 406, 700, 1200A or 2200), the bulk treatment unit (i.e., Unit 1200A), or the operating landfill trench where they enter the trench and off-load. Landfill off-loading occurs in specially prepared areas of the trench that are not contaminated.

Figure B-8, On-Site Transfer, in Appendix B-2, shows the general traffic routes of on-site transfers of waste. From Units 700 and 702, containerized solid wastes, solids removed from decanted containers, and empty containers are transferred to the operating landfill trench, the Debris Treatment Units, the Stabilization Units, or to other container management units (e.g., Units 406, 603, 604, or 2200). Decanted liquids are transferred by pipeline or by tank trailer to Tank Farm Number 4 (Unit 1400) or to the Stabilization Unit 1200A. From the Stabilization Units and Debris Treatment Units, stabilized wastes and treated wastes are transported to one of the bulk container storage units (e.g., 406 or 2200) or to the landfill trenches.

### **B-6b Materials Delivery Traffic**

The general traffic pattern for delivery of treatment reagents is essentially the same as that for bulk solid waste deliveries (See Figure B-7). Other materials delivered to the site are principally fuels, construction materials, and other supplies. This traffic is comparatively light, and deliveries are principally confined to points within the active area of the Facility.

### **B-6c Heavy Equipment Traffic**

The majority of heavy equipment traffic is confined to areas of the Facility where disposal trenches are being operated. Heavy equipment traffic patterns are depicted in Figure B-9, Heavy Equipment Movement, in Appendix B-2. The traffic patterns of this equipment may vary to accommodate the status and patterns of trench development and other Facility operations.

### **B-6d Light Vehicle Traffic**

Light vehicle traffic patterns vary considerably. This traffic is almost exclusively composed of site vehicles, principally pick-up trucks.

### **B-6e Landfill Traffic**

Vehicles transporting waste to the active landfill cell travel along roadways that are designated by appropriate signs. Haul ramps are provided in each landfill cell for ingress and egress (See Section D-6 of this Application.). Traffic patterns on the floor of the cell vary depending on the sections of the cell being operated at any one time. The landfill personnel control and direct

in-cell traffic to avoid congestion and unsafe conditions and to maintain that vehicles travel on specific surfaces to assure waste is not tracked beyond the limits of the landfill. Within the cell, waste transport vehicles travel on surfaces covered by the intermediate cover to avoid tracking waste beyond the limits of the disposal unit. Additional information on the operation of the landfill cell is provided in Section D-6 of this Application. The travel of waste delivery vehicles leaving the landfill is restricted to roadways that are designated by appropriate signs that direct the vehicle to exit through the Wheel Wash Unit 900.

### **B-6f Shipments Off-Site**

The Facility transfers waste off-site for recovery, reuse, and treatment. Waste that is generated at the Facility may also be shipped off-site for recovery, reuse, and treatment. In all cases waste that is shipped off-site is manifested and managed in accordance with the applicable regulations. Outgoing shipments are arranged and loaded at the container management units. The off-site shipment is then moved to one of the container storage units (i.e., Units 406, 700, or 2200) where waste manifests and other documentation are prepared. Once the manifests and shipping papers are complete, a transporter will sign the manifest and the waste is then approved to exit the Facility.

### **B-6g Traffic Control**

Traffic control signs (e.g., Stop, Yield, Speed Limit, Do Not Enter, Evacuation Route) are posted at points along the Facility's roads to provide instruction and restricted controls on specific roadways. Traffic control signs will vary as Facility roadways are developed or adjusted.

### **B-6h Load-Bearing Capacities**

Currently, the Facility maintains two types of roadway structures, paved surfaces and unpaved surfaces. The paved surfaces generally are comprised of several layers of asphaltic cement compressed over recompacted chalk. The unpaved surfaces consist primarily of recompacted chalk over natural chalk, with load-bearing capacities exceeding 7,500 pounds per square foot. Occasionally, gravel may be added to the unpaved surface to improve maneuverability during damp weather. The paved surfaces are not provided for structural integrity of the road bed, as the bare recompacted chalk is more than adequate to support the heaviest traffic. The paved surface is provided to minimize the site's internal maintenance along fixed high traffic areas. Temporary access roads, construction roads, and haul roads are maintained as unpaved surfaces, as their location is constantly changing. Figure B-10, Paved and Unpaved Roads, in Appendix B-2, depicts both the paved and unpaved surfaces used by waste-loaded vehicles at the Facility. Detailed calculations confirming the load-bearing capacities of each of the road types are provided in Appendix B-3, Load-Bearing Capacity Calculations.

## **B-7 Management Areas for Equipment Removed During Closure**

In accordance with the requirements of Appendix I-10 to Section I of this Application, potentially reusable or salvageable equipment that has come in contact with hazardous or toxic waste and is not placed into hazardous waste service at the Facility after cleansing (in accordance with the procedures provided within an approved partial closure plan for a unit or final closure plan for the Facility), shall be identified and placed into one of the following designated storage areas which are indicated on Figure B-3 in Appendix B-2 to this section:

- Heavy Equipment Maintenance Unit Number 300;
- Container Storage Unit Number 406 (i.e., in non-regulated areas of this unit prior to modification through the Part B Permit);
- Central Inventory Unit Number 605;
- Facility Maintenance Shop Unit Number 606.

## **B-8 Closed Hazardous Waste Management Units**

Figure B-11 in Appendix B-2 illustrates the locations of the following types of closed hazardous waste management units at the Facility as of March 2015:

- units closed in-place prior to November 19, 1980 (the effective date of the RCRA regulations);
- units closed in-place that did not receive waste after July 26, 1982;
- units closed in-place that received waste after July 26, 1982, but were certified closed on or before January 26, 1983;
- units clean closed; and
- units approved for closure

Additional information on closed hazardous waste management units and other solid waste management units at the Facility is provided within Sections I and L of this Application.

[End of Section B Text]

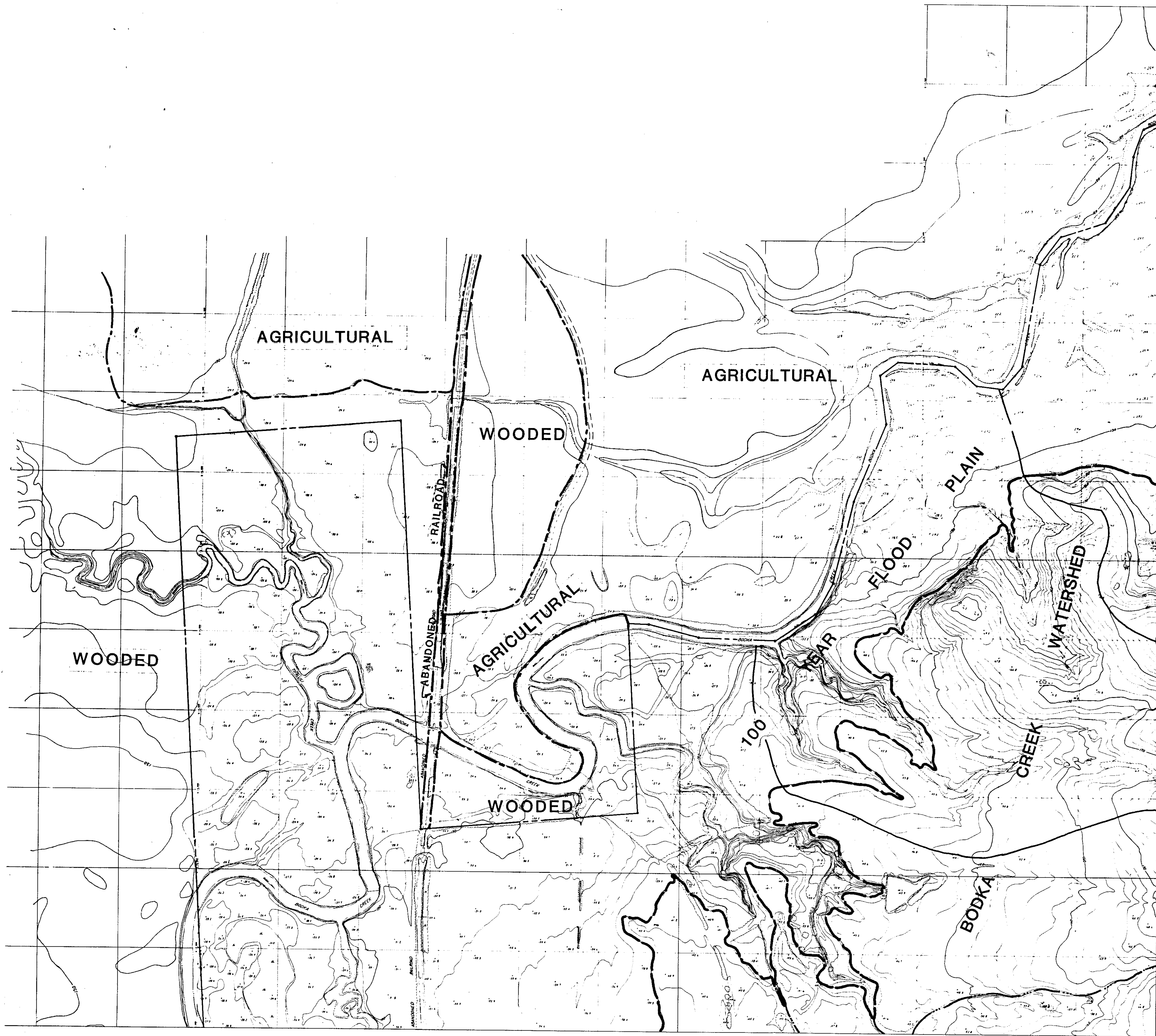
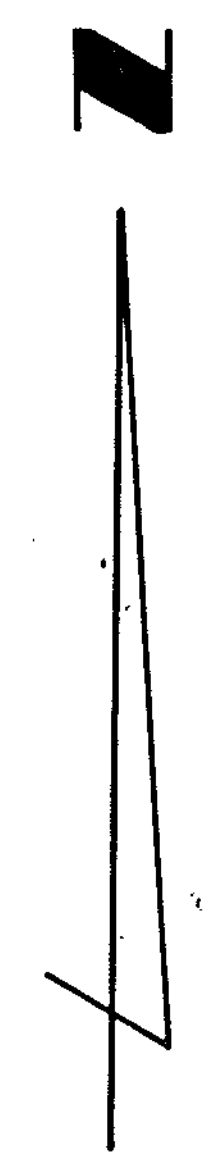
**APPENDIX B-1**

**SECTION B**

**DRAWINGS**







**LEGEND**

- PROPERTY LINE
- STREAMS AND MAJOR SURFACE DRAINAGE CHANNELS
- SUBWATERSHED DIVIDES

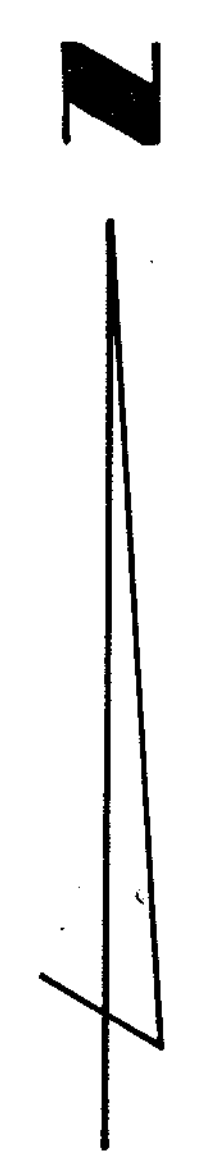
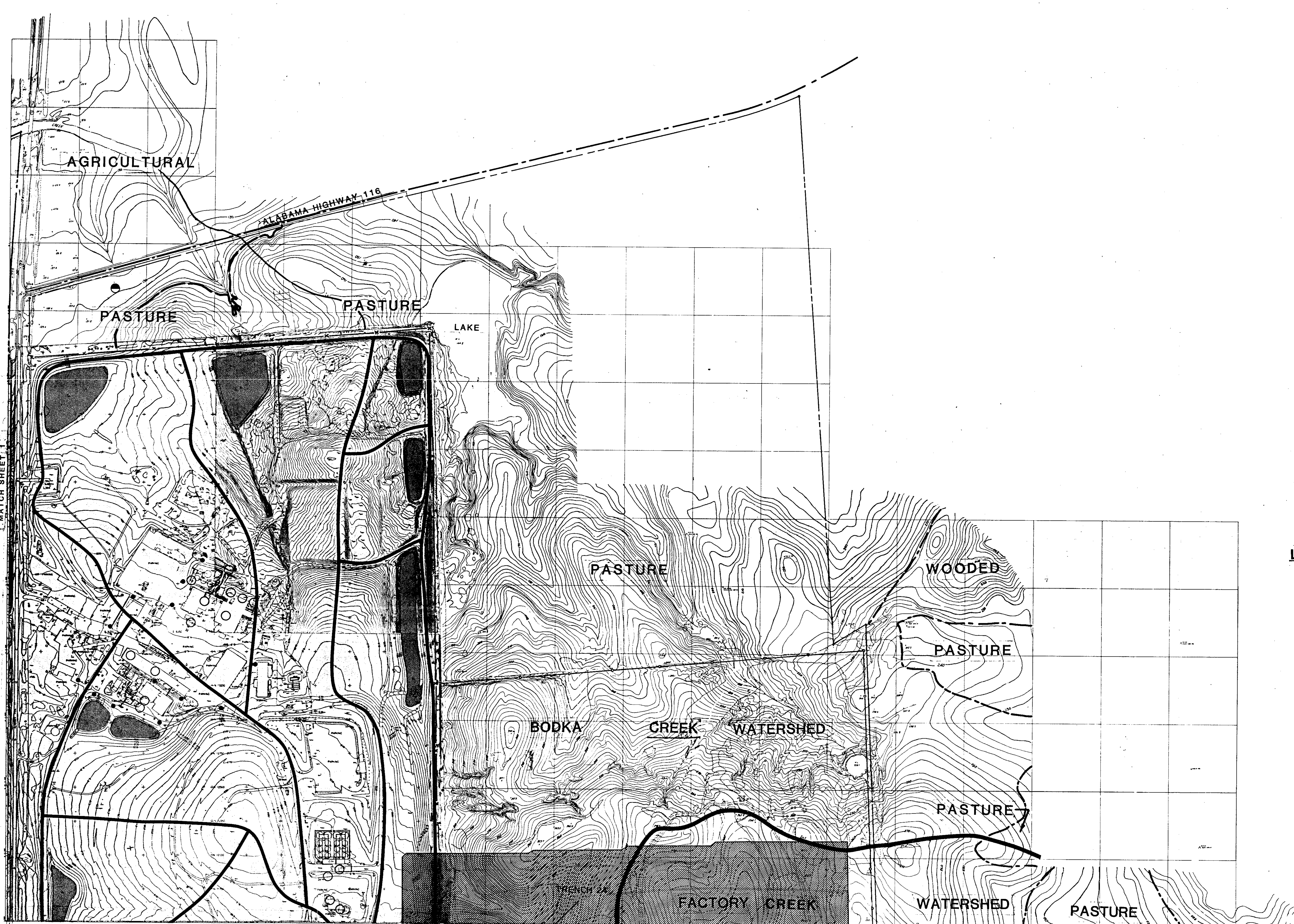


**NOTES:**

1. BASEMAP PROVIDED BY CHEMICAL WASTE MANAGEMENT, INC. DATE OF AERIAL PHOTOGRAPHY DECEMBER, 1982.
2. FLOOD PLAIN INFORMATION FROM SUMTER COUNTY FLOOD HAZARD BOUNDARY MAP - COMMUNITY - PANEL NO. 010194-0002A (1978).
3. THE CURRENT 100-YEAR FLOOD PLAIN IS SHOWN ON ATTACHMENTS A-1-3 AND A-1-4.
4. THE PROPERTY BOUNDARY AS SHOWN IN THIS DRAWING IS NO LONGER CURRENT. THE CURRENT FACILITY PROPERTY BOUNDARY IS SHOWN IN DRAWING 00-110-000.

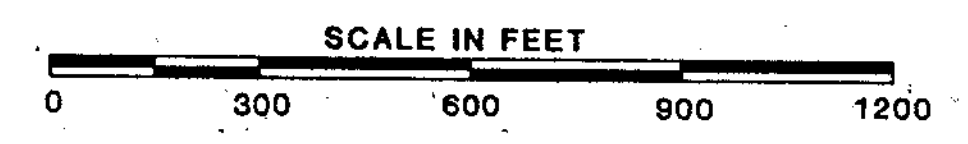


REV.	DATE	DESCRIPTION	DR BY	APP BY
2	7/26/90	REMOVED WASTE TREATMENT DISCHARGE POINT	JLW	JEF
1	3/17/84	FACILITIES ADDED	CAB	JEB
SCALE: AS SHOWN		PROJECT NO.		
FILE NO. 824-1308		PROJECT: EMELLE FACILITY		
DES BY	JEB	7/7/83	SHEET TITLE:	
DR BY	SKB	7/20/83	TOPOGRAPHIC MAP	
CHK BY	JEB	3/8/84	SHEET 1 OF 4	
APP BY	JEB	3/8/84	DRAWING NO.	
Chemical Waste Management, Inc.		00-110-001		
Oak Brook, Illinois 60521		Permit Drawing Rev. 5.0		



**LEGEND**

- x—x—x EXISTING FENCE
- o—o—o FINAL FENCE (WHERE DIFFERENT FROM EXISTING FENCE)
- — — — — PROPERTY LINE
- DISCHARGING WELLS
- — — — — STREAMS AND MAJOR SURFACE DRAINAGE CHANNELS
- — — — — MAJOR DRAINAGE DIVIDE
- — — — — SUBWATERSHED DIVIDES
- SEDIMENT BASINS
- LOADING/UNLOADING AREAS
- FIRE HYDRANT



Trench 24 no longer proposed.

MATCH SHEET 4

**NOTES:**

1. BASEMAP PROVIDED BY CHEMICAL WASTE MANAGEMENT, INC. DATE OF AERIAL PHOTOGRAPHY, DECEMBER 13, 1982 AND 1993.
2. FLOOD PLAIN INFORMATION FROM SUMTER COUNTY FLOOD HAZARD BOUNDARY MAP - COMMUNITY - PANEL NO. 010194-0002A (1978).
3. THE CURRENT 100-YEAR FLOOD PLAIN IS SHOWN ON ATTACHMENTS A-1-3 AND A-1-4.
4. THE PROPERTY BOUNDARY AS SHOWN IN THIS DRAWING IS NO LONGER CURRENT. THE CURRENT FACILITY PROPERTY BOUNDARY IS SHOWN IN DRAWING 00-110-000.



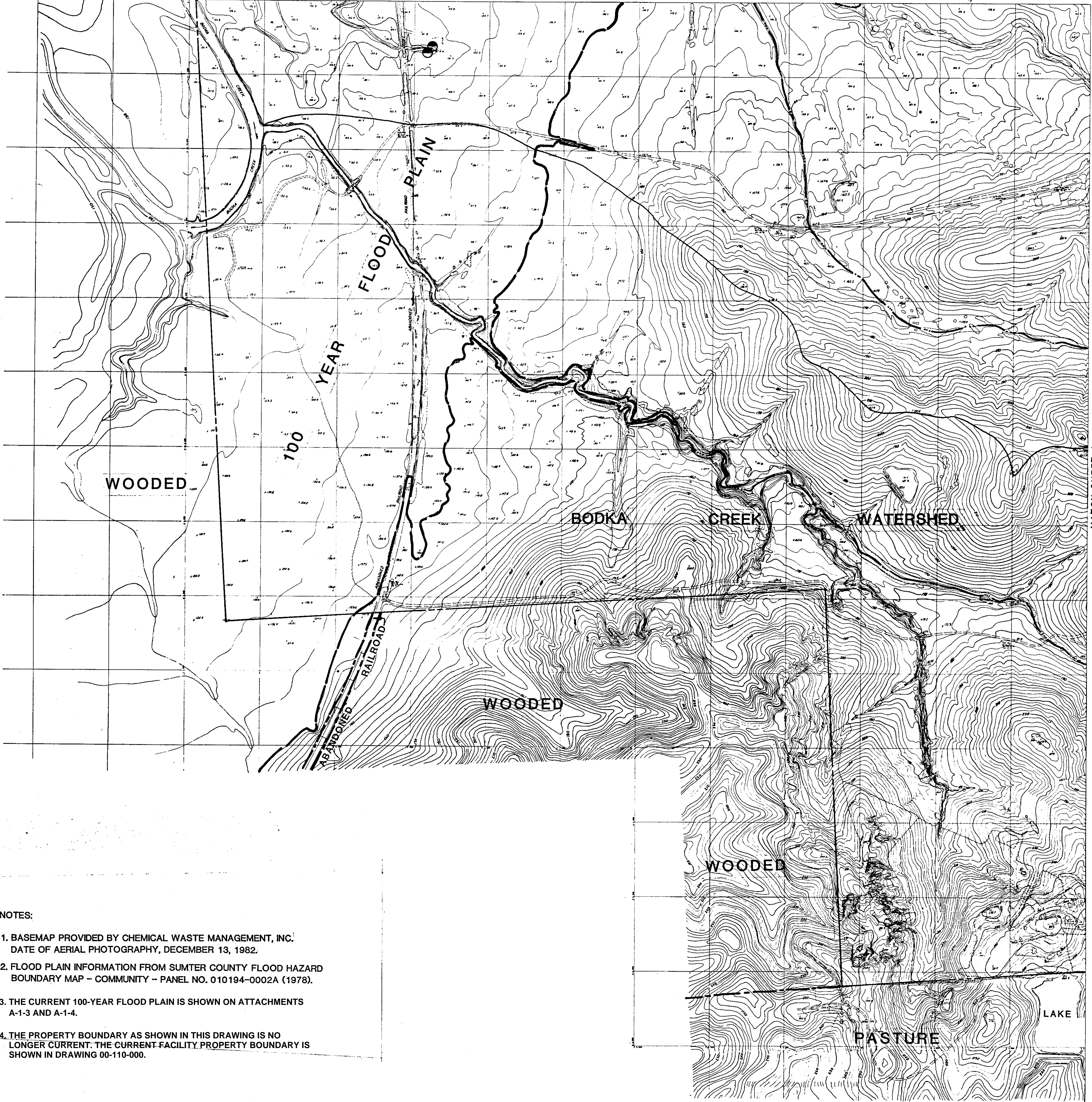
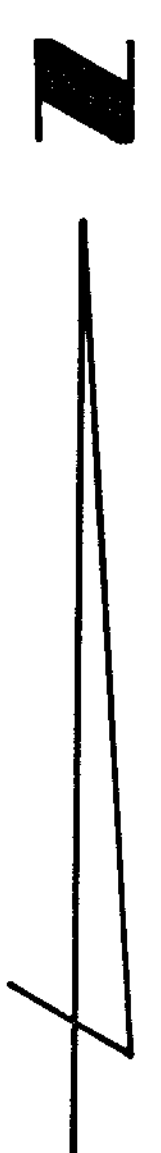
REV.	DATE	DESCRIPTION	DR BY	APP BY
5	10/27/93	ADDED 1993 TOPOGRAPHY	RJS	JEF
4	7/28/90	REVISED TRENCH LOCATIONS, WATERSHED, ETC.	JLW	YWF
3	8/3/88	REVISED LANDFILLS AND FENCES	TER	JEB
2	5/18/84	REVISED FENCE AND BOUNDARY LINES	SKB	JEB
1	3/17/84	FACILITIES ADDED	CAB	JEB

SCALE: AS SHOWN	PROJECT NO.:
FILE NO. B24-1308	PROJECT: EMELLE FACILITY
DES BY: JEB 7/7/83	SHEET TITLE: TOPOGRAPHIC MAP
DR BY: SKB 7/20/83	
CHK BY: JEB 3/8/84	
APP BY: JEB 3/8/84	

Chemical Waste Management, Inc. Oak Brook, Illinois 60521	SHEET 2 OF 4
DRAWING NO. 00-110-002	



MATCH SHEET 4

NOTES:

- 1. BASEMAP PROVIDED BY CHEMICAL WASTE MANAGEMENT, INC. DATE OF AERIAL PHOTOGRAPHY, DECEMBER 13, 1982.
- 2. FLOOD PLAIN INFORMATION FROM SUMTER COUNTY FLOOD HAZARD BOUNDARY MAP - COMMUNITY - PANEL NO. 010194-0002A (1978).
- 3. THE CURRENT 100-YEAR FLOOD PLAIN IS SHOWN ON ATTACHMENTS A-1-3 AND A-1-4.
- 4. THE PROPERTY BOUNDARY AS SHOWN IN THIS DRAWING IS NO LONGER CURRENT. THE CURRENT FACILITY PROPERTY BOUNDARY IS SHOWN IN DRAWING 00-110-000.

LEGEND

- PROPERTY LINE
- DISCHARGING WELLS
- STREAMS AND MAJOR SURFACE DRAINAGE CHANNELS
- SUBWATERSHED DIVIDES



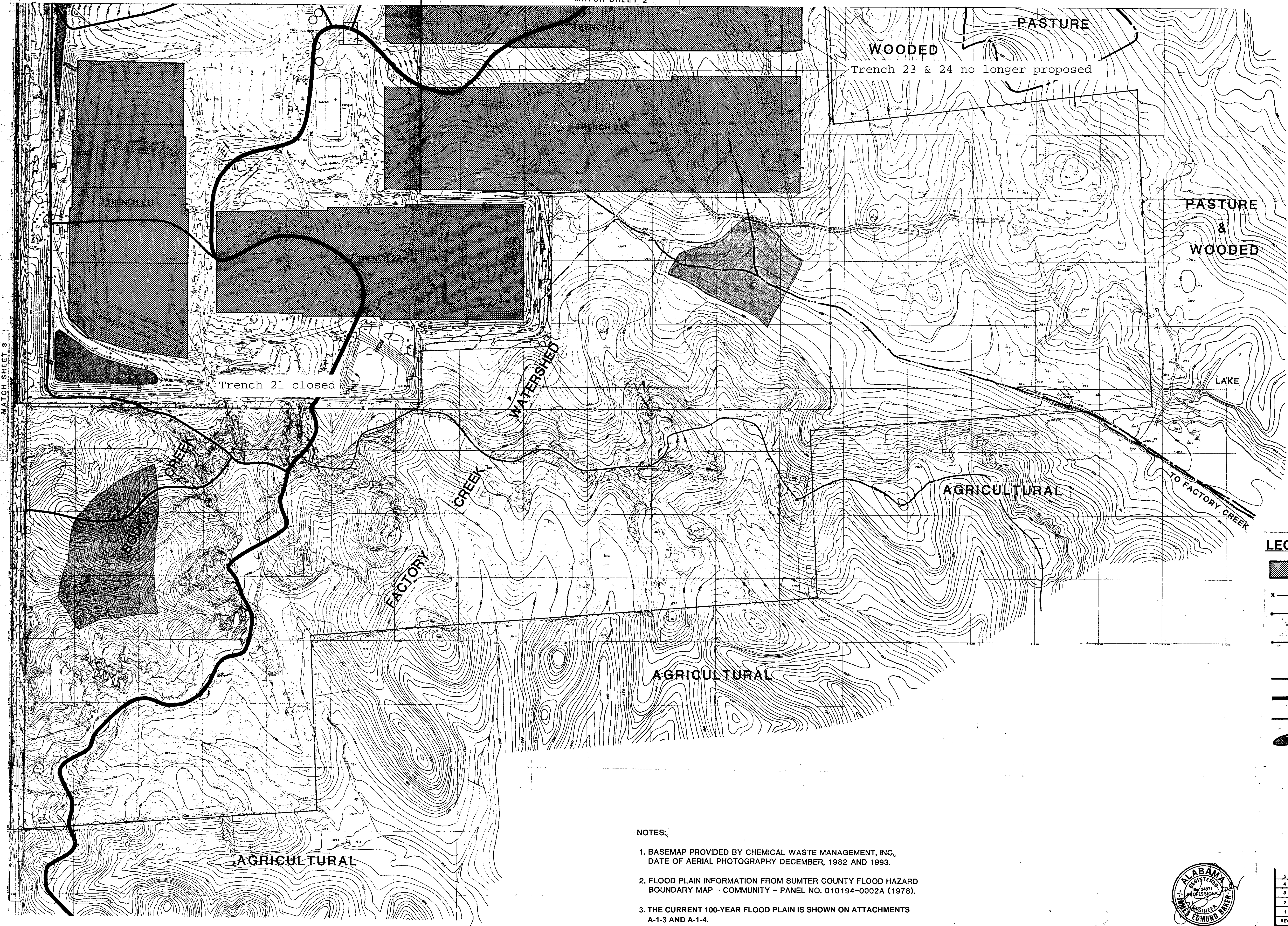
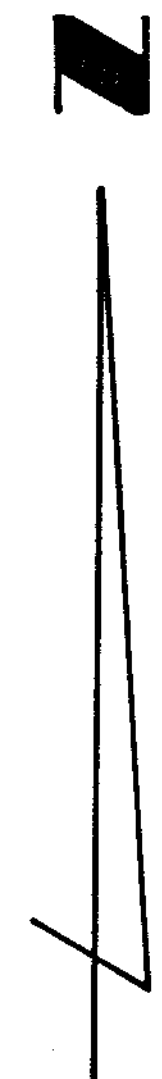
Permit Drawing Rev. 5.0

3	8/8/90	REMOVED BUILDING OUTLINES	CFC	MTF
2	7/26/90	REMOVED MONITORING WELL	JLW	MTF
1	3-17-84	FACILITIES ADDED	CAB	JEB
REV.	DATE	DESCRIPTION	DR BY	APP BY

SCALE: AS SHOWN		PROJECT NO.
FILE NO. 824-1308		PROJECT: EMELLE FACILITY
DES BY	JEB 7-7-83	SHEET TITLE: TOPOGRAPHIC MAP
DR BY	SKB 7-20-83	
CHK BY	JEB 3-8-84	
APP BY	JEB 3-8-84	



Chemical Waste Management, Inc.  
Oak Brook, Illinois 60521



WOODED  
Trench 23 & 24 no longer proposed

Trench 21 closed

PASTURE & WOODED

LAKE

AGRICULTURAL

AGRICULTURAL

AGRICULTURAL

LEGEND

- ACTIVE AND PROPOSED LANDFILL TRENCHES
- EXISTING FENCE
- FINAL FENCE (WHERE DIFFERENT FROM EXISTING FENCE)
- PROPERTY LINE
- STREAMS AND MAJOR SURFACE DRAINAGE CHANNELS
- MAJOR DRAINAGE DIVIDE
- SUBWATERSHED DIVIDES
- SEDIMENT BASINS
- LOADING/UNLOADING AREAS

NOTES:

1. BASEMAP PROVIDED BY CHEMICAL WASTE MANAGEMENT, INC., DATE OF AERIAL PHOTOGRAPHY DECEMBER, 1982 AND 1993.
2. FLOOD PLAIN INFORMATION FROM SUMTER COUNTY FLOOD HAZARD BOUNDARY MAP - COMMUNITY - PANEL NO. 010194-0002A (1978).
3. THE CURRENT 100-YEAR FLOOD PLAIN IS SHOWN ON ATTACHMENTS A-1-3 AND A-1-4.
4. THE PROPERTY BOUNDARY AS SHOWN IN THIS DRAWING IS NO LONGER CURRENT. THE CURRENT FACILITY PROPERTY BOUNDARY IS SHOWN IN DRAWING 00-110-000.



5	10/27/83	ADDED 1993 TOPOGRAPHY	RJS	JEB
4	7/26/80	ADDED LOADING/UNLOADING POINTS, SOME BUILDINGS, AND BASIN 13	JLW	JEB
3	8/3/83	REVISED LANDFILLS AND FENCES	TR	JEB
2	5/16/84	REVISED FENCE AND BOUNDARY LINES	SKB	JEB
1	3/17/84	FACILITIES ADDED	CAB	JEB
REV.	DATE	DESCRIPTION	DR BY	APP BY
SCALE: AS SHOWN		PROJECT NO.	PROJECT: EMELLE FACILITY	
FILE NO. 824-1308		SHEET TITLE: TOPOGRAPHIC MAP		
DES BY	JEB	7/7/83		
DR BY	SKB	7/20/83		
CHK BY	JEB	3/8/84		
APP BY	JEB	3/8/84		



Chemical Waste Management, Inc.  
Oak Brook, Illinois 60521

SHEET 4 OF 4  
DRAWING NO.  
00-110-004



J.F. PENDERGRASS  
99-210

TRACT THREE CHEMICAL  
WASTE MANAGEMENT  
FORMERLY C.E. BOYD 31-116  
AGRICULTURAL

TRACT ONE CHEMICAL  
WASTE MANAGEMENT  
121-627 123-959 123-966  
123-971 129-407

W.L. DIAL  
49-331  
AGRICULTURAL

ALABAMA POWER-  
EMELLE STATION

UNIT IDENTIFICATION LEGEND

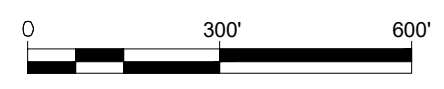
NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION
200	ADMINISTRATIVE OFFICE	*☆ 600	TANK MANAGEMENT UNIT	☆ 900	WHEEL WASH & TANK STORAGE UNIT	☆ 2000	CONTAINER MANAGEMENT UNIT
201	ADMINISTRATIVE OFFICE	*☆ 602	CONTAINER STORAGE UNIT	☆ 901	REFUELING STATION	☆ 2001	LEACHATE TREATMENT PLANT
207	GUARD HOUSE/SCALES	*☆ 603	CONTAINER STORAGE UNIT	☆ 908	TRANSPORTATION FUELING	*☆ 2200	CONTAINER STORAGE UNIT
224	FIRE SYSTEM PUMP HOUSE/TANK	*☆ 604	CONTAINER MANAGEMENT UNIT	☆ 909	HEAVY EQUIPMENT FUELING		
300	HEAVY EQUIPMENT MAINT.	*☆ 605	CENTRAL INVENTORY	☆ 1000	BULK SAMPLING STATION		
302	DOCUMENT STORAGE	☆ 606	FACILITY MAINTENANCE SHOP	☆ 1001	UNIT 1000 BREAKROOM/OFFICE/LAB		
401	PAINT & WASH BUILDING	☆ 608	C.I. FLAMMABLE STORAGE BUILDING	☆ 1002	UNIT 1000 SHED		
402	TRANSPORTATION SHOP	*☆ 700	CONTAINER MANAGEMENT UNIT	*☆ 1200A	CONTAINMENT BUILDING/ CONTAINER & TANK MANAGEMENT UNIT		
404	SHOWER, LOCKER FACILITY & CAFETERIA	*☆ 701	OPERATION OFFICE	☆ 1300	WHEEL WASH CLEAN WATER STORAGE	* TSCA REGULATED UNIT	
*☆ 406	CONTAINER STORAGE UNIT	*☆ 702	CONTAINER MANAGEMENT UNIT	☆ 1400	TANK MANAGEMENT UNIT	* TSCA REGULATED UNIT - LOADING STATION ONLY	
*☆ 520	CONTAINER AND TANK MANAGEMENT UNIT	*☆ 703	ORGANIC CONTAINER & TANK MANAGEMENT UNIT (INACTIVE)	☆ 1700	LEACHATE TANK STORAGE UNITS (MULTIPLE LOCATIONS - A, B & C)	☆ RCRA REGULATED UNIT	
		*☆ 703A	CONTAINER MANAGEMENT UNIT				
		☆ 704	AIR COMPRESSOR BUILDING				
		☆ 707	CONSOLIDATED TECH SERVICES BLDG.				
		☆ 708	LABORATORY & TANK STORAGE UNIT				

ACTIVE AND PLANNED  
LANDFILL TRENCHES



NOTES:

- TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES
- MAPING DATED 1/19/2020 AND 5/14/2020
- FEMA 100 YEAR FLOOD PLAIN FIRM #0119C0075D EFFECTIVE 4/3/2012.



REV	DATE	REVISION DESCRIPTION
5.0	08/22	RCRA PART B PERMIT RENEWAL

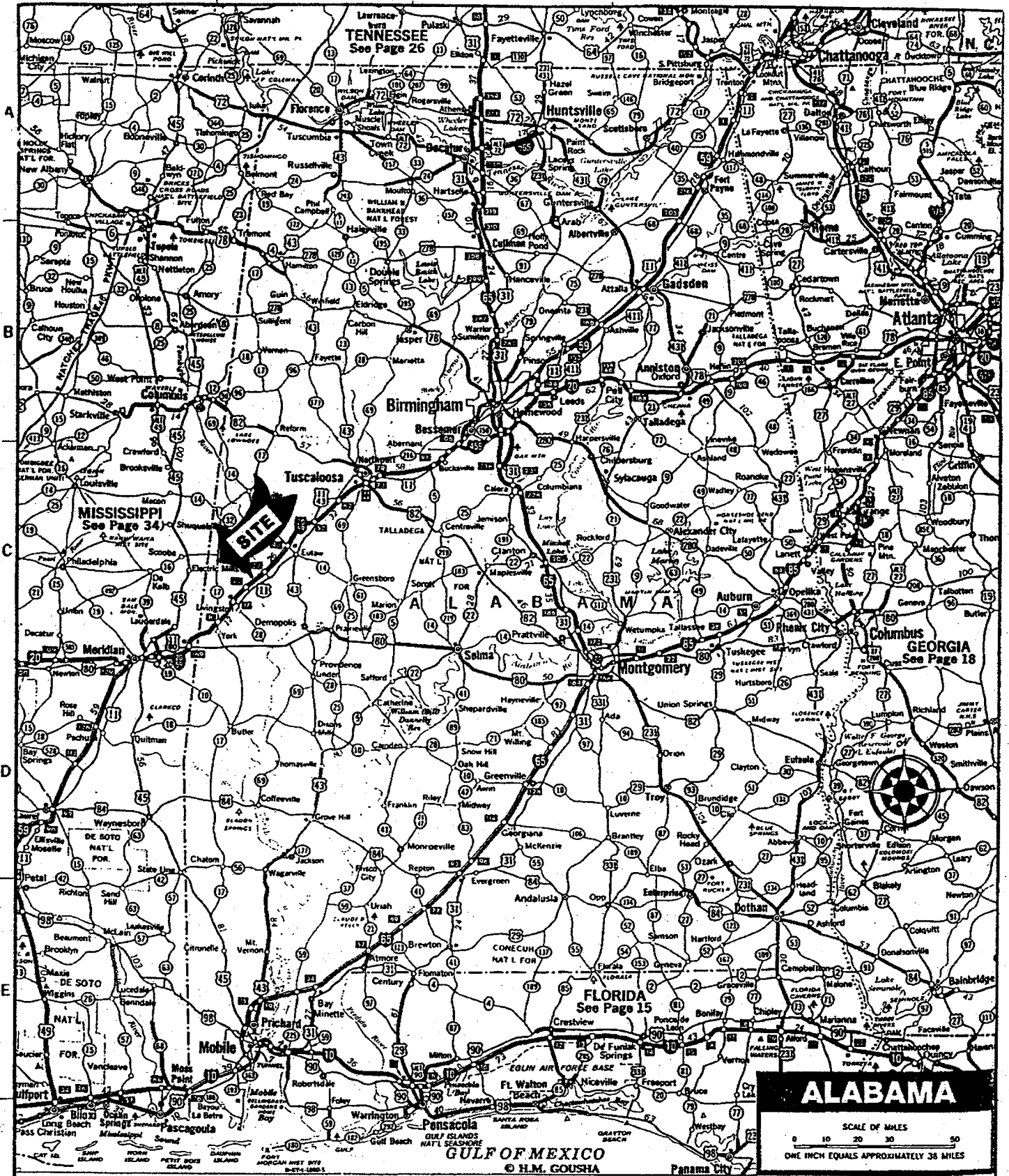
CREATED: 11/19/2020  
BY: KARIARA  
PLOT DATE: 7/12/2022  
LAST SAVED: 7/22/2022

**APPENDIX B-2**

**SECTION B**

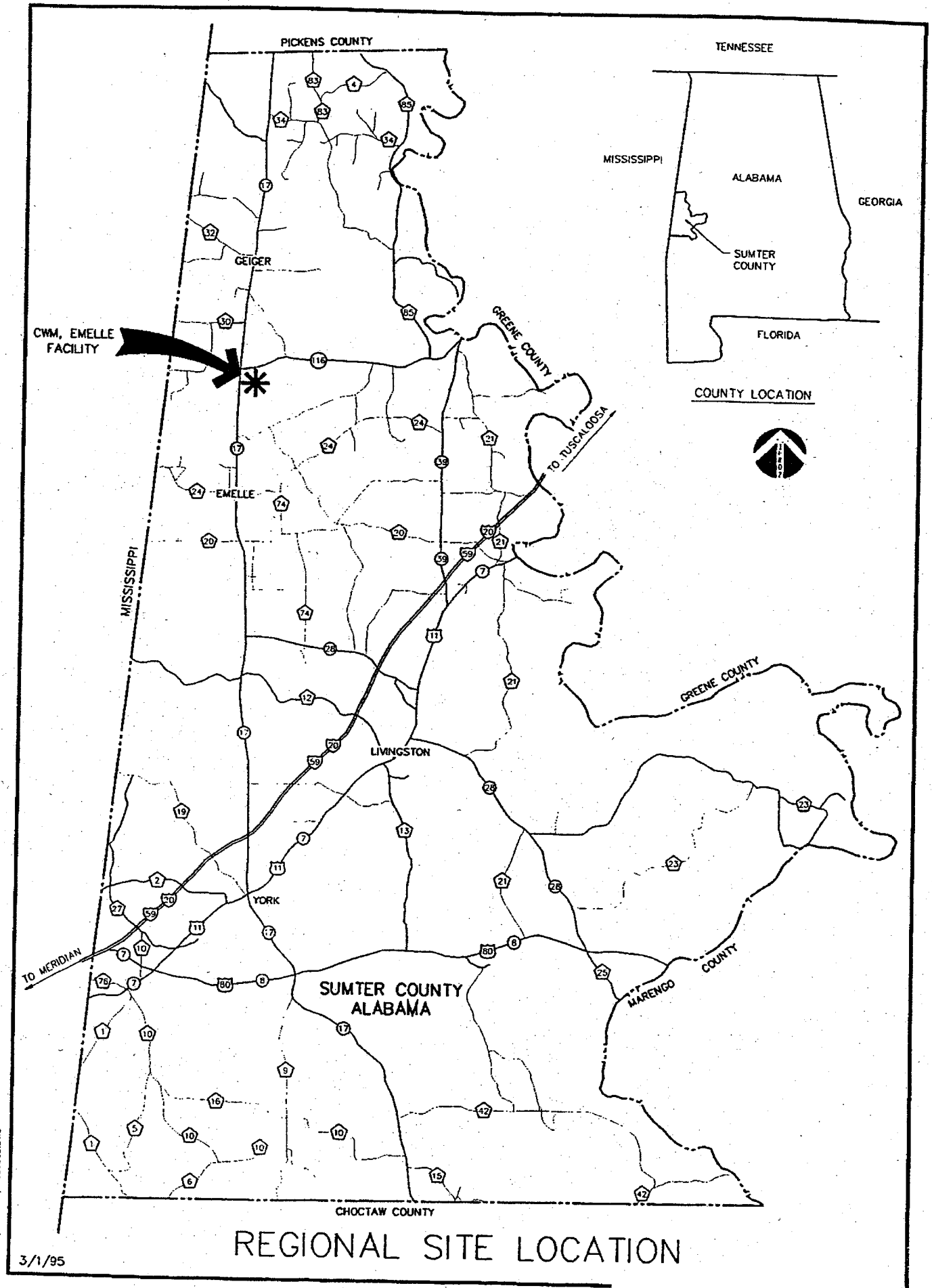
**FIGURES**

Figure B-1



**REGIONAL SITE LOCATION  
CHEMICAL WASTE MANAGEMENT, INC.  
EMELLE FACILITY**

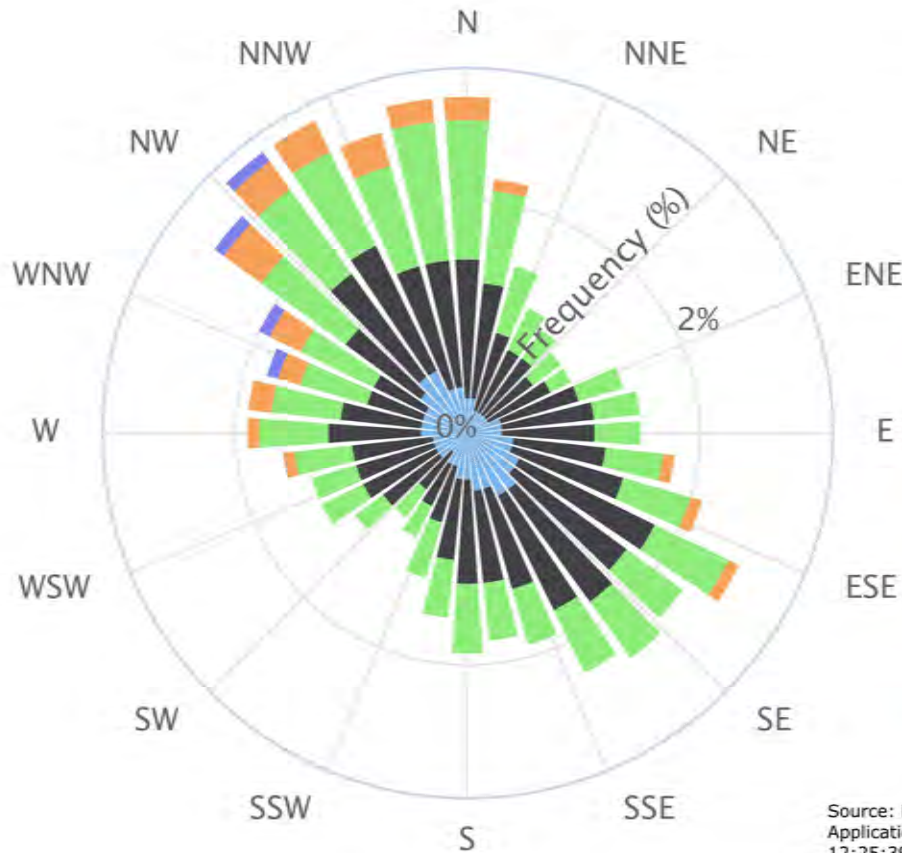
Figure B-1 (cont.)





# MERIDIAN NAAS (MS) Wind Rose

Nov. 1, 2002 – Nov. 11, 2022



**Wind Rose Information**  
 Location: Meridian, Mississippi  
 Latitude: 32.5500  
 Longitude: -88.5667  
 Elevation: 271 ft.  
 Element: Mean Wind Speed

### Wind Speed (mph)

- 1.3 - 4
- 4 - 8
- 8 - 13
- 13 - 19
- 19 - 25
- 25 - 32
- 32 - 39
- 39 - 47
- 47 -

Source: Midwestern Regional Climate Center cli-MATE: MRCC  
 Application Tools Environment Generated at: 11/11/2022  
 12:25:39 PM CST <https://mrcc.purdue.edu/>

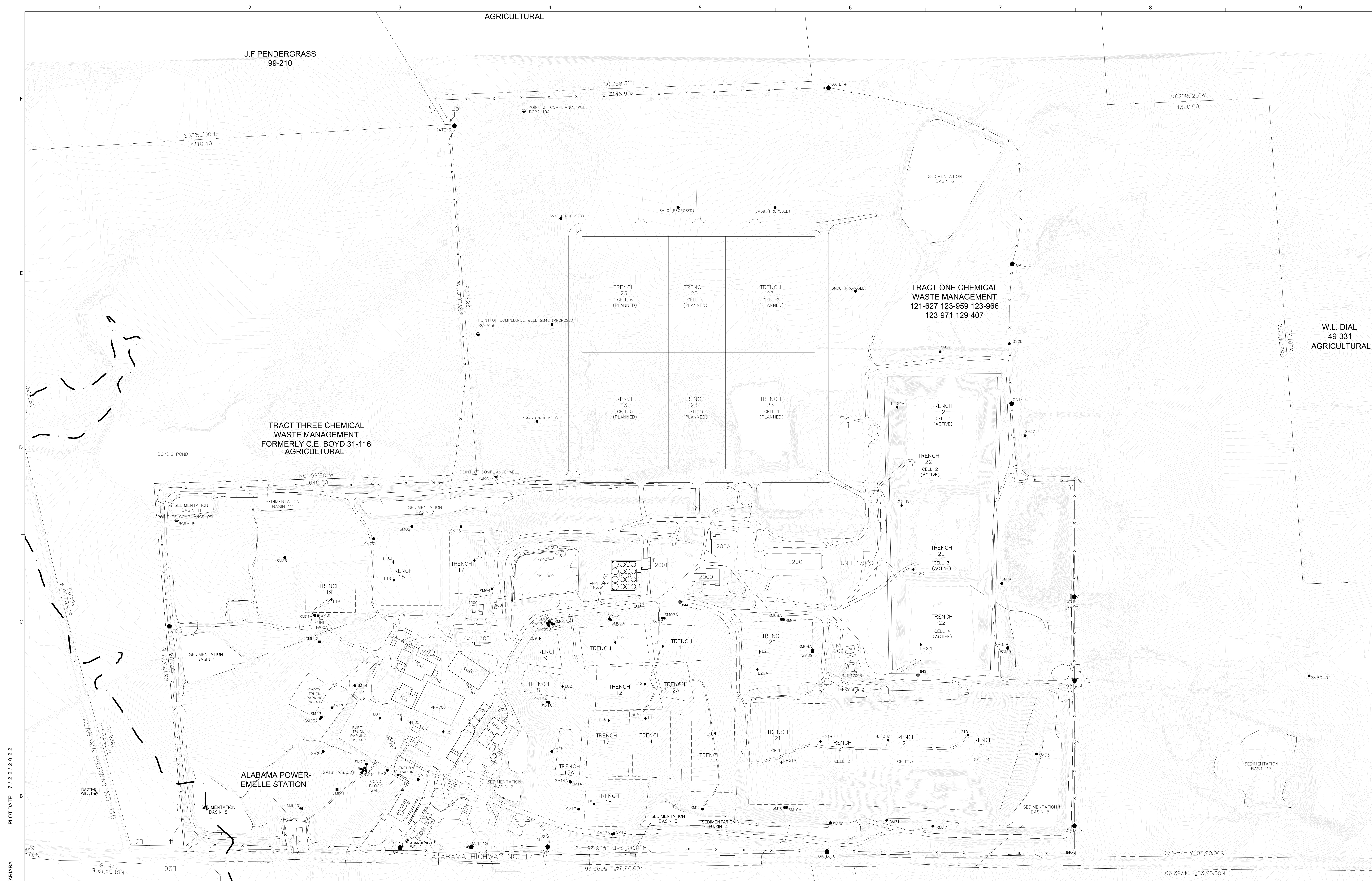
PROJECT NO.: D3279703  
 DATE: NOVEMBER 2022  
 SCALE: NA  
 SHEET NO.:

Figure B-2

RCRA PART B PERMIT APPLICATION  
 CHEMICAL WASTE MANAGEMENT INC.

WIND ROSE

Jacobs



J.F. PENDERGRASS  
99-210

TRACT THREE CHEMICAL  
WASTE MANAGEMENT  
FORMERLY C.E. BOYD 31-116  
AGRICULTURAL

TRACT ONE CHEMICAL  
WASTE MANAGEMENT  
121-627 123-959 123-966  
123-971 129-407

W.L. DIAL  
49-331  
AGRICULTURAL

ALABAMA POWER-  
EMELLE STATION

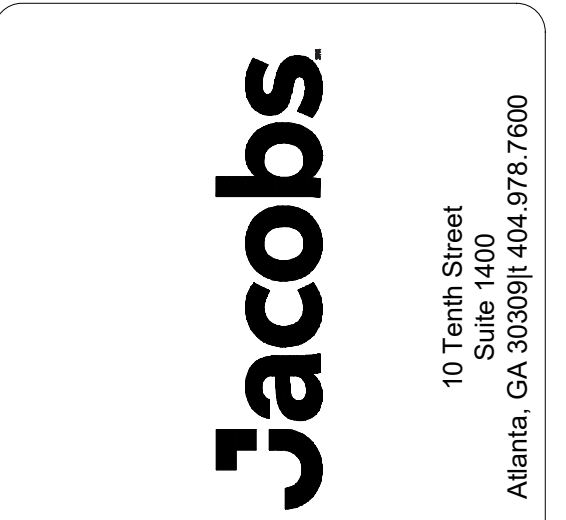
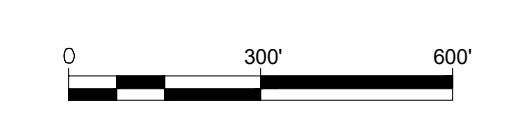
UNIT IDENTIFICATION LEGEND

NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION
200	ADMINISTRATIVE OFFICE	*☆ 600	TANK MANAGEMENT UNIT	☆ 900	WHEEL WASH & TANK STORAGE UNIT	☆ 2000	CONTAINER MANAGEMENT UNIT
201	ADMINISTRATIVE OFFICE	*☆ 602	CONTAINER STORAGE UNIT	901	REFUELING STATION	2001	LEACHATE TREATMENT PLANT
207	GUARD HOUSE/SCALES	*☆ 603	CONTAINER STORAGE UNIT	908	TRANSPORTATION FUELING	*☆ 2200	CONTAINER STORAGE UNIT
224	FIRE SYSTEM PUMP HOUSE/TANK	*☆ 604	CONTAINER MANAGEMENT UNIT	909	HEAVY EQUIPMENT FUELING		
300	HEAVY EQUIPMENT MAINT.	605	CENTRAL INVENTORY	1000	BULK SAMPLING STATION		
302	DOCUMENT STORAGE	606	FACILITY MAINTENANCE SHOP	1001	UNIT 1000 BREAKROOM/OFFICE/LAB		
401	PAINT & WASH BUILDING	608	CL FLAMMABLE STORAGE BUILDING	1002	UNIT 1000 SHED		
402	TRANSPORTATION SHOP	*☆ 700	CONTAINER MANAGEMENT UNIT	*☆ 1200A	CONTAINMENT BUILDING/ CONTAINER		
404	SHOWER, LOCKER FACILITY	701	OPERATION OFFICE		& TANK MANAGEMENT UNIT		
*☆ 406	CONTAINER STORAGE UNIT	*☆ 702	CONTAINER MANAGEMENT UNIT (INACTIVE)	1300	WHEEL WASH CLEAN WATER STORAGE	* TSCA REGULATED UNIT	
*☆ 520	CONTAINER AND TANK MANAGEMENT UNIT	*☆ 703	TANK MANAGEMENT UNIT (INACTIVE)	☆ 1400	TANK MANAGEMENT UNIT	* TSCA REGULATED UNIT - LOADING STATION ONLY	
		*☆ 703A	CONTAINER MANAGEMENT UNIT (INACTIVE)	☆ 1700	LEACHATE TANK STORAGE UNITS (MULTIPLE LOCATIONS - A, B & C)	* RCRA REGULATED UNIT	
		704	MANAGEMENT UNIT				
		707	AIR COMPRESSOR BUILDING				
		☆ 708	CONSOLIDATED TECH SERVICES BLDG. LABORATORY & TANK STORAGE UNIT				

LEGEND

- 100YR FLOOD PLAIN
- BUILDING/SOLID WASTE MANAGEMENT UNIT
- CLOSED LANDFILL/LAGOON
- ACTIVE LANDFILL
- SITE BENCHMARK
- SEDIMENTATION BASIN/DRAINAGE DITCH
- PROPERTY LINE
- FENCE
- SM23 SHALLOW MONITORING WELL LOCATION
- RCRA BR RCRA MONITORING WELL LOCATION (EUTAW AQUIFER)
- L-21B LEACHATE RISER WELL LOCATION
- CMI-1 CMI PLAN SENTRY WELL LOCATION

NOTES:  
1. TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES  
MAPPING DATED 1/19/2020 AND 5/14/2020.  
2. FEMA 100 YEAR FLOOD PLAIN FIRM #01119C00750 EFFECTIVE 4/3/2012.



RCRA PART B PERMIT APPLICATION  
CHEMICAL WASTE MANAGEMENT INC.  
EMELLE, ALABAMA TREATMENT FACILITY  
SULLY COUNTY, AL

REV	DATE	REVISION DESCRIPTION
5.0	08/22	RCRA PART B PERMIT RENEWAL

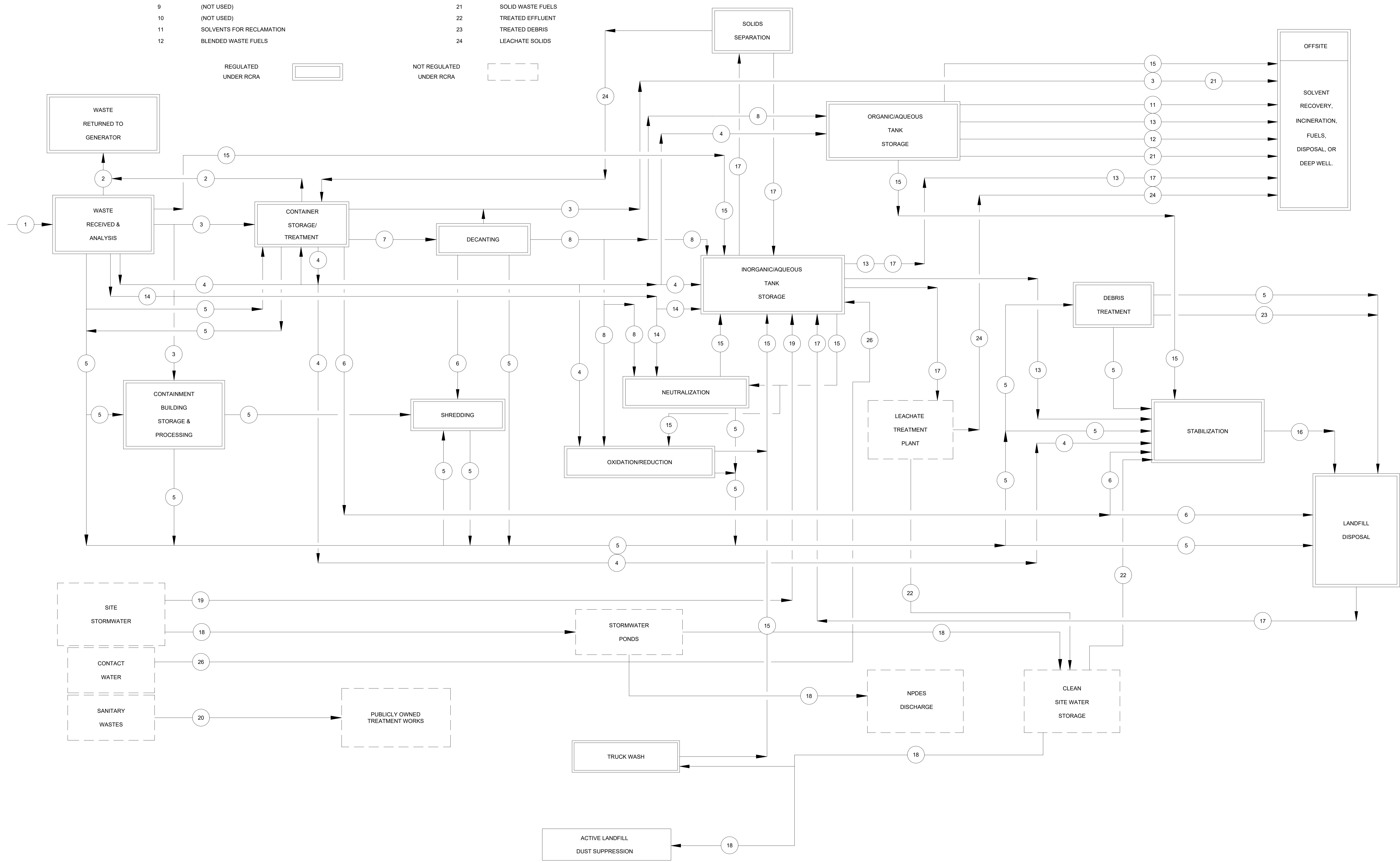
THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE  
THIS DRAWING MUST BE USED IN CONJUNCTION WITH THE APPLICABLE OR GOVERNING TECHNICAL SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.  
PROJECT NO: D3279702  
DATE: AUGUST 2022  
DISC. LEAD: MRC DESIGNER: MRC CHECKER: SBT  
SHEET TITLE  
FACILITY LAYOUT  
SHEET FIGURE B-3

BY: KARIARA  
PLOT DATE: 7/12/2022  
LAST SAVED: 3/20/2021  
CREATED: 10/12/2020

FLOW PATH IDENTIFICATION

FLOW PATH	MATERIAL	FLOW PATH	MATERIAL
1	ALL WASTES	13	LIQUID WASTES
2	LOADS OF REJECTED WASTES	14	CORROSIVE LIQUID WASTES
3	CONTAINERIZED WASTES	15	AQUEOUS WASTES
4	BULK LIQUIDS & SLUDGES	16	STABILIZED WASTES
5	BULK SOLID WASTES	17	LEACHATE LIQUIDS
6	CONTAINERIZED SOLID WASTES	18	NON-CONTAMINATED STORMWATER
7	CONTAINERIZED LIQUID WASTES & SLUDGES	19	CONTAMINATED STORMWATER
8	DECANTED WASTES	20	SANITARY WASTES
9	(NOT USED)	21	SOLID WASTE FUELS
10	(NOT USED)	22	TREATED EFFLUENT
11	SOLVENTS FOR RECLAMATION	23	TREATED DEBRIS
12	BLENDED WASTE FUELS	24	LEACHATE SOLIDS
		25	(NOT USED)
		26	CONTAMINATED CONTACT WATER

REGULATED UNDER RCRA   NOT REGULATED UNDER RCRA  



REV	DATE	DESCRIPTION
5.0	08/22	RCRA PART B PERMIT RENEWAL

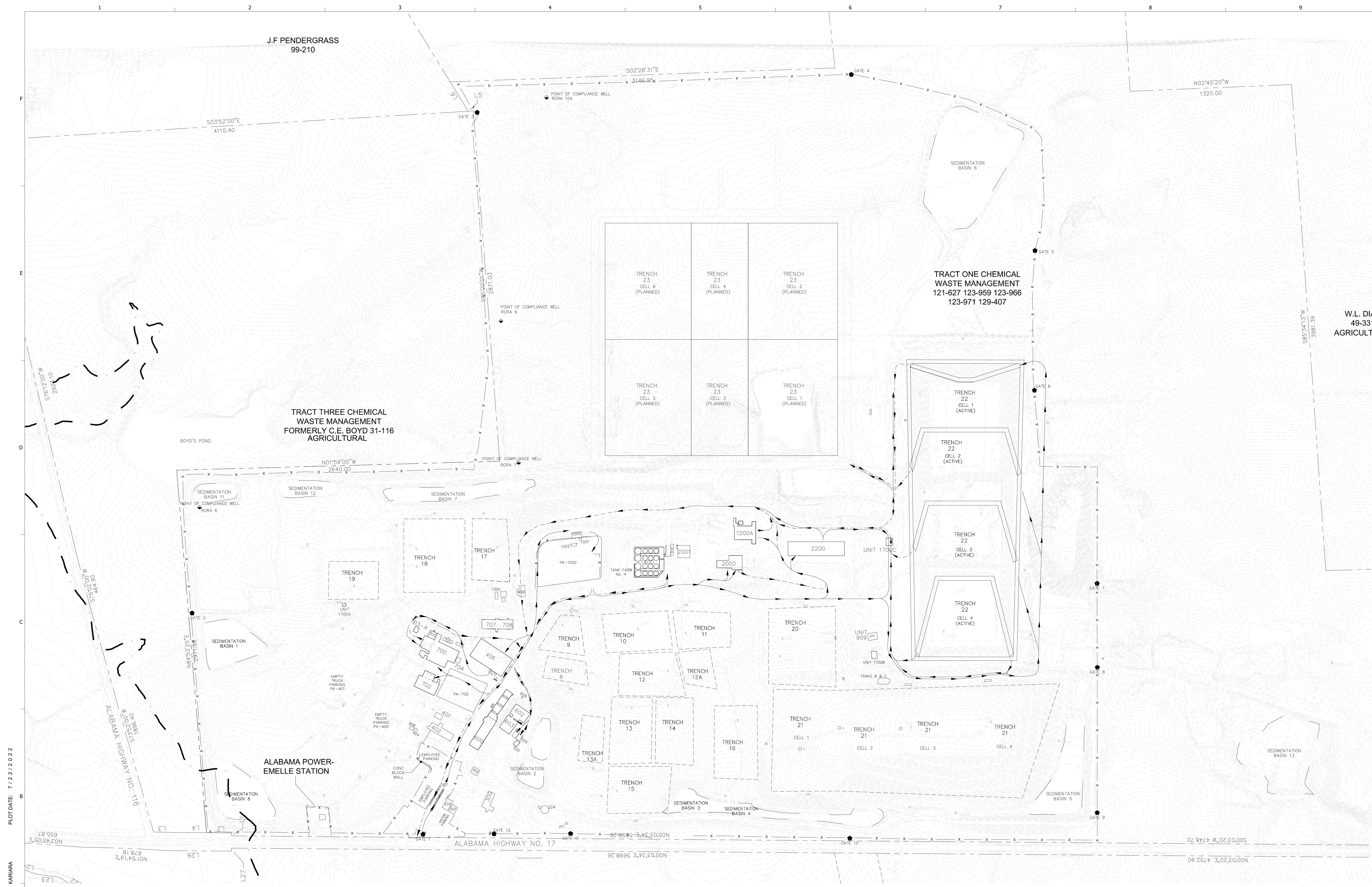
THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE  
THIS DRAWING MUST BE USED IN CONJUNCTION WITH THE APPLICABLE OR GOVERNING TECHNICAL SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.

DATE: AUGUST 2022  
PROJECT NO: D3279702  
DISC. LEAD: MTF DESIGNER: MRC CHECKER: SBT

SHEET TITLE

OPERATIONS FLOW SHEET

SHEET FIGURE B-4



J.F. PENDERGRASS  
99-210

TRACT ONE CHEMICAL  
WASTE MANAGEMENT  
121-627 123-959 123-966  
123-971 129-407

TRACT THREE CHEMICAL  
WASTE MANAGEMENT  
FORMERLY C.E. BOYD 31-116  
AGRICULTURAL

ALABAMA POWER-  
EMELLE STATION

W.L. DIA  
49-331  
AGRICULTURE

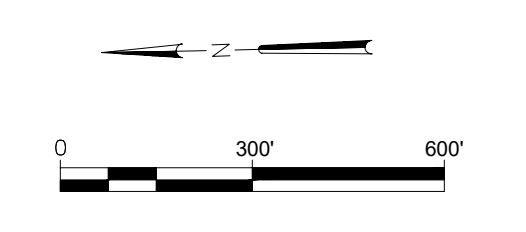
BY: KARIARA  
PLOT DATE: 7/12/2022  
LAST SAVED: 7/19/2021  
CREATED: 10/12/2020

UNIT IDENTIFICATION LEGEND

NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION
200	ADMINISTRATIVE OFFICE	★ 600	TANK MANAGEMENT UNIT	★ 900	WHEEL WASH & TANK STORAGE UNIT	★ 2000	CONTAINER MANAGEMENT UNIT
201	ADMINISTRATIVE OFFICE	★ 602	CONTAINER STORAGE UNIT	901	REFUELING STATION	2001	LEACHATE TREATMENT PLANT
207	GUARD HOUSE/SCALES	★ 603	CONTAINER STORAGE UNIT	908	TRANSPORTATION FUELING	★ 2200	CONTAINER STORAGE UNIT
224	FIRE SYSTEM PUMP HOUSE/TANK	★ 604	CONTAINER MANAGEMENT UNIT	909	HEAVY EQUIPMENT FUELING		
300	HEAVY EQUIPMENT MAINT.	★ 605	CENTRAL INVENTORY	1000	BULK SAMPLING STATION		
302	DOCUMENT STORAGE	606	FACILITY MAINTENANCE SHOP	1001	UNIT 1000 BREAKROOM/OFFICE/LAB		
401	PAINT & WASH BUILDING	★ 608	C.I. FLAMMABLE STORAGE BUILDING	1002	UNIT 1000 SHED		
402	TRANSPORTATION SHOP	★ 700	CONTAINER MANAGEMENT UNIT	★ 1200A	CONTAINMENT BUILDING/CONTAINER		
404	SHOWER, LOCKER FACILITY & CAFETERIA	★ 701	OPERATION OFFICE		& TANK MANAGEMENT UNIT		
★ 406	CONTAINER STORAGE UNIT	★ 702	CONTAINER MANAGEMENT UNIT	1300	WHEEL WASH CLEAN WATER STORAGE		
★ 520	CONTAINER AND TANK MANAGEMENT UNIT	★ 703	ORGANIC CONTAINER & TANK MANAGEMENT UNIT (INACTIVE)	★ 1400	TANK MANAGEMENT UNIT		
		★ 703A	CONTAINER MANAGEMENT UNIT	★ 1700	LEACHATE TANK STORAGE UNITS (MULTIPLE LOCATIONS - A, B & C)		
		704	AIR COMPRESSOR BUILDING				
		707	CONSOLIDATED TECH SERVICES BLDG.				
		★ 708	LABORATORY & TANK STORAGE UNIT				



- NOTES:
- TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES
  - MAPPING DATED 1/19/2020 AND 5/14/2020.
  - FEMA 100 YEAR FLOOD PLAIN FIRM #01119C0075D EFFECTIVE 4/3/2012.



REV	DATE	REVISION DESCRIPTION
5.0	08/22	RCRA PART B PERMIT RENEWAL

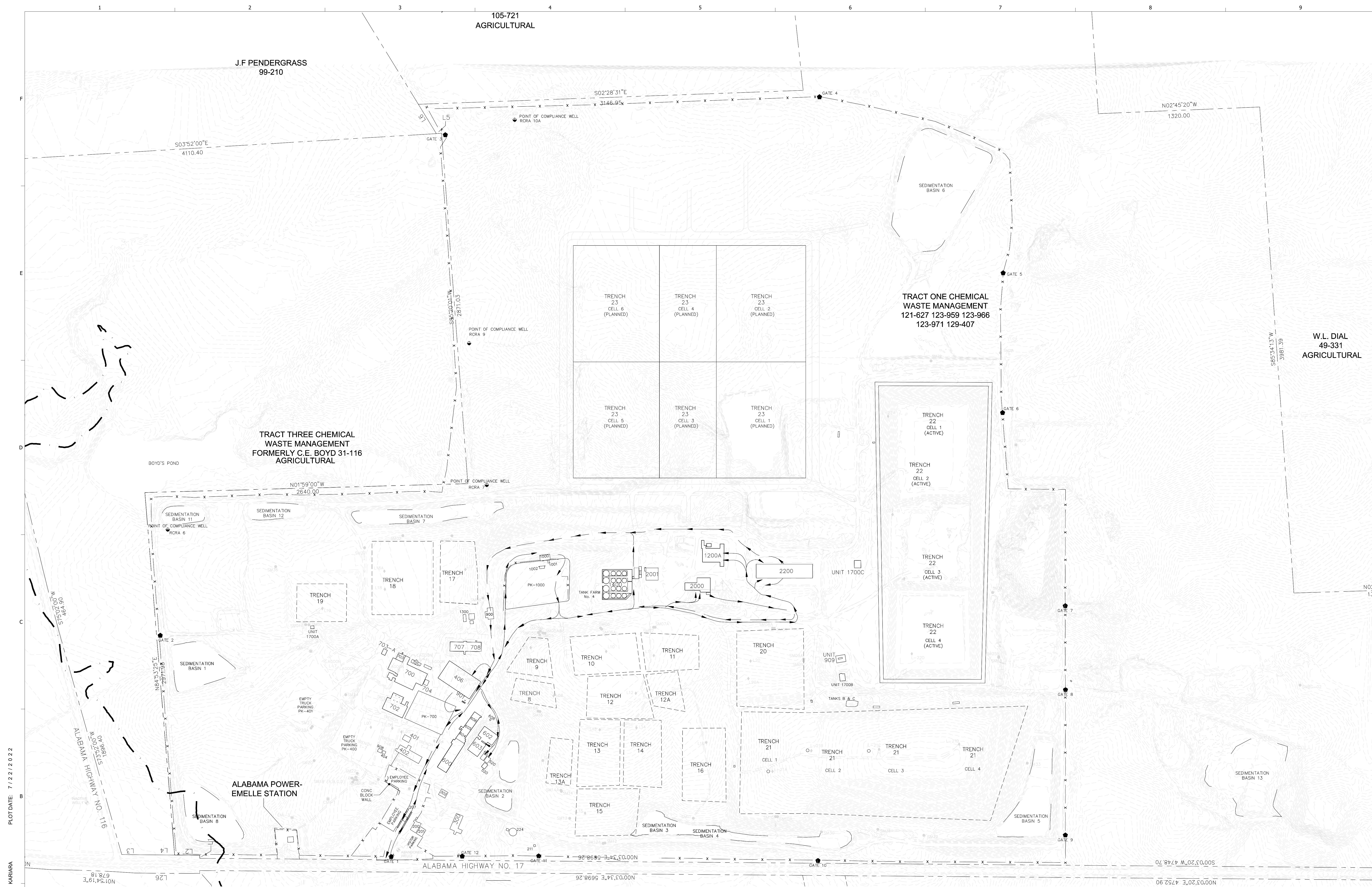
THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

THIS DRAWING MUST BE USED IN CONJUNCTION WITH THE APPLICABLE OR GOVERNING TECHNICAL SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.

PROJECT NO: D3279702  
DATE: AUGUST 2022  
DISC. LEAD: MTF    DESIGNER: MRC    CHECKER: SBT

SHEET TITLE  
**CONTAINERIZED WASTE RECEIVING**

SHEET FIGURE B-5



CREATED: 10/12/2020  
 BY: KARIARA  
 LAST SAVED: 3/9/2021  
 PLOT DATE: 7/12/2022

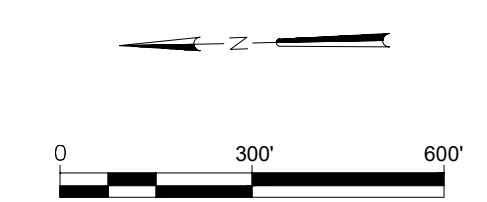
**UNIT IDENTIFICATION LEGEND**

NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION
200	ADMINISTRATIVE OFFICE	*☆ 600	TANK MANAGEMENT UNIT	☆ 900	WHEEL WASH & TANK STORAGE UNIT	☆ 2000	CONTAINER MANAGEMENT UNIT
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207	GUARD HOUSE/SCALES	*☆ 603	CONTAINER STORAGE UNIT	☆ 908	TRANSPORTATION FUELING	*☆ 2200	CONTAINER STORAGE UNIT
224	FIRE SYSTEM PUMP HOUSE/TANK	*☆ 604	CONTAINER MANAGEMENT UNIT	☆ 909	HEAVY EQUIPMENT FUELING		
300	HEAVY EQUIPMENT MAINT.	☆ 605	CENTRAL INVENTORY	☆ 1000	BULK SAMPLING STATION		
302	DOCUMENT STORAGE	☆ 606	FACILITY MAINTENANCE SHOP	☆ 1001	UNIT 1000 BREAKROOM/OFFICE/LAB		
401	PAINT & WASH BUILDING	☆ 608	C.I. FLAMMABLE STORAGE BUILDING	☆ 1002	UNIT 1000 SHED		
402	TRANSPORTATION SHOP	*☆ 700	CONTAINER MANAGEMENT UNIT	*☆ 1200A	CONTAINMENT BUILDING/ CONTAINER & TANK MANAGEMENT UNIT	* TSCA REGULATED UNIT	
404	SHOWER, LOCKER FACILITY & CAFETERIA	☆ 701	OPERATION OFFICE	☆ 1300	WHEEL WASH CLEAN WATER STORAGE	* TSCA REGULATED UNIT - LOADING STATION ONLY	
*☆ 406	ORGANIC CONTAINER UNIT	*☆ 702	CONTAINER MANAGEMENT UNIT	☆ 1400	TANK MANAGEMENT UNIT	☆ RCRA REGULATED UNIT	
*☆ 520	CONTAINER AND TANK MANAGEMENT UNIT	*☆ 703	TANK MANAGEMENT UNIT (INACTIVE)	☆ 1700	LEACHATE TANK STORAGE UNITS (MULTIPLE LOCATIONS - A, B & C)		
		*☆ 703A	CONTAINER MANAGEMENT UNIT				
		☆ 704	AIR COMPRESSOR BUILDING				
		☆ 707	CONSOLIDATED TECH SERVICES BLDG.				
		☆ 708	LABORATORY & TANK STORAGE UNIT				

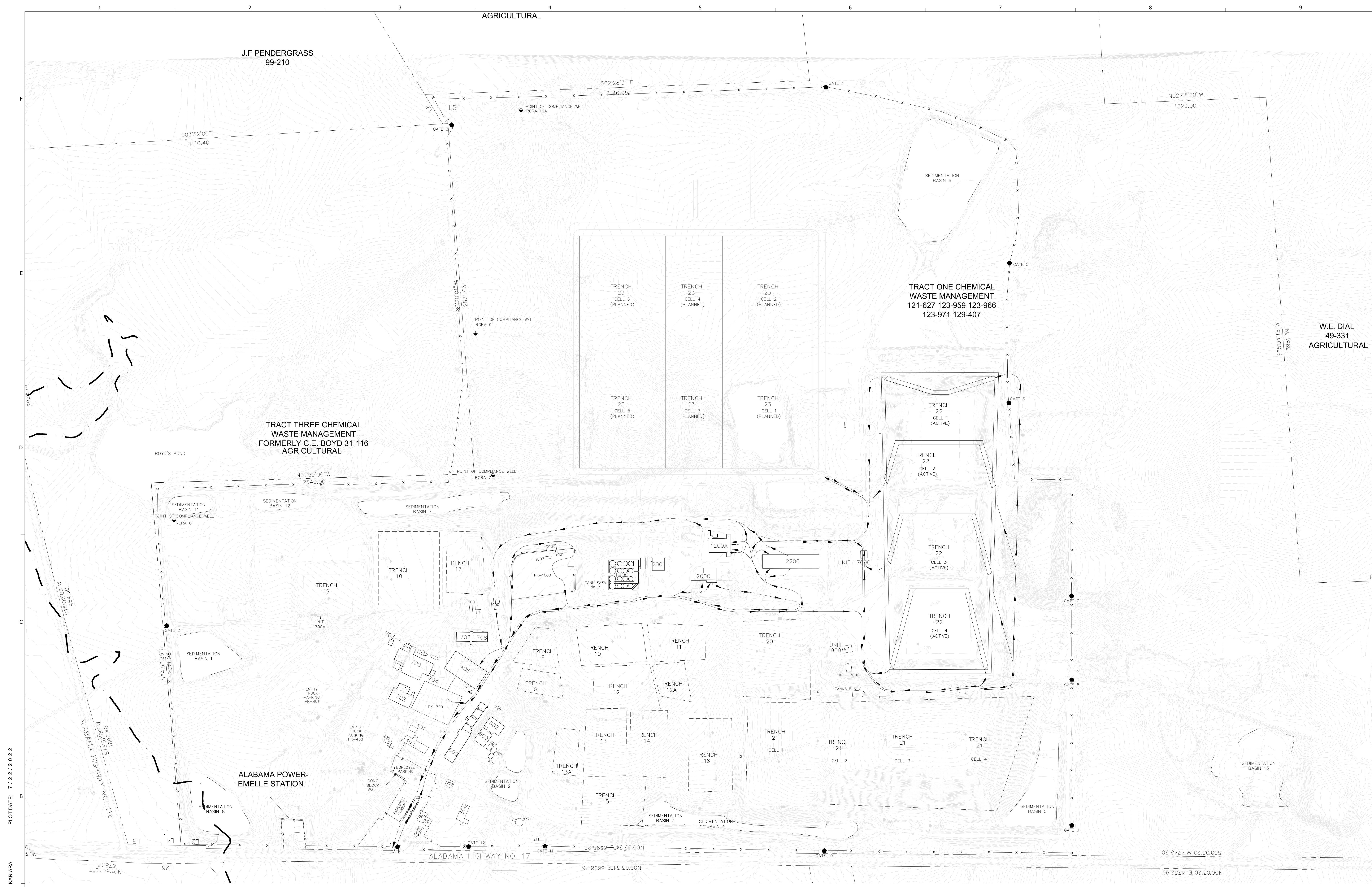


**NOTES:**

- TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES MAPPING DATED 1/19/2020 AND 5/14/2020.
- FEMA 100 YEAR FLOOD PLAIN FIRM #01119C0075D EFFECTIVE 4/3/2012.



REV	DATE	REVISION DESCRIPTION
5.0	08/22	RCRA PART B PERMIT RENEWAL



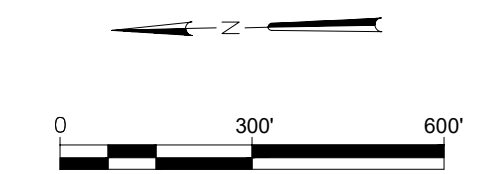
BY: KARIARA  
 LAST SAVED: 3/20/2021  
 PLOT DATE: 7/12/2022  
 CREATED: 10/12/2020

**UNIT IDENTIFICATION LEGEND**

NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION
200	ADMINISTRATIVE OFFICE	*☆ 600	TANK MANAGEMENT UNIT	*☆ 900	WHEEL WASH & TANK STORAGE UNIT	*☆ 2000	CONTAINER MANAGEMENT UNIT
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402	TRANSPORTATION SHOP	*☆ 700	CONTAINER MANAGEMENT UNIT	*☆ 1200A	CONTAINMENT BUILDING/CONTAINER & TANK MANAGEMENT UNIT		
404	SHOWER, LOCKER FACILITY & CAFETERIA	*☆ 701	CONTAINER MANAGEMENT UNIT	1300	WHEEL WASH CLEAN WATER STORAGE	*☆ TSCA REGULATED UNIT	
*☆ 406	CONTAINER STORAGE UNIT	*☆ 702	CONTAINER MANAGEMENT UNIT	*☆ 1400	TANK MANAGEMENT UNIT	*☆ TSCA REGULATED UNIT - LOADING STATION ONLY	
*☆ 520	CONTAINER AND TANK MANAGEMENT UNIT	*☆ 703	ORGANIC CONTAINER & TANK MANAGEMENT UNIT (INACTIVE)	*☆ 1700	LEACHATE TANK STORAGE UNITS (MULTIPLE LOCATIONS - A, B & C)	*☆ RCRA REGULATED UNIT	
		*☆ 703A	CONTAINER MANAGEMENT UNIT				
		704	AIR COMPRESSOR BUILDING				
		707	CONSOLIDATED TECH SERVICES BLDG.				
		*☆ 708	LABORATORY & TANK STORAGE UNIT				



**NOTES:**  
 1. TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES MAPPING DATED 1/19/2020 AND 5/14/2020.  
 2. FEMA 100 YEAR FLOOD PLAIN FIRM #01119C00750 EFFECTIVE 4/3/2012.



REV	DATE	REVISION DESCRIPTION
5.0	08/22	RCRA PART B PERMIT RENEWAL



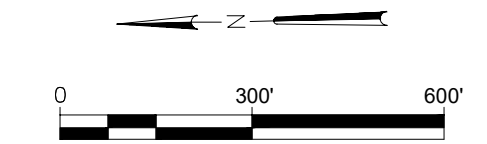
BY: KARIARA  
 PLOT DATE: 7/22/2022  
 LAST SAVED: 3/20/2021  
 CREATED: 10/12/2020

**UNIT IDENTIFICATION LEGEND**

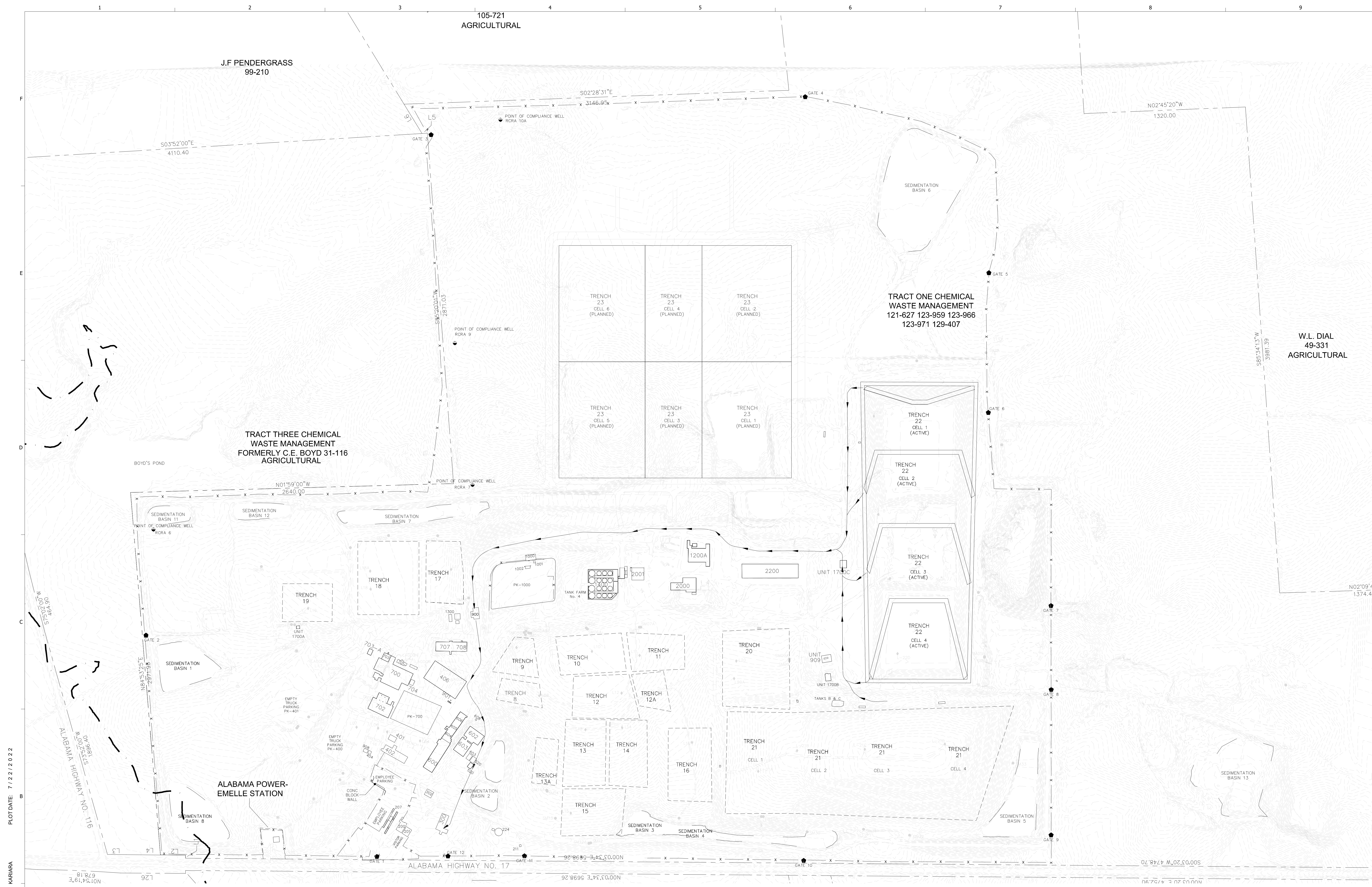
NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION
200	ADMINISTRATIVE OFFICE	*★ 600	TANK MANAGEMENT UNIT	900	WHEEL WASH & TANK STORAGE UNIT	*★ 2000	CONTAINER MANAGEMENT UNIT
201	ADMINISTRATIVE OFFICE	*★ 602	CONTAINER STORAGE UNIT	901	REFUELING STATION	2001	LEACHATE TREATMENT PLANT
207	GUARD HOUSE/SCALES	*★ 603	CONTAINER STORAGE UNIT	908	TRANSPORTATION FUELING	*★ 2200	CONTAINER STORAGE UNIT
224	FIRE SYSTEM PUMP HOUSE/TANK	*★ 604	CONTAINER MANAGEMENT UNIT	909	HEAVY EQUIPMENT FUELING		
300	HEAVY EQUIPMENT MAINT.	*★ 605	CENTRAL INVENTORY	1000	BULK SAMPLING STATION		
302	DOCUMENT STORAGE	606	FACILITY MAINTENANCE SHOP	1001	UNIT 1000 BREAKROOM/OFFICE/LAB		
401	PAINT & WASH BUILDING	608	C.I. FLAMMABLE STORAGE BUILDING	1002	UNIT 1000 SHED		
402	TRANSPORTATION SHOP	*★ 700	CONTAINER MANAGEMENT UNIT	*★ 1200A	CONTAINMENT BUILDING/ CONTAINER & TANK MANAGEMENT UNIT	* TSCA REGULATED UNIT	
404	SHOWER, LOCKER FACILITY & CAFETERIA	*★ 701	OPERATION OFFICE	1300	WHEEL WASH CLEAN WATER STORAGE	*! TSCA REGULATED UNIT - LOADING STATION ONLY	
*★ 406	CONTAINER STORAGE UNIT	*★ 702	CONTAINER MANAGEMENT UNIT	*★ 1400	TANK MANAGEMENT UNIT	* RCRA REGULATED UNIT	
*★ 520	CONTAINER AND TANK MANAGEMENT UNIT	*★ 703	ORGANIC CONTAINER & TANK MANAGEMENT UNIT (INACTIVE)	*★ 1700	LEACHATE TANK STORAGE UNITS (MULTIPLE LOCATIONS - A, B & C)		
		*★ 703A	CONTAINER MANAGEMENT UNIT				
		704	AIR COMPRESSOR BUILDING				
		707	CONSOLIDATED TECH SERVICES BLDG.				
		*★ 708	LABORATORY & TANK STORAGE UNIT				

LOADED VEHICULAR MOVEMENT →

NOTES:  
 1. TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES  
 MAPPING DATED 1/19/2020 AND 6/14/2020  
 2. FEMA 100 YEAR FLOOD PLAIN FIRM #0119C0075D EFFECTIVE 4/3/2012.



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5.0	08/22	RCRA PART B PERMIT RENEWAL

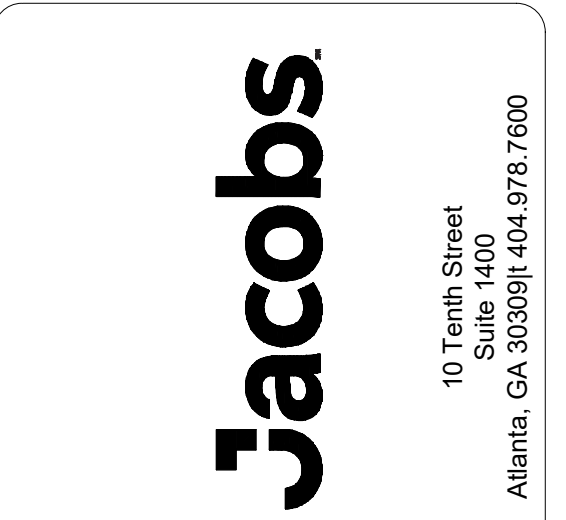
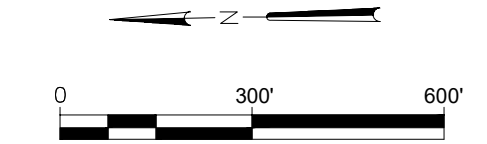


BY: KARIARA  
 LAST SAVED: 3/20/2021  
 PLOT DATE: 7/12/2022  
 CREATED: 10/12/2020

UNIT IDENTIFICATION LEGEND			
NO.	IDENTIFICATION	NO.	IDENTIFICATION
200	ADMINISTRATIVE OFFICE	900	WHEEL WASH & TANK STORAGE UNIT
201	ADMINISTRATIVE OFFICE	901	REFUELING STATION
207	GUARD HOUSE / SCALES	908	TRANSPORTATION FUELING
224	FIRE SYSTEM PUMP HOUSE/TANK	909	HEAVY EQUIPMENT FUELING
300	HEAVY EQUIPMENT MAINT./DOCUMENT STORAGE	1000	BULK SAMPLING STATION
302	DOCUMENT STORAGE	1001	UNIT 1000 BREAKROOM/OFFICE/LAB
401	PAINT & WASH BUILDING	1002	UNIT 1000 SHED
402	TRANSPORTATION SHOP	1200A	CONTAINMENT BUILDING/CONTAINER & TANK MANAGEMENT UNIT
404	SHOWER, LOCKER FACILITY & CAFETERIA	1300	WHEEL WASH CLEAN WATER STORAGE
*406	CONTAINER STORAGE UNIT	*1400	TANK MANAGEMENT UNIT
*520	CONTAINER AND TANK MANAGEMENT UNIT	*1700	LEACHATE TANK STORAGE UNITS (MULTIPLE LOCATIONS - A, B & C)
*600	TANK MANAGEMENT UNIT	*2000	CONTAINER MANAGEMENT UNIT
*602	CONTAINER STORAGE UNIT	*2001	LEACHATE TREATMENT PLANT
*603	CONTAINER STORAGE UNIT	*2200	CONTAINER STORAGE UNIT
*604	CONTAINER MANAGEMENT UNIT		
605	CENTRAL INVENTORY		
606	FACILITY MAINTENANCE SHOP		
608	C.I. FLAMMABLE STORAGE BUILDING		
*700	CONTAINER MANAGEMENT UNIT	* TSCA REGULATED UNIT	
701	OPERATION OFFICE	*1 TSCA REGULATED UNIT - LOADING STATION ONLY	
*702	CONTAINER MANAGEMENT UNIT	* RCRA REGULATED UNIT	
*703	ORGANIC CONTAINER & TANK MANAGEMENT UNIT (INACTIVE)		
*703A	CONTAINER MANAGEMENT UNIT		
704	AIR COMPRESSOR BUILDING		
707	CONSOLIDATED TECH SERVICES BLDG.		
*708	LABORATORY & TANK STORAGE UNIT		

LOADED VEHICULAR MOVEMENT →

NOTES:  
 1. TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES  
 MAPPING DATED 1/19/2020 AND 5/14/2020.  
 2. FEMA 100 YEAR FLOOD PLAIN FIRM #01119C0075D EFFECTIVE 4/3/2012.



RCRA PART B PERMIT APPLICATION  
 CHEMICAL WASTE MANAGEMENT INC.  
 EMELLE, ALABAMA TREATMENT FACILITY  
 SUMTER COUNTY, AL

REV	DATE	REVISION DESCRIPTION
5.0	08/22	RCRA PART B PERMIT RENEWAL

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE  
 THIS DRAWING MUST BE USED IN CONJUNCTION WITH THE APPLICABLE OR GOVERNING TECHNICAL SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.  
 PROJECT NO: D3279702  
 DATE: AUGUST 2022  
 DISC. LEAD: MTF  
 DESIGNER: MRC  
 CHECKER: SBT  
 SHEET TITLE  
**HEAVY EQUIPMENT MOVEMENT**  
 SHEET **FIGURE B-9**





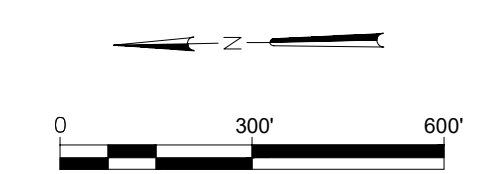
CREATED: 10/12/2020  
 BY: KARIARA  
 PLOT DATE: 7/12/2022  
 LAST SAVED: 3/20/2021

**UNIT IDENTIFICATION LEGEND**

NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION	NO.	IDENTIFICATION
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		704	AIR COMPRESSOR BUILDING				
		707	CONSOLIDATED TECH SERVICES BLDG.				
		☆ 708	LABORATORY & TANK STORAGE UNIT				



- NOTES:**
- TOPOGRAPHIC SURVEY FLOWN BY SOUTHERN RESOURCES MAPPING DATED 1/19/2020 AND 5/14/2020.
  - FEMA 100 YEAR FLOOD PLAIN FIRM #011190C0075D EFFECTIVE 4/3/2012.



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BY: KARIARA  
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 PLOT DATE: 7/12/2022  
 CREATED: 10/12/2020

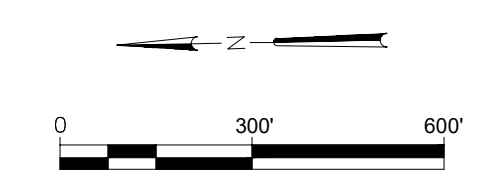
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		*☆ 703A	CONTAINER MANAGEMENT UNIT		
		704	AIR COMPRESSOR BUILDING		
		707	CONSOLIDATED TECH SERVICES BLDG.		
		*☆ 708	LABORATORY & TANK STORAGE UNIT		

**LEGEND FOR CLOSED LAND DISPOSAL UNITS**

	UNITS CLOSED IN PLACE PRIOR TO NOV. 19, 1980.
	UNITS CLOSED IN PLACE THAT DID NOT RECEIVE WASTE AFTER JULY 26, 1982.
	UNITS CLOSED IN PLACE THAT RECEIVED WASTE AFTER JULY 26, 1982.
	UNITS CLEAN CLOSED.
	SOLID WASTE MANAGEMENT UNITS WITH UNIT DESIGNATING NUMBER OR NAME

**NOTES:**  
 1. TOPOGRAPHIC SURVEY FLOW BY SOUTHERN RESOURCES  
 MAPPING DATED 1/19/2020 AND 5/14/2020.  
 2. FEMA 100 YEAR FLOOD PLAIN FIRM #01119C0075D EFFECTIVE 4/3/2012.



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**APPENDIX B-3**

**SECTION B**

**LOAD-BEARING CAPACITY CALCULATIONS**

OBJECTIVE: SHOW FOR THE EXPECTED TRAFFIC (TRACTOR TRAILERS, DJB'S AND SCRAPERS) THAT SAFETY FACTOR AGAINST BEARING CAPACITY FAILURE IS THE LOWEST FOR THE TRACTOR TRAILER.

APPROACH: LOOK AT THE EFFECTS OF TIRE SIZE, AND TIRE PRESSURE (CONTACT STRESS) HAVE ON THE THE BEARING CAPACITY EQUATION.

CALCULATIONS

<u>VEHICLE</u>	<u>LOAD</u>	<u>TIRE CONTACT AREA</u>	<u>TIRE PRESSURE (q)</u>
TRACTOR TRAILER	22K/AXLE	100 in <sup>2</sup> /DUAL WHEEL	110 psi
631D SCRAPER (TIRE 33.25-35)	50K/TIRE (MAX)	629 in <sup>2</sup> /TIRE	80 psi
DJB-330 (TIRE 18.00-33)	21K/TIRE (MAX)	221 in <sup>2</sup> /TIRE	95 psi (max)

BEARING CAPACITY EQUATION

$$q_{ult} = c N_c \gamma_c + q N_q \gamma_q + \frac{1}{2} \gamma B N_\gamma \gamma_r \quad (\text{REF 1})$$

WHERE

$q_{ult}$  - ULTIMATE BEARING CAPACITY

c = SOIL COHESION

q = SURCHARGE

$\gamma$  = UNIT WEIGHT OF SOIL

**Golder Associates**

SUBJECT BEARING CAPACITY - CRITICAL CASE		
Job No. 853-3110	Made by SGS	Date 2-6-86
Ref.	Checked JLU	Sheet 2 of 3
	Reviewed RTW	

B = WIDTH OF FOOTING (TIRE IMPRINT DIMENSION)

$N_c, N_q, N_\gamma$  - BEARING CAPACITY FACTOR

$Y_c, Y_q, Y_\gamma$  - SHAPE FACTORS WHERE,

$$Y_c = (1 + B/L N_q / N_c), Y_q = (1 + B/L \tan \phi), Y_\gamma = (1 - .4(B/L))$$

FROM THIS EQUATION IT CAN BE SEEN THAT ONLY THE TIRE IMPRINT DIMENSIONS ARE INFLUENCED BY CONTACT AREA. AS THE CONTACT AREA INCREASES SO DOES B. INCREASES IN B WILL INCREASE THE ULTIMATE BEARING CAPACITY. THE SMALLEST CONTACT AREA IS FOR THE TRACTOR-TRAILER AND THEREFORE IS MOST CRITICAL. THE B/L RATIO USED IN CALCULATING THE SHAPE FACTORS ARE NEARLY EQUAL FOR ALL 3 TYPES OF TIRE, AS SHOWN BELOW.

VEHICLE	B (in)	L (in)	$Y_c$	$Y_\gamma$
TRACTOR TRAILER	8.5	11.8	1.382	.712
631D SCRAPER	18.9	33.25	1.301	.773
DJB-330	12.3	18.00	1.362	.727

ALTHOUGH THE TRACTOR TRAILER IS NOT THE MOST CRITICAL CASE FOR SHAPE FACTOR CALCULATIONS, BY ASSUMING THE SHAPE FACTORS ARE EQUIVALENT CREATES ERRORS OF LESS THAN 6%. THIS ERROR IS CONSIDERED NEGLIGIBLE COMPARED TO THE DIFFERENCE IN CONTACT PRESSURE BETWEEN THE TRACTOR TRAILER AND THE 631D-SCRAPER.

THE SAFETY FACTOR AGAINST BEARING CAPACITY...

**Golder  
Associates**

SUBJECT BEARING CAPACITY - CRITICAL CASE		
Job No. 853-3110	Made by SGS	Date 2-6-86
Ref.	Checked JW	Sheet 3 of 3
	Reviewed RW	

FAILURE IS CALCULATED AS THE RATIO OF ACTUAL CONTACT STRESS (TIRE PRESSURE) TO ALLOWABLE CONTACT STRESS ( $q_{ult}$ ). THE TRACTOR TRAILER IS FAR MORE CRITICAL WITH A TIRE PRESSURE OF 110 PSI COMPARED TO 80 PSI TIRE PRESSURE FOR THE SCRAPER AND DJB.

CONCLUSIONS

THE BEARING CAPACITY OF THE TRACTOR TRAILER IS MOST CRITICAL. THE SAFETY FACTOR AGAINST BEARING CAPACITY FAILURE WILL BE LARGER FOR OTHER TYPES OF TRAFFIC. (SEE BEARING CAPACITY CALCULATIONS).

REFERENCES

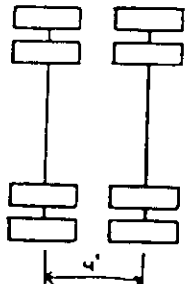
- 1) WINTERKORN AND FANG, FOUNDATION ENGINEERING HANDBOOK, 1975.

OBJECTIVE: DETERMINE THE BEARING CAPACITY OF COMPACTED CHALK ROADS. COMPARE CALCULATED BEARING CAPACITY TO REQUIRED FOR THE EXPECTED TRAFFIC LOADS.

APPROACH: USING CLASSICAL BEARING CAPACITY THEORY SHOW THAT THE ROADS ARE CAPABLE OF CARRYING TYPICAL 22<sup>k</sup> SINGLE AXLE LOADS OF TRACTOR-TRAILERS. (MAXIMUM SPECIAL PERMIT LOAD)

ASSUMPTIONS:

1) WHEEL CONFIGURATION ON TRACTOR-TRAILER

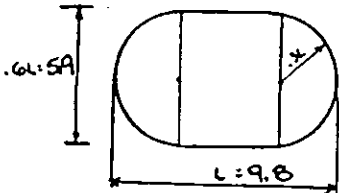


DUAL TANDEM AXLE ON TRAILER (22<sup>k</sup>/AXLE)



DUAL SINGLE AXLE ON TRACTOR (22<sup>k</sup>/AXLE)

2) TIRE IMPRINT (REF 1)



AREA OF CONTACT =  $\frac{P}{P}$

P = TOTAL LOAD ON TIRE - 5500 lb.  
 P = TIRE PRESSURE - RANGE - 100-110 lb/in<sup>2</sup>  
 USE 110 lb/in<sup>2</sup>

**Golder Associates**

SUBJECT BEARING CAPACITY		
Job No. 853-3110	Made by SGS	Date 1-31-86
Ref.	Checked J.W.	Sheet 2 of 5
	Reviewed R.W.	

2. com)

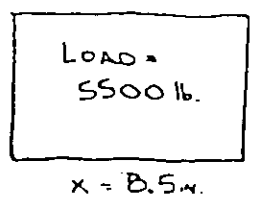
$$\text{AREA} = \frac{5500 \text{ lb}}{110 \text{ lb/in}^2} = 50 \text{ in}^2$$

$$\text{AREA} = .6L \times .4L + \pi (.3L)^2$$

$$\text{AREA} = .52L^2 = 50 \text{ in}^2$$

$$L = 9.8 \text{ INCHES}$$

FOR ANALYSIS ASSUME A SIMPLIFIED TIRE PRINT OF:



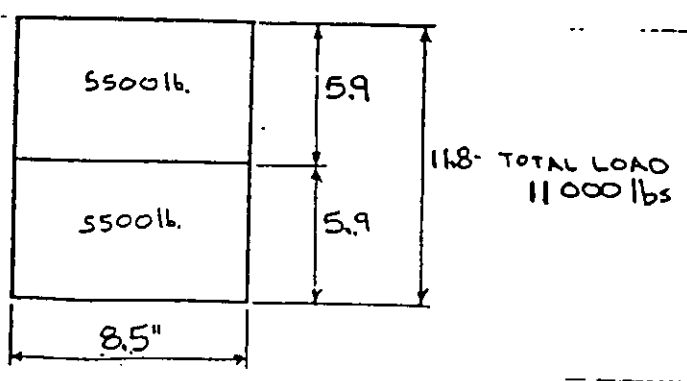
$$.6L = 5.9 \text{ in.}$$

$$\text{AREA} = 5.9 \times x = 50 \text{ in}^2$$

$$x = 8.5 \text{ in}$$

3) IT WILL BE ASSUMED THAT THE 4' SPACING OF THE DUAL TANDEM AXLES IS A WIDE ENOUGH SPACING TO NOT HAVE SIGNIFICANT INFLUENCE. (THIS IS CONSERVATIVE - NEGLECTING CONTRIBUTARY FORCES)

4. ASSUMED THAT DUAL WHEELS ON A SINGLE AXLE ACT AS SINGLE UNIT (CONSERVATIVE ASSUMPTION):





**Golder Associates**

SUBJECT BEARING CAPACITY		
Job No. 853-3110	Made by SGS	Date 1-31-86
Ref.	Checked JLU.	Sheet 3 of 5
	Reviewed BW	

CALCULATIONS:

USING CLASSICAL BEARING CAPACITY THEORY. THE ULTIMATE BEARING CAPACITY IS GIVEN BY:

$$q_{uo} = c N_c J_c + q N_q J_q + \frac{1}{2} \gamma B N_\gamma J_\gamma \quad (\text{REF 2})$$

WHERE:

$q_{uo}$  = ULTIMATE BEARING CAPACITY, psf

$c$  = SOIL COHESION (600 psf)

$q$  = SURCHARGE LOAD (0 psf)

$\gamma$  = UNIT WEIGHT OF SOIL. (130 pcf)

$B$  = WIDTH OF FOOTING (DUAL TIRE IMPRINT) (8.5)

$L$  = LENGTH OF FOOTING (DUAL TIRE IMPRINT) (14.8')

$N_c, N_q, N_\gamma$  - BEARING CAPACITY FACTORS (REF 2 - p. 127)

WHERE  $N_c = 22.25, N_q = 11.85, N_\gamma = 12.54$

$J_c, J_q, J_\gamma$  - SHAPE FACTORS (REF 2, p. 129)

WHERE  $J_c = (1 + \frac{B}{L} \frac{N_q}{N_c}), J_q = 1 + \frac{B}{L} \tan \phi, J_\gamma = 1 - 0.4 \frac{B}{L}$

USING SOIL STRENGTH PARAMETERS FOR CHALK OF  $c = 600$  psf AND  $\phi = 26^\circ$  (FROM GOLDER LAB TEST). THE ULTIMATE BEARING CAPACITY IS CALCULATED AS:

$$q_{uo} = 600 \text{ psf} (22.25) (1 + \frac{8.5}{14.8} (0.53)) + 0 + \frac{1}{2} (130 \frac{lb}{ft^3}) (\frac{8.5}{22}) (12.54) (1 - 0.4 (\frac{8.5}{14.8}))$$

$$q_{uo} = 18,450 \text{ psf} + 4,100 \text{ psf}$$

$$q_{ult} = 18,860 \text{ psf}$$

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SUBJECT BEARING CAPACITY

Job No. 853-3116  
Ref.

Made by SGS  
Checked JLV.  
Reviewed R.W.

Date 1-31-86  
Sheet 4 of 5

THE REQUIRED BEARING CAPACITY FOR TRACTOR TRAILERS IS

$$q_{\text{REQUIRED}} = \frac{11000 \text{ lbs}}{\frac{8.5 \times 11.8}{144}} = 15840 \text{ psf.} \quad (110 \text{ psi})$$

$$\text{FACTOR OF SAFETY} = \frac{q_{\text{ULTIMATE}}}{q_{\text{REQUIRED}}} = \frac{18860}{15840} = 1.2$$

AGAINST BEARING  
CAPACITY FAILURE

THIS ANALYSIS HAS SHOWN THAT BEARING CAPACITY OF THE CHALK ROAD IS ADEQUATE. DURING CONSTRUCTION OF HAUL ROADS SCRAPERS AND SHEEPFOOT WILL BE USED. THESE HEAVY LOADS WILL PREPARE A FIRM, HARD SURFACE ADEQUATE FOR SUPPORTING THE TRACTOR-TRAILER TRAFFIC.

VISUAL OBSERVATIONS AT THE FACILITY HAVE NOT NOTED ANY SIGNS OF BEARING CAPACITY FAILURES OR DEEP RUTTING ON THE EXISTING HAUL ROADS.

GRAVEL AND ASPHALT ROADS

THE APPLICATION OF GRAVEL OR ASPHALT SURFACING IS TO REDUCE THE LONG TERM MAINTENANCE OF UNSURFACED ROADS. SURFACING WITH EITHER GRAVEL OR ASPHALT OR BOTH WILL INCREASE THE THE BEARING CAPACITY OF THE ROAD SYSTEM.

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SUBJECT ROAD BEARING CAPACITY		
Job No. 853-310	Made by SGS	Date 2-3-86
Rel.	Checked J.W.	Sheet 5 of 5
	Reviewed E.W.	

CONCLUSIONS: BEARING CAPACITY OF THE ROAD SYSTEM IS ADEQUATE FOR THE TYPES OF TRAFFIC EXPECTED. THE USE OF GRAVEL OR ASPHALT SURFACING WILL INCREASE THE BEARING CAPACITY OF THE ROAD SYSTEM.

REFERENCES:

- 1) YODER, E.J. AND M.W. WITCZAK, PRINCIPLES OF PAVEMENT DESIGN. 2<sup>ND</sup> EDITION, 1975
- 2) WINTERKORN AND FANG, FOUNDATION ENGINEERING HANDBOOK, 1975.
- 3) HALLEY TRUCK SERVICE, ATLANTA GA. PERSONEL COMMUNICATION, JANUARY 1986.