REVISED RCRA FACILITY ASSESSMENT

OF

LAIDLAW ENVIRONMENTAL SERVICES, BARTOW, INC.
BARTOW, FLORIDA

EPA I.D. NO. FLD980729610

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IN RESPONSE TO:

EPA CONTRACT NO. 68-W9-0040
WORK ASSIGNMENT NO. R04-16-04

21 August 1991

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I. EXECUTIVE SUMMARY

A Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) was conducted for a solvent recovery and hazardous waste fuel blending plant operated by Laidlaw Environmental Services of Bartow, Inc. (LESB). This RFA is based on a Preliminary Review (PR) of files at the offices of the United States Environmental Protection Agency (USEPA) Region IV and the Florida Department of Regulation (FDER), and a Visual Site Inspection (VSI). The PR was conducted during May 1991 and the VSI was conducted on 20 May 1991. The purpose of the RFA is to identify Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) located at the facility, and to evaluate the potential for release of hazardous constituents to the environment. AOCs may be potential sources of release of hazardous constituents to the environment which do not necessarily involve wastes. Two previous RFAs have been conducted at the site (one in 1987, the other in 1988), but no record of the results were found during the PR (References 10, 11).

LESB operates a solvent recovery and hazardous waste fuel blending facility. The LESB facility accepts hazardous waste and off-specification solvents for reclamation to industrial grade solvents, and hazardous waste for blending into hazardous waste fuels.

A summary of SWMUs and AOCs at the facility and suggested further actions are presented in Table I-1 at the end of this section. A total of twelve SWMUs and one AOC were identified. The location of the Laidlaw Environmental Service of Bartow, Inc. facility is shown in Figure I-1.

Confirmatory sampling is recommended for one unit (SWMU No. 9), the fume hood drain collection tank. At this time, no further action is required for all other SWMUs and the AOC.

Table I-1. Summary of Findings and Suggested Further Actions

SWMU/AOC	TYPE OF UNIT	YEARS IN OPERATION	WASTES MANAGED	POLLUTANT MIGRATION PATHWAYS	EVIDENCE OF RELEASE	RELEASE POTENTIAL[1]	NEED FOR INTERIM MEASURES	RFI	RECOMMENDATION: NO FURTHER ACTION	RECOMMENDATION: FURTHER ACTION
1. Hazardous Waste Fuel Blending Area	Processing	1987-Present	D001, D018, D019, D028, D029, D030, D035, D039, D040, F001, F002, F003, F005, F037, F038, U002, U019, U044, U056, U057, U077, U112, U121, U159, U161, U210, U211, U220, U226, U228, U238, K048, K049, K050, K051, K052, K083, K086	GW, SW A S, SG	Yes	L H M	--		X	
2. Drum Staging and Storage Area	RCRA Regulated Drum Storage Building	1987-Present	Same as SWMU No. 1 and: D020, D021, D022, D023, D024, D025, D026, D027, D031, D032, D033, D034, D036, D037, D038, D041, D042, D043	GW, SW, S, A, SG	No	L M	--		X	
3. Waste-Water Collection Tank	Storage Tank	1987-Present	Storm Water Runoff. Potentially all wastes managed at the facility	GW, S, SW, SG, A	No	L	--		X	

Table 1-1. Summary of Findings and Suggested Further Actions (continued)

SWMU/AOC	TYPE OF UNIT	YEARS IN OPERATION	WASTES MANAGED	POLLUTANT MIGRATION PATHWAYS	EVIDENCE OF RELEASE	RELEASE POTENTIAL[1]	NEED FOR INTERIM MEASURES	RFI	RECOMMENDATION: NO FURTHER ACTION	RECOMMENDATION: FURTHER ACTION
4. Storm-Water Retention Ponds	Storm Water Storage	1987-Present	Storm Water Runoff	A, SW, SG, S, GW	No	L	--		X	
5. Crude Storage Area	RCRA Regulated Storage Tanks	1987-Present	*	GW, S, SW, SG, A	No	L H	--		X	
6. Intermediate Storage Area	Storage Tanks	1987-Present	Reclaimed Solvents	GW, S, SW, SG, A	No	L H	--		X	
7. Process Area	Processing	1987-Present	Waste Solvents D001, D018, D028, D029, D030, D035, D039, D040, F001, F002, F003, F005, K086, U002, U019, U044, U057, U077, U112, U121, U159, U161, U210, U211, U226, U228, U238	GW, SW A S, SG	No	L H M	--		X	
8. Amnesty Days Dumpster	Storage of Discarded Paint Cans	1990-Present	Residual Waste Paint	GW, S, SW, SG, A	No	L	--		X	
9. Fume Hood Drain Collection Tank	Storage Tank	1986-Present	Unknown	SW, SG, GW, S, A	No	L H	--			X
10. Laboratory Satellite Accumulation Containers	Satellite Accumulation	1991-Present	Acetone, Minor Sample Waste	GW, S, SG, SG, A	No	L	--		X	
11. Boot Cover Disposal Drum	Waste Collection Drum	1990-Present	*	GW, S, SW, SG, A	No	L H			X	

Table 1-1. Summary of Findings and Suggested Further Actions (continued)

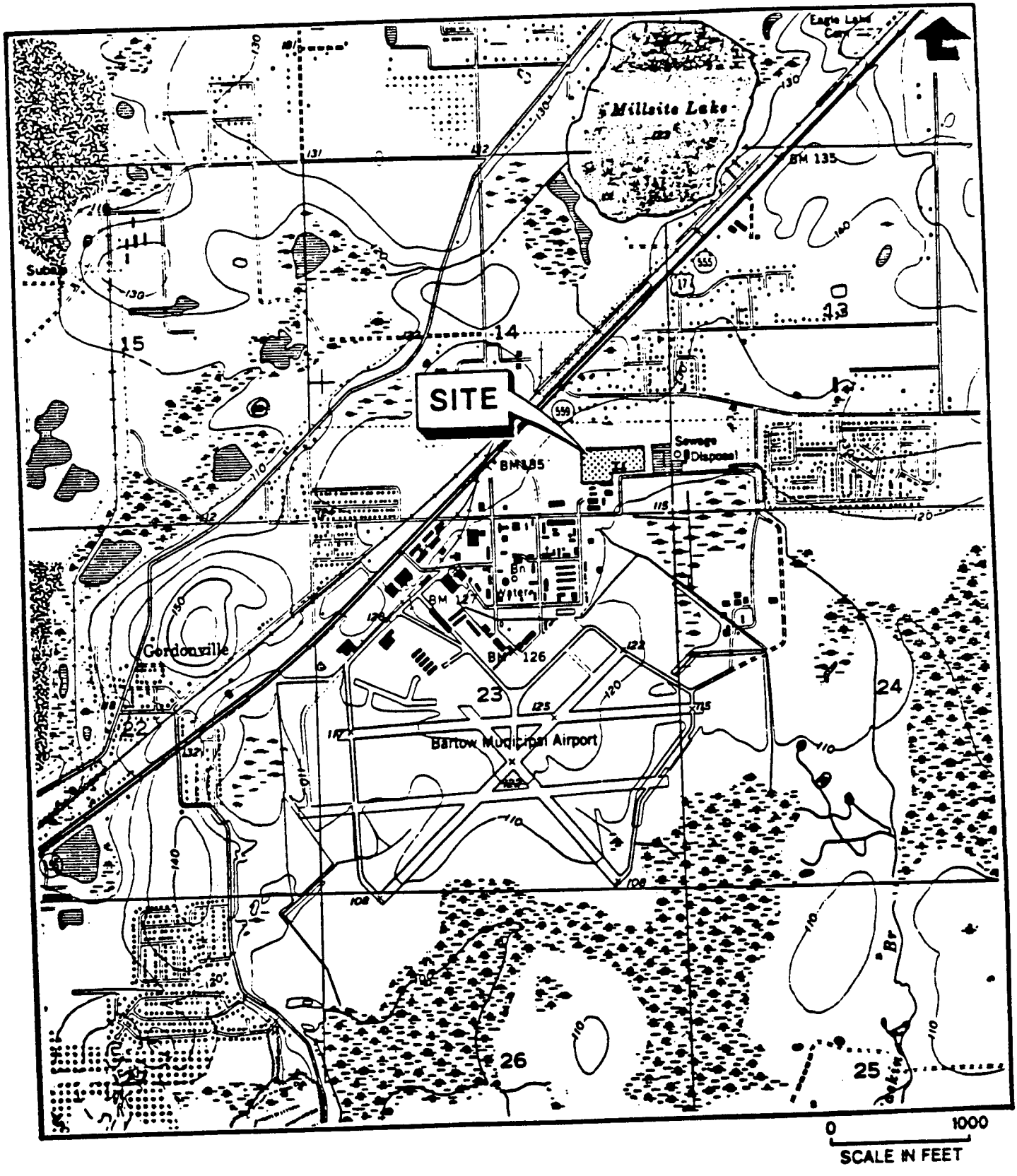
SWMU/AOC	TYPE OF UNIT	YEARS IN OPERATION	WASTES MANAGED	POLLUTANT MIGRATION PATHWAYS	EVIDENCE OF RELEASE	RELEASE POTENTIAL[1]	NEED FOR INTERIM MEASURES	RFI	RECOMMENDATION: NO FURTHER ACTION	RECOMMENDATION: FURTHER ACTION
12. Former Laboratory Trailer Drain Collection Tanks Containment Pad	Secondary Containment	1987-1990	Laboratory Reagents	GW, S, SW, SG, A	No	L	--		X	
A. Freon Wash Water Storage Tank	Storage Tank	1987-Present	Freon-Contaminated Water	GW, S, SW, SG, A	No	L	--		X	

* See SWMU No. 2

1. Release Potential: L = Low, M = Moderate, H = High
2. Migration Pathways: GW = Ground Water, S = Soil, SW = Surface Water, SG = Soil Gas, A = Air

Figure I-1

LESB Site Location
Bartow, Polk County, Florida



(Reference 15)

II. INTRODUCTION

The 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) authorized the U.S. Environmental Protection Agency (USEPA) to require corrective action for releases of hazardous wastes and/or hazardous constituents from Solid Waste Management Units (SWMUs) and other Areas of Concern (AOCs) at all operating, closed, or closing RCRA facilities. The intent of this legislation is to address previously unregulated releases of hazardous constituents to air, surface water, soil and ground water; the generation of subsurface gas is also regulated. The first phase of the USEPA corrective action program is the development of a RCRA Facility Assessment (RFA). The RFA includes a Preliminary Review (PR) of available and relevant documents, a Visual Site Inspection (VSI) and, if appropriate, a Sampling Visit (SV). Based on the results of these investigations, the SWMUs and AOCs at the facility are identified, and each SWMU or AOC is assessed for the following: (i) potential for release of hazardous constituents to the environment; and (ii) the need for corrective action.

This chapter provides a summary of the PR and VSI, and a description of the facility's history, process operations, waste management practices, and environmental setting. The SWMUs and AOCs are described in Chapter III. The tables presented in Chapter IV categorize and assess the units according to the further action required.

The references used in this report are listed in Chapter VI. Appendix A is the VSI log book and Appendix B presents the photographs documenting the physical condition of the SWMUs.

A. Preliminary Review and Visual Site Inspection

For the LESB facility PR, the A.T. Kearney (ATK) team examined available USEPA Region IV and Florida Department of Environmental Regulation (FDER) RCRA, Comprehensive Environmental Response, Compensation and Liability

Act (CERCLA), underground storage tank (UST), and air permitting files during May 1991. The information contained in the files were reviewed and evaluated.

Information concerning waste generation, treatment, storage, and/or disposal was used to formulate a tentative list of past and present SWMUs and AOCs. This list was used to plan the VSI and to identify additional information needs to be gathered on-site. The tentative list of SWMUs and AOCs, and the additional information required during the VSI were provided to LESB prior to the visit.

The VSI was conducted on 20 May 1991 by a USEPA contractor team (Mr. Steven L. Shugart, P.G., and Ms. Lynne J. France, P.G. of the A.T. Kearney Team), representatives from the USEPA Region IV (Ms. Susan Zazzali, Ms. Kimberly Charick, and Ms. Carin DeBenedictis), and a representative of the FDER (Mr. Victor San Agustine, P.E.).

An initial VSI meeting at the LESB facility began at 11:30 a.m. LESB participants were Mr. Paul W. Manak, Director of Engineering Services and Mr. Steven J. Taylor, Safety and Compliance Manager. Ms. Zazzali began the meeting by explaining the purpose and scope of the RFA and VSI. A general description of the facility and its processes was presented by Mr. Taylor. Following the initial meeting, a facility tour was conducted by the LESB representatives (Mr. Ashley T. Chadwick, Southeast Regional Manager for LESB, joined the VSI participants for the facility tour). During the tour, the facility processes and waste management procedures were explained and potential SWMUs were identified. A second meeting was held that afternoon. Potential SWMUs that had been identified during the facility tour were discussed. A second tour, including a tour of the on-site laboratory, was then conducted to photograph the SWMUs and AOCs and to clarify the facility processes. The VSI team left the facility at approximately 5:30 p.m.

B. Facility Description

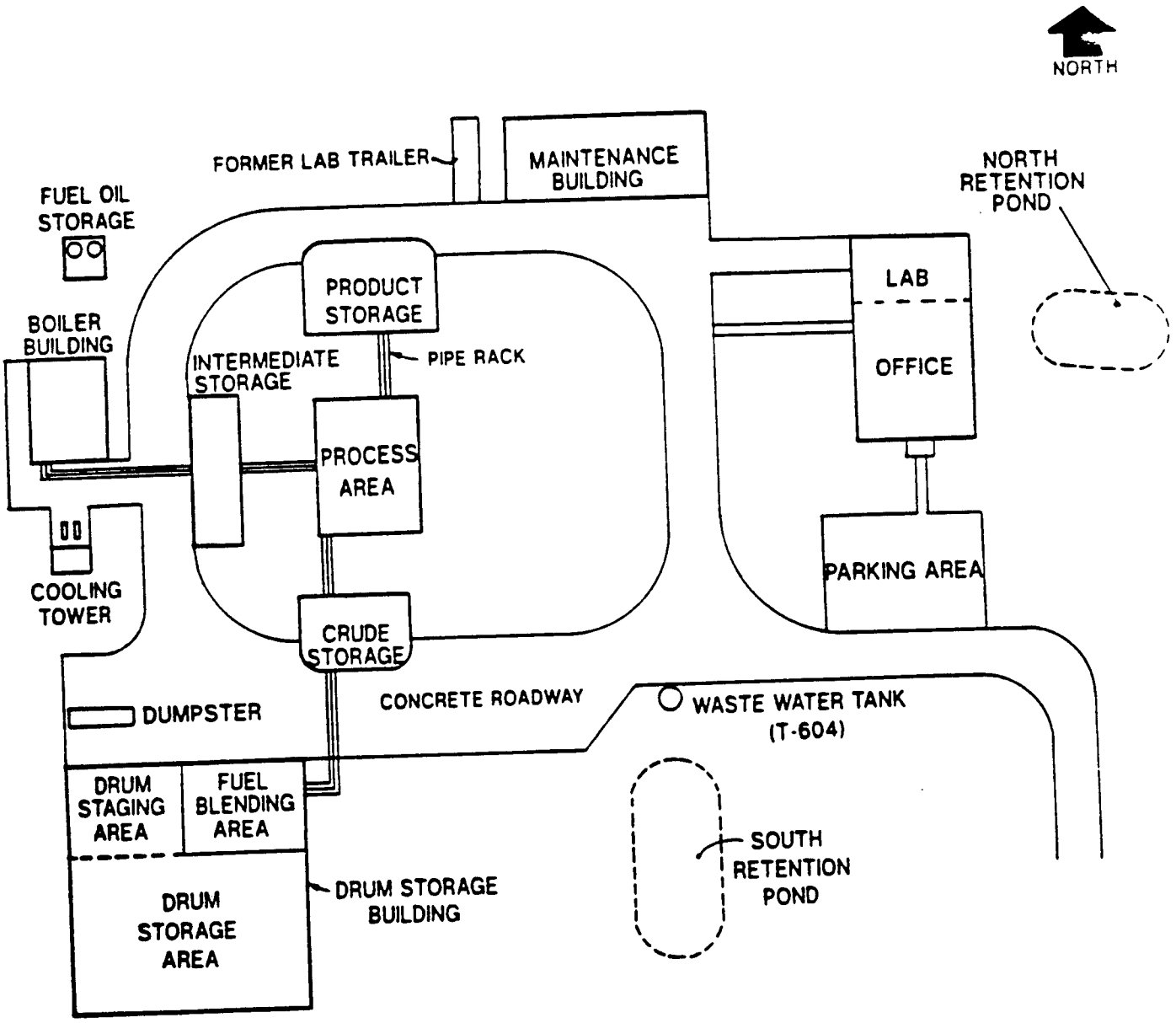
The LESB facility is located at latitude 27° 57' 05" and longitude 81° 47' 09" within the Bartow Municipal Airport Industrial Park in Polk County, Florida. The facility is approximately four miles (6.4 km) north of the city of Bartow along U.S. Route 17 (Figure I-1). LESB leases 10.2 acres (4 hectares) from the Bartow Municipal Airport at that location. Five acres (2 hectares) are fenced, and approximately 2 acres (0.8 hectares) are currently used for facility operations. The operations areas are paved and containment is provided (Reference 1).

As shown in Figure II-1, the major features of the facility include the drum storage building which houses drum staging and storage area (SWMU No. 2) and the hazardous waste fuel blending area (SWMU No. 1), the crude storage area (also called the south tank farm) (SWMU No. 5), the intermediate storage area (also called the west tank farm) (SWMU No. 6), the process area (SWMU No. 7), and the product storage area. Other site buildings include the office building (including the on-site laboratory), the maintenance building, and the boiler building. Two 6,000 gal (22,740 l), above-ground carbon steel fuel oil storage tanks for the boiler are located in the northwest corner of the property. A cinder-block containment area surrounds the fuel oil storage tanks. This fuel oil is for emergency backup only since the boiler is gas-fired. The facility has a waste-water storage tank (SWMU No. 3) T-604, located off the south border of the paved area of the facility, and two storm-water runoff retention ponds identified as the north and south retention ponds (SWMU No. 4).

The facility layout has remained primarily the same since its construction in 1986 by International Solvent Recovery, Inc. (ISR). Prior to 1986, the site was owned by the U.S. Department of Defense. At that time an Air Force barracks and golf course were located at the site (Reference 2). In July 1986, prior to the start of operations, the facility was purchased from ISR by Tricil Recovery Systems (Tricil) and

Figure II-1

LESB Facility Layout



(Reference 1)

in March of 1987 the facility began receiving wastes for solvent recovery (Reference 1). In August, 1987 Tricil submitted to FDER a Notification of Hazardous Waste Activities Form listing Tricil as a marketer of hazardous waste fuels (Reference 4). The present on-site laboratory space in the back of the office building was originally leased and operated by Wadsworth/Alert Laboratories Inc. (Reference 2). Tricil operated their laboratory from a separate Laboratory Trailer, located on the west side of the maintenance building. In 1991, when Wadsworth/Alert's lease was up, Tricil moved into that space and began operating a laboratory in the back of the office building. In 1990, the facility was purchased by Laidlaw Environmental Services and the name of the facility was changed to Laidlaw Environmental Services of Bartow, Inc. (LESB) in May 1991 (Reference 1).

The hazardous waste storage capacity of the facility is summarized below (Reference 5):

- *Drum Storage Building*: 81,800 gal (31,000 l);
- *Crude Storage Area (South Tank Farm)*: 60,000 gal (227,400 l);
- *Bottoms Receiver (West Tank Farm)*: 14,000 gal (53,060 l); and
- *Intermediate Storage Area (West Tank Farm)*: 60,000 gal (227,400 l).

The product storage capacity is summarized below (Reference 1):

- *Product Storage Area*: 88,000 gal (333,520 l).

In 1990 the facility reclaimed 500,000 gal (1.9 million l) of solvent and processed 1.5 million gal (5.7 million l) of hazardous waste fuels (Reference 30).

C. Process Description

The LESB facility is a hazardous waste recovery and storage facility that produces two general products: reclaimed solvents suitable for industrial use, and hazardous waste fuels to be used in permitted incinerators. The facility receives wastes from the following industries (Reference 1):

- aerospace;
- automotive;
- chemical;
- metals finishing;
- petrochemical;
- plastic;
- printing;
- ink;
- soap;
- steel;
- photographic;
- coatings; and
- electronics.

A list of the different wastes that the facility is permitted to receive is compiled in Table II-1 (Reference 6). The list of wastes that LESB has requested to be permitted in their September 1990 Part B permit application is considerably more extensive (Reference 5).

1. Waste Receiving and Handling

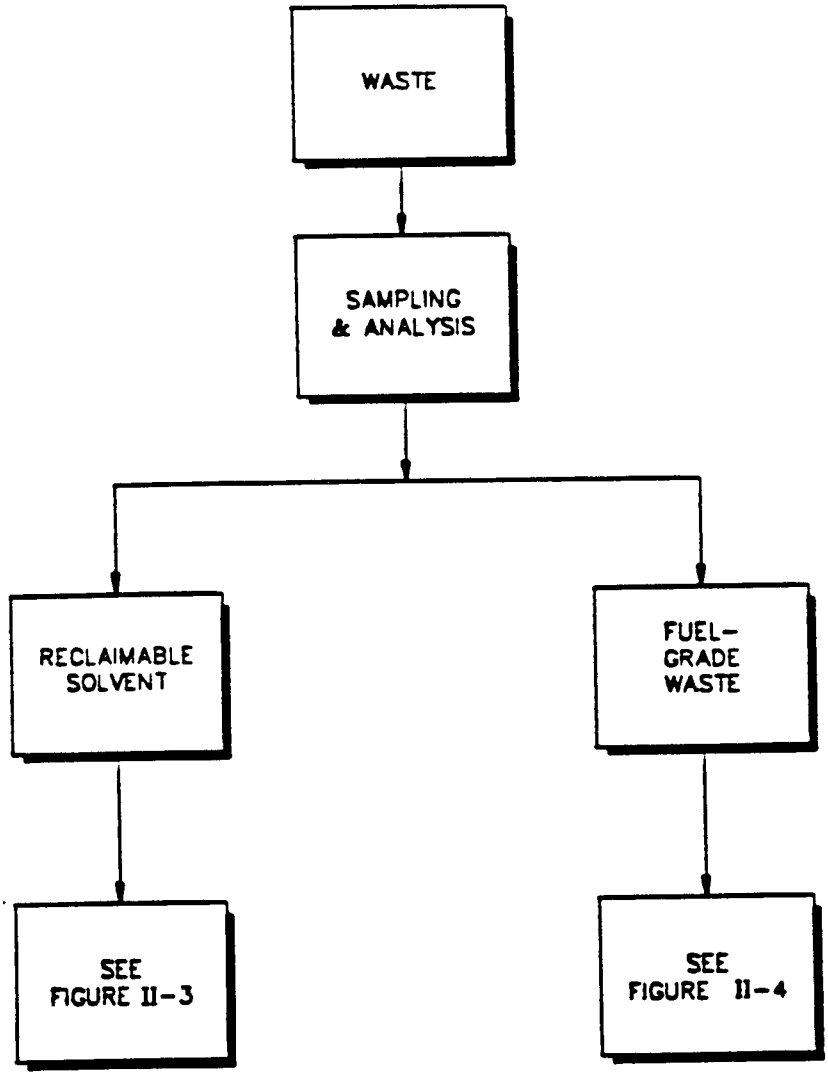
Wastes arrive at the facility either in bulk shipments or in 55-gal (208-l) drums. Upon arrival at the facility, LESB samples and analyzes all drums and bulk shipments and categorizes all incoming wastes into two general categories: reclaimable solvents and fuel-grade wastes. The flow of wastes through LESB is shown diagrammatically in Figures II-2 through II-4 (Reference 5).

Table II-1. Wastes Managed at LESB

D001	F002
D018	F003
D019	F005
D020	F037
D021	F038
D022	K048
D023	K049
D024	K050
D025	K051
D026	K052
D027	K083
D028	K086
D029	U002
D030	U019
D031	U044
D032	U056
D033	U077
D034	U112
D035	U121
D036	U159
D037	U161
D038	U210
D039	U211
D040	U220
D041	U226
D042	U228
D043	U238
F001	

Figure II-2

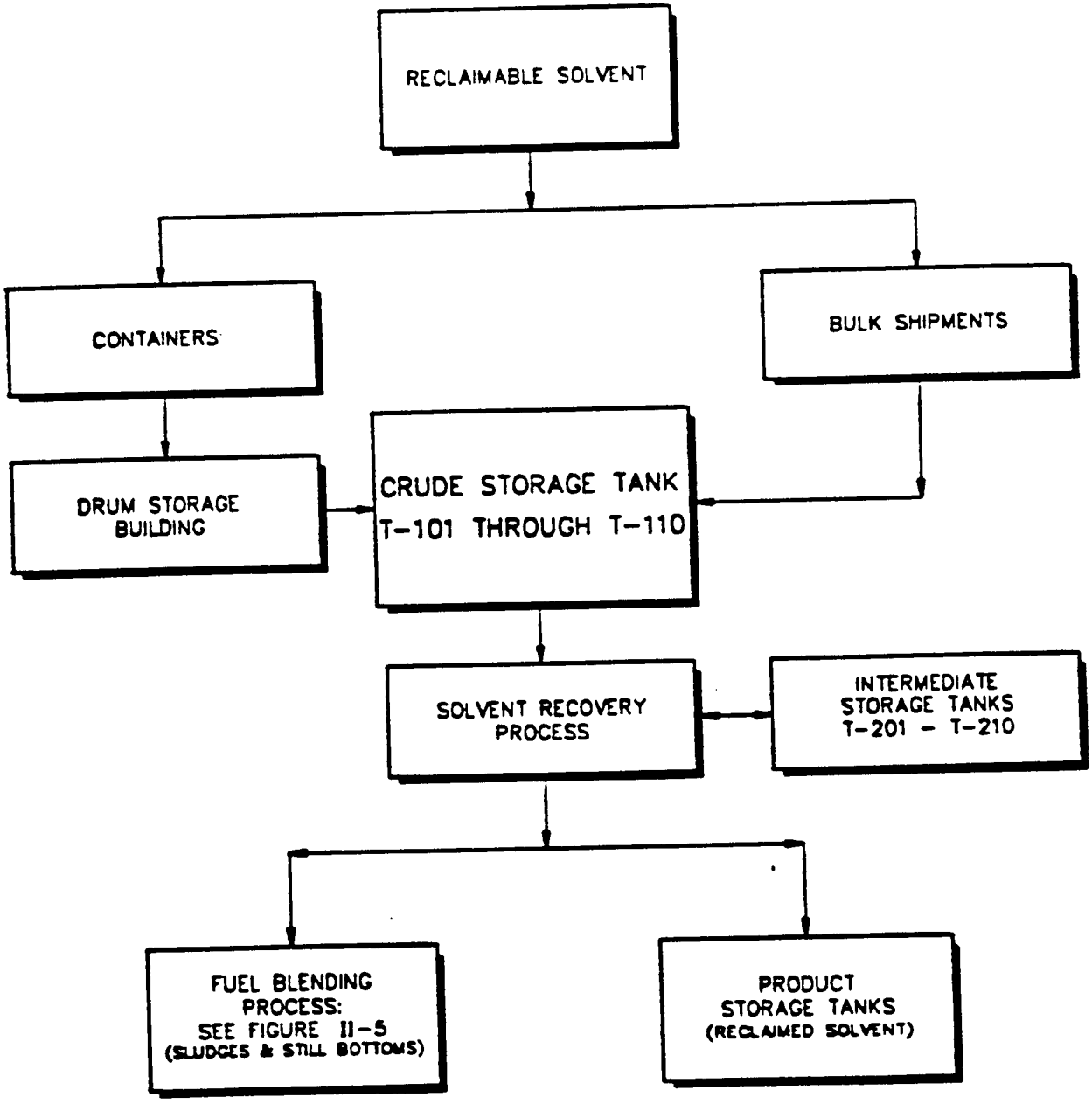
Flow Chart of Waste Through LESB



(Reference 5)

Figure II-3

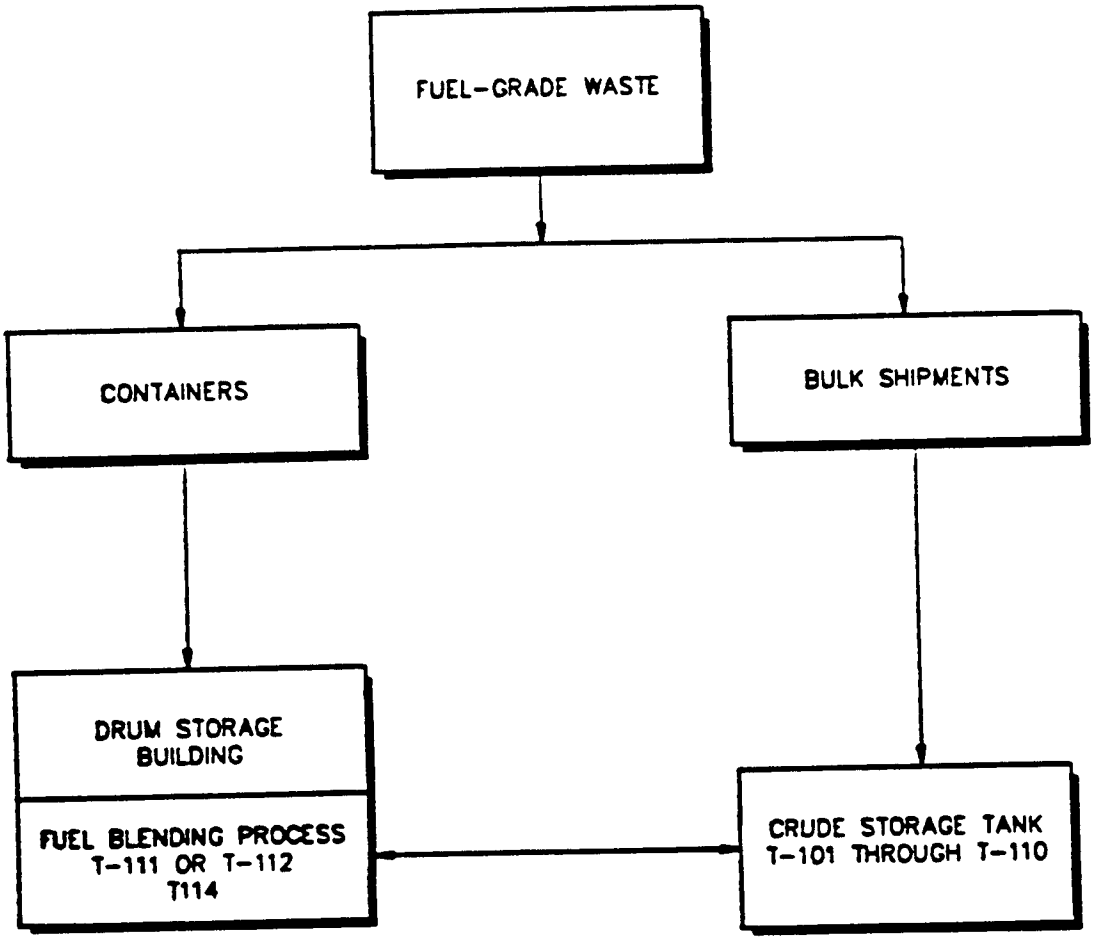
Flow Chart of Waste
LESB Solvent Recovery Process



(Reference 5)

Figure II-4

Flow Chart of Waste
LESB Hazardous Waste Fuel Blending Process



(Reference 5)

Bulk shipments are sampled and analyzed and, if found to be acceptable, are pumped into the crude storage tanks in the south tank farm (i.e., Tanks T-101 through T-110) (SWMU No. 5). The pumping occurs via overhead pipes that run from the hazardous waste fuel blending area to the storage tanks (Reference 1).

Wastes that arrive in drums are unloaded into the staging area and are sampled and categorized. Those wastes designated for use in hazardous waste fuel blending are stored in the drum storage building prior to blending operations. Drums of solvent-recoverable wastes are brought into the fuel blending area where the lids are opened and the waste is pumped into the crude storage tanks. This pumping is accomplished using a non-sparking wand assembly connected to the overhead piping system.

Drums which are empty (i.e., according to 40 CFR 261.7) are loaded on tractor trailers for shipment to a drum reclaimer, and scrap steel recycler (see Photograph AA).

2. Solvent Recovery

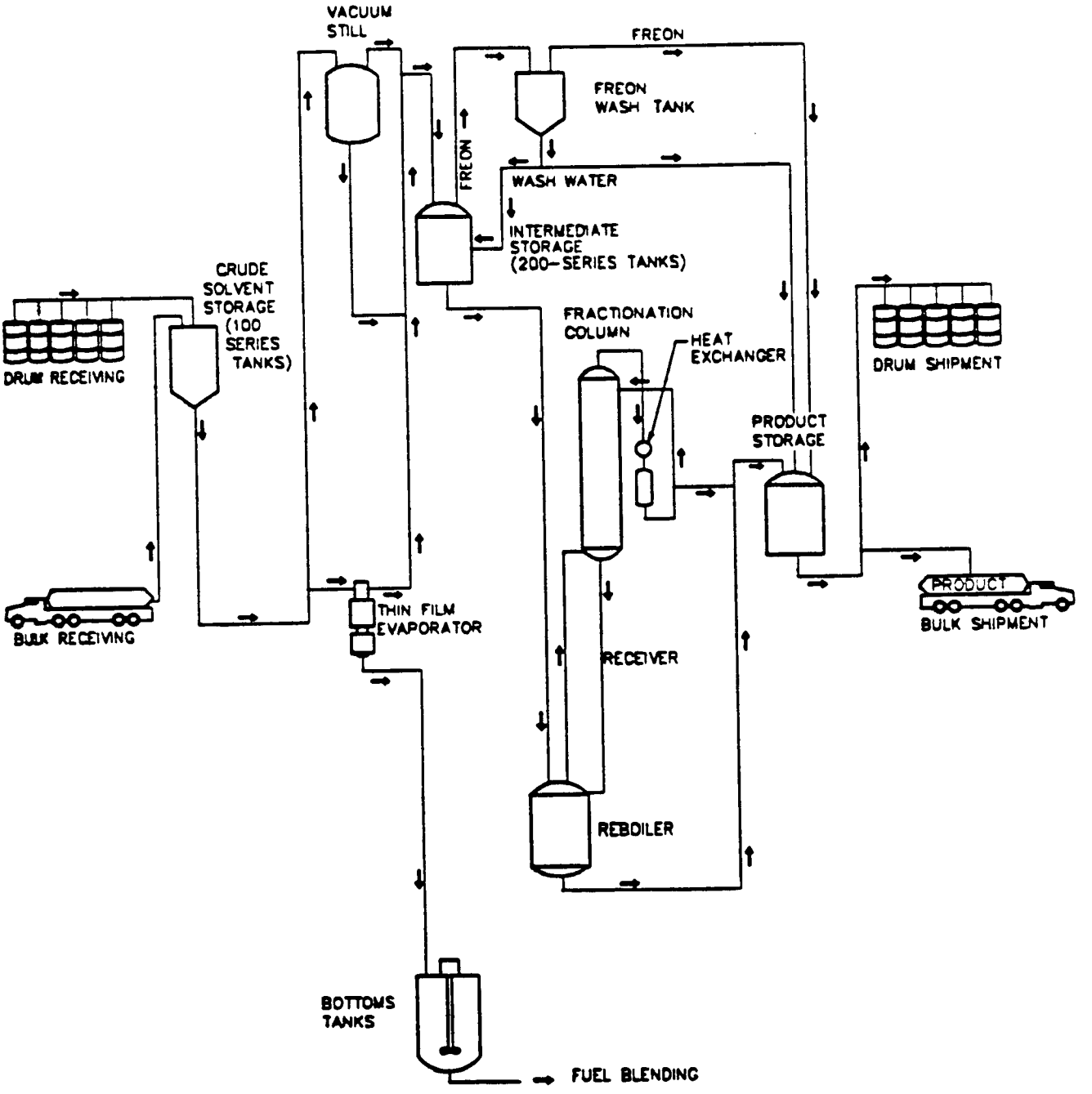
The LESB facility is capable of processing the organic solvents wastes listed in Table II-2 (Reference 5). A schematic diagram of the process is shown in Figure II-5. Waste solvents that are reclaimable are stored in the crude storage tanks (Tanks T-101 through T-110). From the crude storage tanks, the waste solvents are piped to either the vacuum still, or the thin film evaporator (TFE), for reclamation. If the resulting product meets the specifications for use as solvent, it is transferred to the product storage tanks (T-301 through T-310). If additional processing to remove contaminants is required, the solvent is transferred to the intermediate storage tanks (T-201 through T-210 in the west tank farm (SWMU No. 6). The additional processing is accomplished using a fractionation column and reboiler. Following fractionation, the solvent is transferred to the product storage tanks.

Table II-2. Wastes Used for Solvent Recovery

D001
D018
D028
D029
D030
D035
D039
D040
F001
F002
F003
F005
K086
U002
U019
U044
U057
U112
U121
U159
U161
U210
U211
U228
U236
U238

Figure II-5

Solvent Reclamation Process Flow Diagram



Freon, which is immiscible in water, is an exception to the above processing procedure. Freon is first processed in a freon wash tank (a liquid-liquid separator) in which water is introduce to the solvent in order to dissolve contaminants. Final processing of freon is accomplished in the fractionation column. Process water used in the freon wash tank is stored in a tank in either the west tank farm (SWMU No. 6) or the product storage area (AOC A). The water is recycled and, upon saturation with contaminants, is processed through the fractionation column. Ultimately, water which can no longer be recycled is shipped off-site for incineration at a permitted hazardous waste incinerator.

The vacuum still, TFE, freon wash tank, fractionation column, and reboiler are all located in the process area (SWMU No. 7). Transfer of the solvent between the process area units and the various tank storage areas is accomplished through overhead piping.

Sludges and still bottoms resulting from the reclamation process are pumped to two bottoms receiver tanks (R-2 and R-3) located in the west tank farm (SWMU No. 6). When the still bottoms are too viscous to be pumped, they are shoveled into two satellite containers (i.e., 55-gal (208-l) drums) located in the process area (Reference 7). Both the material in these satellite containers and the sludge in the bottoms receiver tanks are sampled and analyzed. If suitable, the still bottoms and sludge are used as fuel-grade wastes in the hazardous waste fuel blending process described in the following section.

3. Hazardous Waste Fuel Blending

Wastes that can be used in the fuel blending are listed in Table II-3 (Reference 5). These include wastes that are too viscous or contaminated to be reclaimed. The primary sources of waste used in fuel blending include bulk shipments which are stored in the crude storage tanks in the south tank farm (SWMU No. 5), drummed waste stored in the drum storage building (SWMU No. 2), and still bottoms and sludges accumulated in tanks

Table II-3. Wastes Used in Hazardous Waste Fuel Blending

D001
D018
D019
D028
D029
D030
D035
D039
D040
F001
F002
F003
F005
F037
F038
K048
K049
K050
K051
K052
K083
K086
U002
U019
U044
U056
U057
U077
U112
U121
U159
U161
U210
U220
U226
U228
U238

R-2 and R-3 resulting from the solvents recovery process. Two relatively minor sources of fuel-grade wastes are generated from the sampling and analysis of in-coming shipments. First, the unused portion of drum and tank-truck samples are stored on-site (in a cabinet in the drum storage building) for 30 days. After this time the wastes are blended in hazardous waste fuels. Second, during the analysis of samples in the on-site laboratory, rinsate from the laboratory glassware cleaning procedure is accumulated in two 5-gal (19-l) plastic containers (jugs) stored in fume hoods. Approximately once per month, the 5-gal (19-l) satellite containers are emptied into an accumulation drum in the drum storage building. The rinsate, predominantly acetone, is ultimately used as fuel-grade waste (Reference 7).

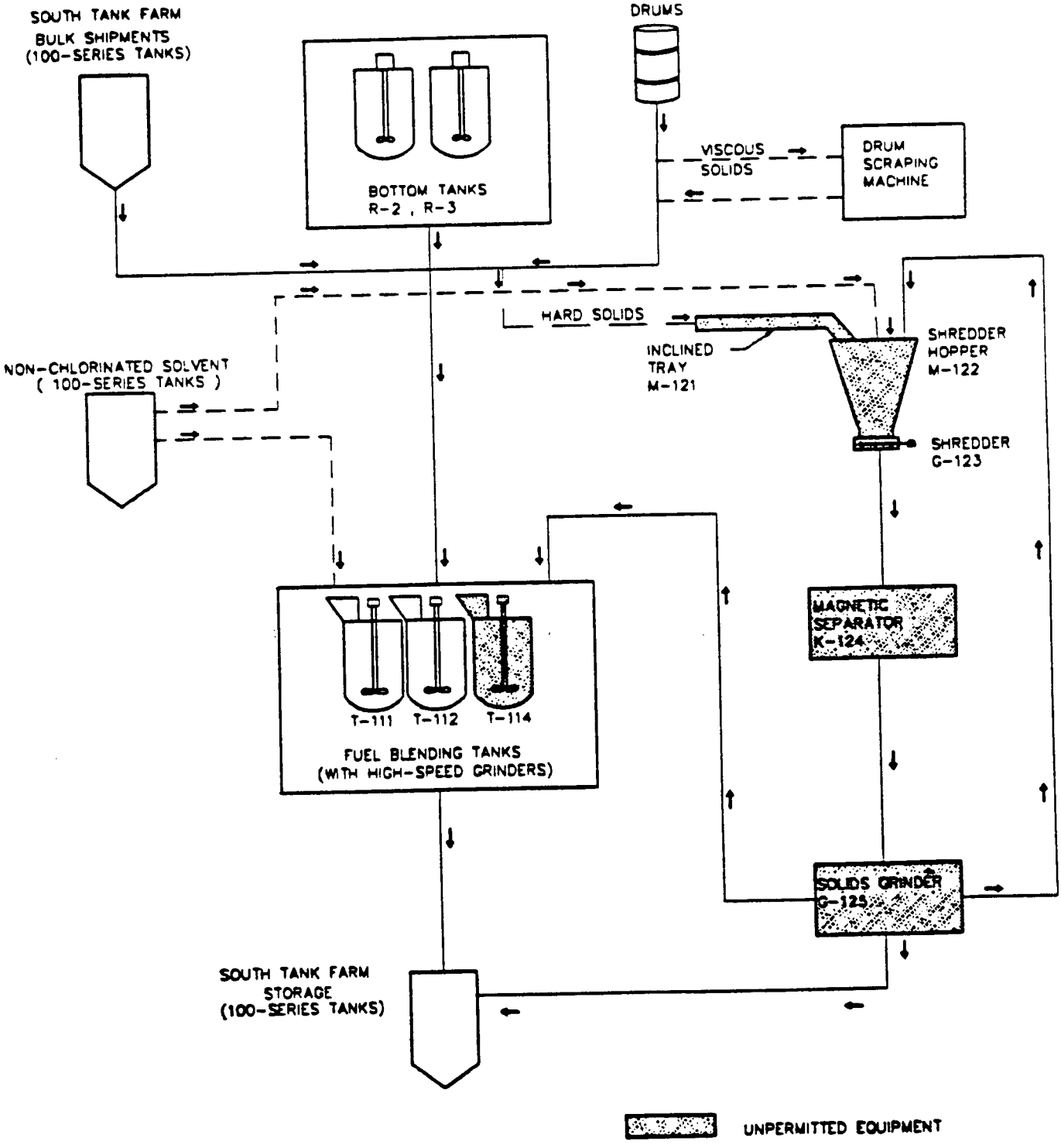
In order to be marketed as hazardous waste fuel, the resulting mixture must have a greater than 5000 BTU per gallon (1317 BTU per liter). Additionally, it must not contain particles which can not pass through a 1/8-in. (4-mm) screen.

The hazardous waste fuel blending process is shown diagrammatically in Figure II-6. The processing units used in the fuel blending process include three sludge mixing tanks (T-111, T-112 and T-114), a Pegasus drum scraper, and a shredder/grinder assembly. The tanks, drum scrapper and shredder/grinder are discussed below.

Tank T-111 was the original sludge mixing tank constructed by ISR. Due to its relatively small volume, (680-gal (2,577-l)) tank T-111 is rarely used. Instead, most of the processing is done through T-112 which has a volume of 980 gal (3,714 l). Tank T-114 was used for approximately 2 months in late 1989, and early 1990, but was taken out of operation following an FDER inspection which determined that T-114 was not permitted (Reference 4). In addition, T-114 had mechanical problems which rendered it inoperable. Currently T-112 is the only tank being used for fuel blending; however, T-111 is permitted and could be used if necessary. An air permit is pending on T-114. All three tanks have

Figure II-6

Hazardous Waste Fuel Blending Process Diagram



internal high-speed grinders which are capable of grinding relatively soft solids to the required size of 1/8-in. (4-mm). In the event that drummed material is too viscous to be poured from the drum, the drum can be cored in the Pegasus drum scraper. This machine rotates a coring blade between the drum wall and the material in the drum, loosening the material. Following scraping, the contents of the drum can be placed in any of the blending tanks or in the shredder hopper. Currently, the material is only placed in T-112 or T-111 as the other equipment is not yet permitted.

The shredder/grinder assembly is also not being operated pending an air permit. This equipment will be used for reducing hard solids to a size that can be blended. The assembly consists of an inclined tray (M-121), a shredder hopper (M-122), the shredder (G-123), a magnetic separator (M-124), and a solids grinder (G-125). For processing, the drum of solids is poured onto the inclined tray where non-combustible material can be manually removed prior to entering the hopper and shredder. Following shredding, the material goes through a magnetic separator to further remove non-combustible material. The material then is pumped through a grinder which further reduces the particle size. If particles greater than the required 1/8-in (4-mm) size remain, the mixture is pumped through the shredder again. If the resulting mixture is suitable as a hazardous waste fuel, it can be pumped directly to storage in the crude storage area (SWMU No. 5) . It can also be pumped to any of the three blending tanks for blending with other source material.

In some cases, it is necessary to add a solvent to the blend in order to make the mixture pumpable. When this is done, a solvent is pumped through overhead piping from the process area or one of the tank farms to the fuel blending area. A solvent is selected based on its BTU value (>5000 BTU/gal (>1,319 BTU/l)), and its chlorine content. Chlorinated solvents are not used in this process.

Non-viscous wastes are poured, or pumped, directly into either T-112 or T-111. The various fuel-grade wastes are blended together until the wastes meet fuel specifications for chlorine content and BTU value (>5000 BTU/gal (1,379 BTU/l)). The fuel is pumped via overhead pipelines to the crude storage tanks (SWMU No. 5) where it is accumulated for shipment to permitted incinerators (Reference 8).

E. Management of Facility-Generated Wastes

Wastes that are generated on-site include the following:

- waste-water from sumps and runoff;
- sludges and still bottoms from solvent recovery;
- disposable boot covers from the maintenance building;
- freon processing waste-water; and
- laboratory wastes.

The disposal of each of these waste streams is described in the following sections.

1. Waste Water From Sumps and Storm-Water Runoff

Waste-water from the processing and storage areas of the site is accumulated in a 6,000-gal (22,740-l) waste-water collection tank (T-604) (SWMU No. 3). Tank T-604 is located off the southern border of the paved portion of the facility. This tank receives water from sumps located in secondary containment areas for the crude storage area (SWMU No. 5), the drum storage building (SWMUs No. 1 and No. 2), the process area (three sumps, see Photograph DD) (SWMU No. 7), the intermediate storage area (SWMU No. 6), and the product storage area (see Photograph EE). In addition it receives storm-water runoff from the paved areas of the site from approximately the first 15 minutes of storm events (see Photograph FF). The remaining storm-water runoff from the facility is directed to two retention ponds: one located south of the paved area and the other located east of the office building.

Sumps in the drum storage building are located at both ends of a central east-west trending floor drain. This drain receives water, or waste, from the entire building as the floor slopes toward the drain. Although there is a wall between the hazardous waste fuel blending area and the drain, holes have been drilled through the wall to allow any water or spillage to reach the drain.

The water that is accumulated in the waste-water tank is analyzed for total organic carbon (TOC), biological oxygen demand (BOD) and purgeable organics (i.e., GC scan) by the on-site laboratory. Upon confirmation that the water meets the criteria for disposal into the Bartow Waste Water Treatment Plant, the water is discharged to that facility.

2. Sludges and Still Bottoms

The majority of the sludges and still bottoms are accumulated in two bottoms receiving tanks (R-2 and R-3) located in the intermediate storage area (SWMU No. 6). Additional sludges and still bottoms are accumulated in two 55-gal (208-l) satellite accumulation drums located in the process area (SWMU No. 7). The material from both sources is sampled and analyzed on site and is either used as feed for the hazardous waste fuel blending process or, if it does not meet the criteria for fuel-grade wastes, is shipped off-site for disposal.

3. Disposable Boot Covers

LESB workers who enter the break room in the maintenance building are required to wear disposable boot covers. After use, these boot covers are disposed of in an overpack drum located in the maintenance building. This material is treated as hazardous waste and is shipped off-site for incineration at a permitted hazardous waste incinerator (Reference 7).

4. Freon Processing Waste Water

The water used in the freon wash tank is recycled through the processing system. When not in use it is stored in a tank in either the intermediate storage area (SWMU No. 6) or the product storage area (AOC A). Upon saturation with contaminants, it is processed through the fractionation column. When it can no longer be recycled, it is stored in one of the product storage area tanks (AOC A) and then shipped off-site for disposal at a hazardous waste incinerator (Reference 1).

5. Laboratory Wastes

Laboratory wastes include unused portions of drum and tank samples and rinsate from glassware cleaning. Unused portions of the samples are stored in a metal cabinet along the west wall of the drum storage building. After 30 days, the laboratory wastes are placed in an accumulation drum for storage until mixing as fuel-grade wastes in the hazardous waste fuel blending process.

The glassware rinsate, which is predominantly acetone, is accumulated initially in two 5-gal (19-l) plastic containers in the laboratory (SWMU No. 10). These containers are stored under the fume hoods. Approximately once per month these containers are emptied into an accumulation drum in the drum storage building for storage until the material is processed as hazardous waste fuel (Reference 7).

Prior to the present laboratory facility (located in the back of the office building), the facility operated a laboratory in a trailer located on the west side of the maintenance building. Wastes from this laboratory were collected from a drain in the trailer into two 250-gal (948 l) polyethylene tanks located on a bermed concrete containment pad. This pad is situated between the trailer and the maintenance building. Wastes collected in these tanks were used in the hazardous waste fuel blending process.

E. Regulatory History

The LESB facility was one of the first facilities in the state of Florida to be regulated under RCRA for its entire history. It was constructed by International Solvents Recovery (ISR) under an FDER construction permit on property that had previously been used for a golf course and Air Force barracks. Presently the facility is operating under an FDER operating permit (issued 6 November 1985) (Reference 9). This permit expired on 6 November 1990 and has been extended while a new FDER operating permit is issued. The facility has undergone periodic compliance inspections by both the USEPA and FDER since the completion of it's construction in 1986. These inspections have resulted in some citations of violations at the facility.

F. Release History

A known release occurred at the facility in April 1989 and another release was cited during a May 1990 FDER inspection (Reference 12). The 1989 release involved release of a maximum of 2.5 gal (9.5 1) of dicyclopentadiene to air via the cooling tower when a pump seal in the vacuum still cooling water system leaked (References 13, 14). This release was resolved in a consent agreement (Reference 45). LESB no lnger processes this compound. The configuration of the vacuum still water seal cooling system was changed to a closed loop system so that contaminated seal water could no longer intermix with cooling tower water (Reference 51). No correspondence, other than the FDER interoffice memorandum referenced above, concerning the 1990 release was found during the PR.

G. Environmental and Demographic Setting

1. Meteorology

The climate of Polk County is subtropical, with humid, rainy summers and dry, mild winters. Convective thundershowers can occur in the summer rainy season. The county receives between 50 and 54 in. (1.27 and 1.37 m) of rainfall annually. About half the annual rainfall occurs during June through September. Average monthly temperatures range from 61° F in January to 82° F in July and August (Reference 17).

2. Floodplain and Surface Waters

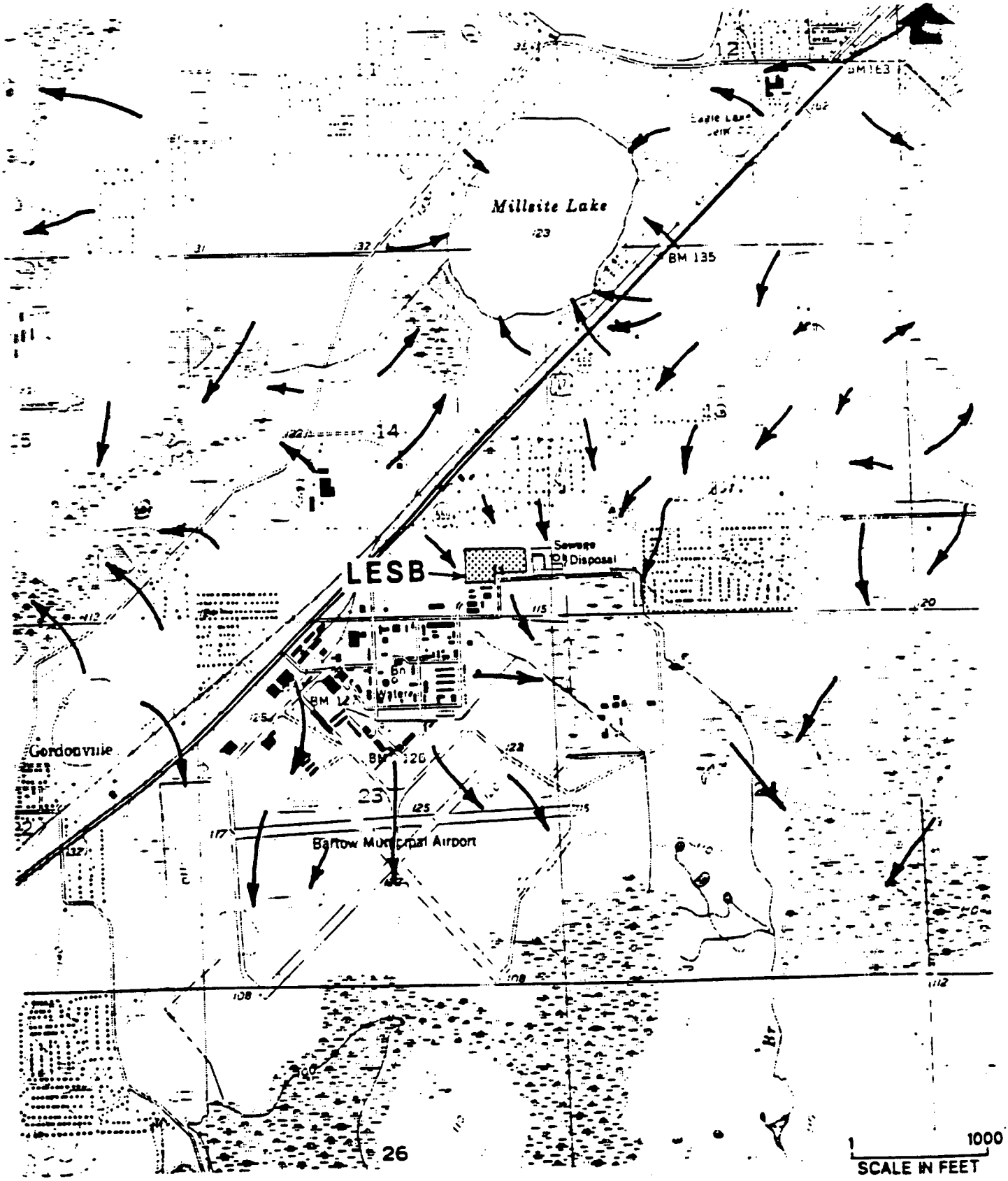
The LESB site is located near the center of the Florida peninsula. Several low ridges trend from north to south across the county; the site lies between two of these ridges. The elevation at the site is approximately 120 ft (37 m) above mean sea level (msl), and is relatively flat. The highest topographic features in the immediate area of the site are gypsum waste piles resulting from the mining of phosphate. These piles range up to elevations over 160 ft (49 m) above msl (Reference 18).

The dominant surface-water feature in the site area is Lake Hancock, which has an area of 4,540 acres (Reference 17) and lies 2 mi (3.2 km) west of the LESB site. The surface of Lake Hancock fluctuates, and is generally below elevation 100 ft (30 m) msl. Several smaller lakes lie to the north and northeast, within the upland ridge area. To the north, south, and east are low-lying, swampy, areas. Surface water drainage from the LESB site, the surrounding industrial areas, and Bartow Airport (immediately to the south of the industrial areas) is into these swamps (Figure II-7).

Saddle Creek drains Lake Hancock under artificial control, and Peace Creek drains the area south and east of the LESB site. The confluence of these two creeks, 3 mi (48 km) southwest of the site, marks the

Figure II-7

Surface Water Drainage in LESB Site Vicinity



(Reference 5)

beginning of the Peace River, which flows southward. The LESB site lies along the divide between these two basins, at the headwaters of the Peace River.

The 100-year floodplain is shown in Figure II-8 (Reference 19). Those areas designated as Zone A generally correspond to the local swamps. At its closest point, the floodplain is approximately 1,300 ft (396 m) from the site.

3. Land Use

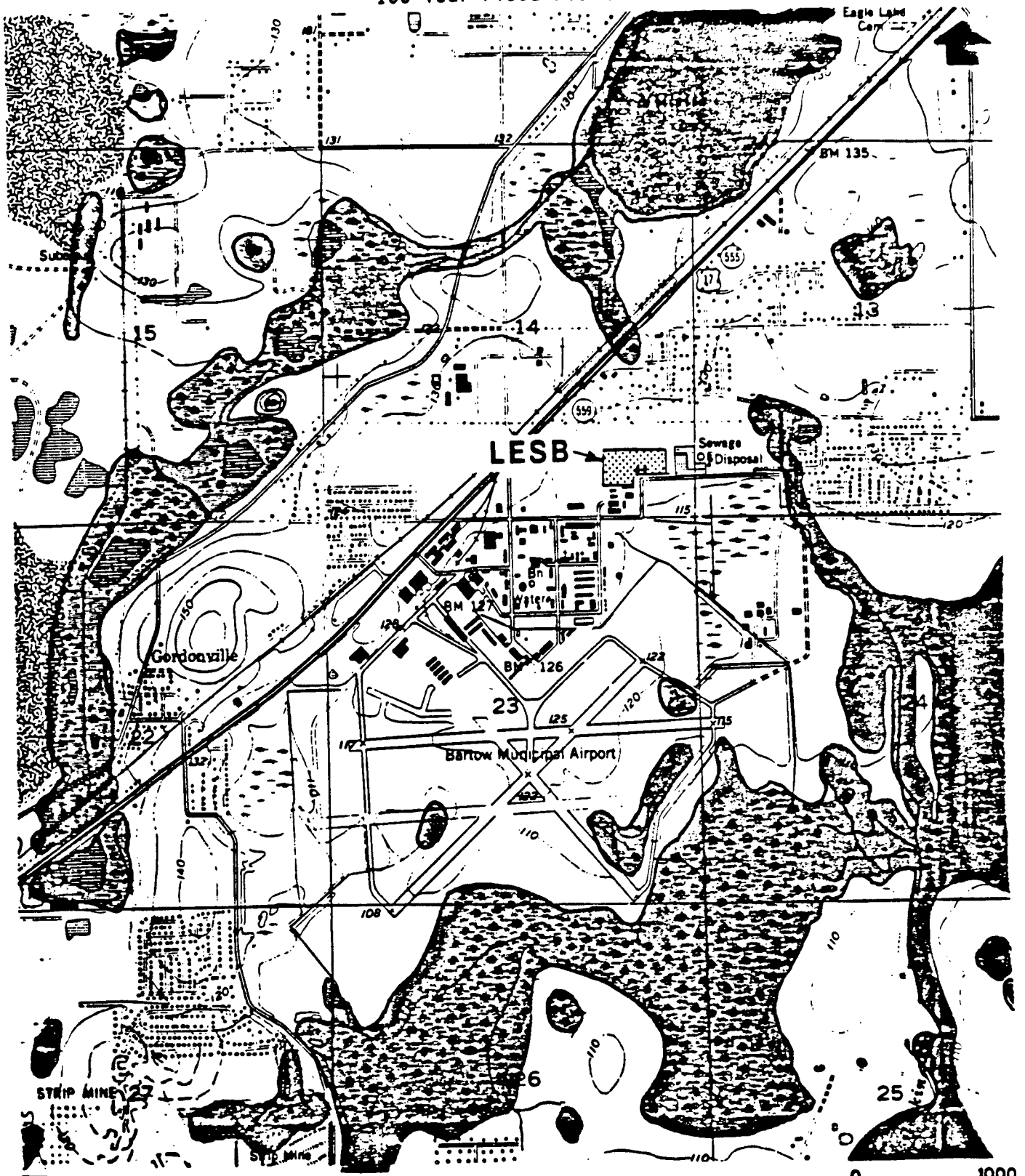
U.S. Highway 17 and a parallel rail line pass within 500 ft (150 m) of the site along slightly elevated ground to the northwest. On the opposite side of the highway and rail line, and also at a slightly higher elevation than the LESB site, are citrus groves. Much of the surrounding area has been strip-mined for phosphates, including large areas along the eastern shore of Lake Hancock. The other major land use is agriculture, primarily citrus production.

4. Soils and Geology

The stratigraphy and lithology of the region have been described by Miller et al. (Reference No. 20). Table II-4, adapted from earlier work by Wilson and Gerhart (Reference 21), is reproduced from their report. The uppermost geologic deposits in the study area are Holocene and Pleistocene age sands, interbedded clays, marl, shell, limestone and phosphate.

Below the surficial sands, which range in thickness from 5 to 30 ft (1.5 to 1.9 m), are interbedded clay, clayey sand, marl, and shell of the Pliocene-age Bone Valley Formation. Miocene-age dolomite, sand, clay, and limestone of the Hawthorn Formation underlie the Bone Valley Formation. The Tampa Limestone, also of Miocene age, underlies the Hawthorn Formation. These three formations comprise the intermediate

Figure II-8
100 Year Flood Plain



ZONE A 100 YEAR FLOOD PLAIN

ZONE C AREAS OF MINIMAL FLOODING

SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP COMMUNITY PANAL, 20621 0525B, EFFECTIVE DATE JANUARY 19, 1988.

(Reference 19)

Table II-4. Stratigraphy and Hydrogeologic Units in the LESB Area

System	Series	Stratigraphic unit	General lithology	Major lithologic unit	Hydrogeologic unit
Quaternary	Holocene, Pleistocene	Surficial sand, terrace sand, phosphorite	Predominantly fine sand; interbedded clay, marl, shell, limestone, phosphorite	Sand	Surficial aquifer
Tertiary	Pliocene	Bone Valley Formation[1]	Clayey and pebbly sand; clay, marl, shell, phosphatic	Carbonate and clastic	Intermediate aquifer system (consists of first and second artesian aquifers)
	Miocene	Hawthorn Formation	Dolomite, sand, clay, and limestone; silty, phosphatic		
		Tampa Limestone	Limestone, sandy, phosphatic, fossiliferous; sand and clay in lower part in some areas		
	Oligocene	Suwannee Limestone	Limestone, sandy limestone, fossiliferous	Carbonate	Floridan aquifer
	Eocene, Paleocene	Ocala Limestone	Limestone, chalky, foraminiferal, dolomitic near bottom		
		Avon Park Limestone	Limestone and hard brown dolomite		
		Lake City, Oldsmar, and Cedar Keys Limestones	Dolomite and chalky limestone, with intergranular gypsum and anhydrite	Carbonate with intergranular evaporites	Lower confining bed of Floridan aquifer

[1] May also include all or parts of Caloosahatchee Marl and Tamiami Formation (adapted from Wilson and Gerhart, 1980).

(Reference 20)

aquifer discussed below. In the Bartow area, the Oligocene-age Suwanee Limestone immediately underlies the Tampa Limestone.

Monitoring well logs, presented in a 1986 ground-water monitoring report (Reference 22) indicate that the surficial soils underlying the LESB site are generally unconsolidated fine quartz sand and silt to depths of 5 to 8 ft (1.5 to 2.4 m). A 6 ft (2 m) layer of lower-permeability clayey, slightly consolidated sand, underlies the surficial sand. This possible aquiclude is underlain by relatively clean, medium to coarse grained quartz sand. Unconsolidated sand, possibly belonging to the Hawthorn formation, was encountered below a depth of 37 ft (11 m). These findings generally correspond to the regional stratigraphy and lithology described by Miller, et al. (Reference 20) and summarized above. The undifferentiated soils described in the site ground-water monitoring report may be part of the Bone Valley Formation.

5. Ground Water

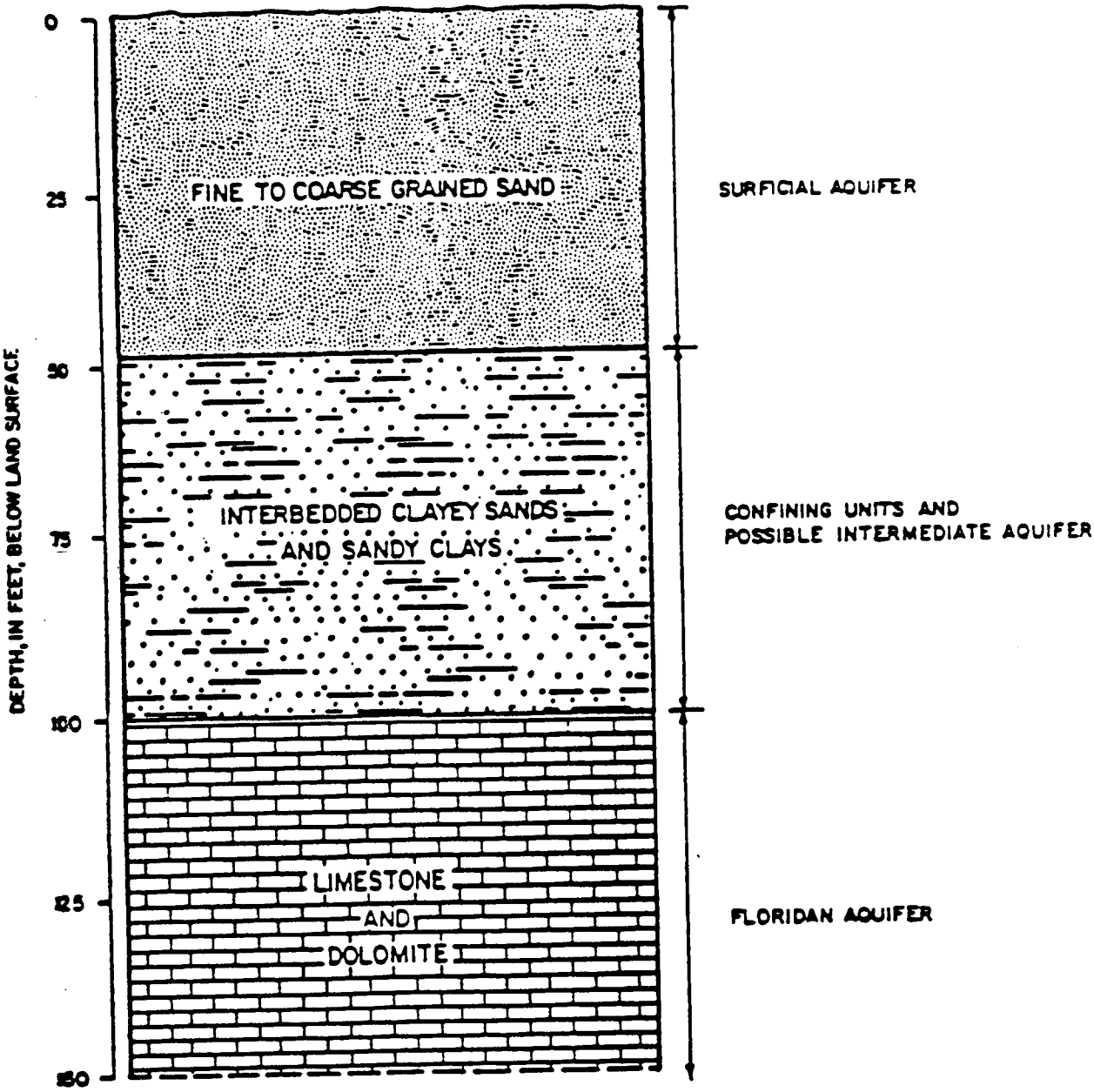
Regionally, ground water occurs in three hydrogeologic units: surficial, intermediate, and the Floridan aquifer. A generalized stratigraphic column of the aquifers present at the site is presented in Figure II-9. These aquifers are described in the following subsections.

a. Surficial Aquifer

Regionally, the surficial aquifer "...is considered to extend from the water table (generally near land surface) to the low-permeability zone that appreciably retards vertical movement of water" (Reference 20). The surficial aquifer is not a significant source of water in Polk County. The monitoring wells at LESB are most likely screened within this aquifer. Yields from the monitoring wells range from 3 to 100 gpm (Reference 22). The potentiometric surface of the surficial aquifer as it was recorded in June 1986, is shown on Figure II-10.

Figure II-9

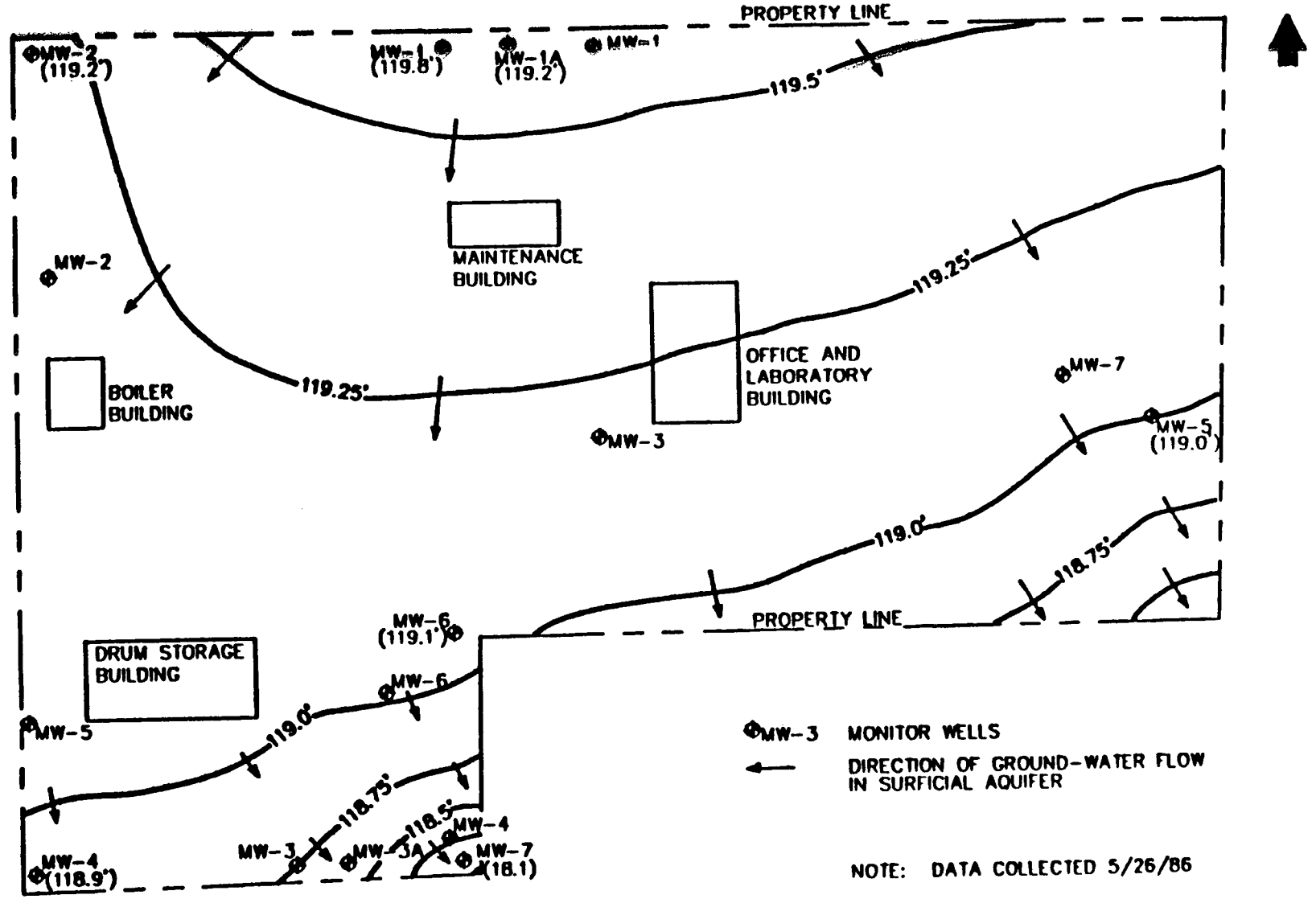
Generalized Hydrogeologic Stratigraphy in the LES Site Area



(Reference 22)

Figure II-10

Surficial Aquifer Potentiometric Surface Map



(Reference 22)

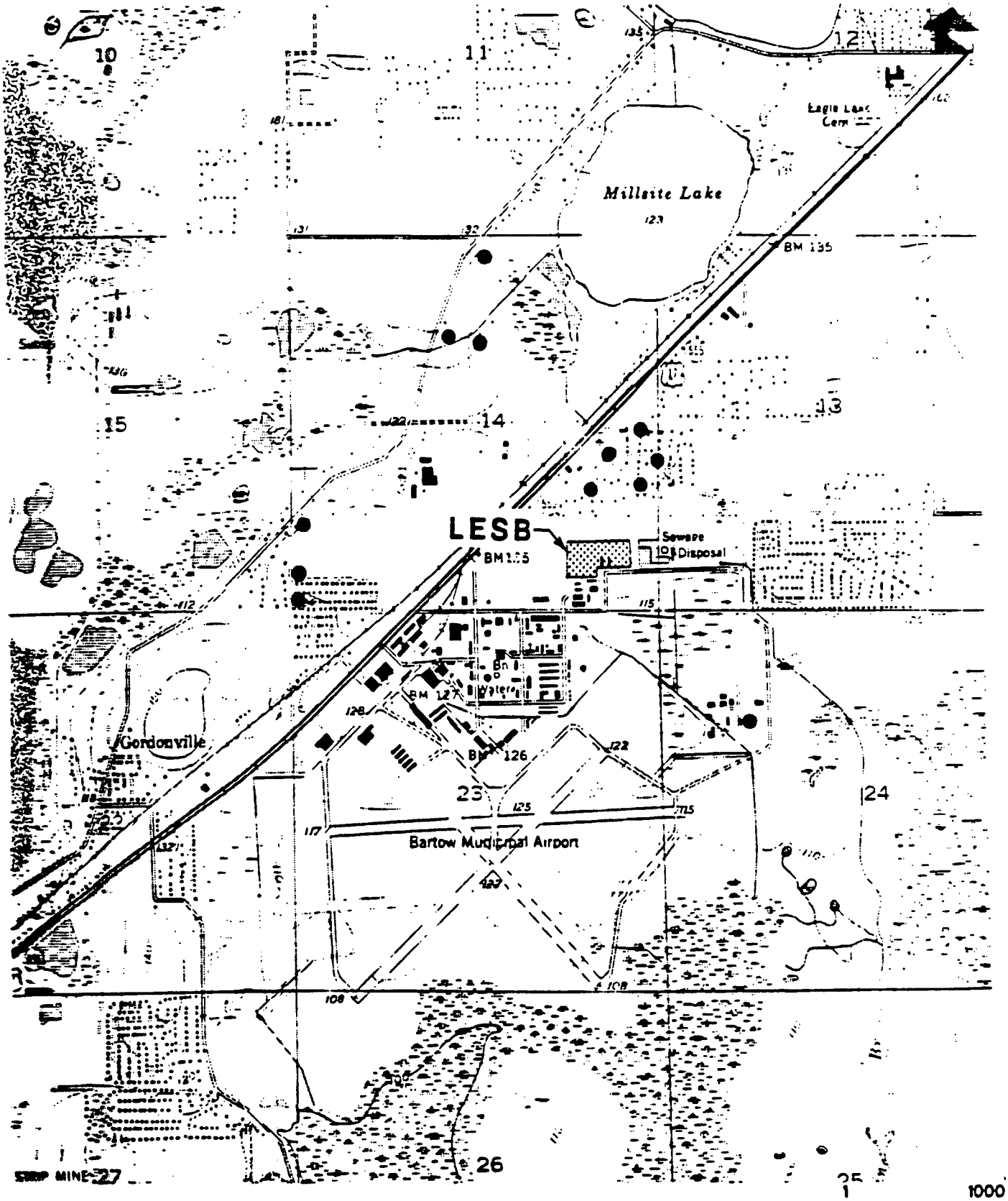
Ground-water quality data from the site monitoring wells (shown on Figure II-11) from June 1986 (before the start-up of operations), March 1988 and February 1990 were reviewed (References 23, 24, 25). The 1986 data indicate the presence of di-n-butyl phthalate in many of the samples. Because it also was detected in the laboratory blank at similar concentrations, it was determined that detection of the compound was due to laboratory contamination. Toluene was detected in one sample at just above the detection limit of 1 ug/l, but was not detected when the sample was re-run. Low concentrations of other solvents were detected in two other wells: chloroform (2 ug/l) in MW1A, and 1,1-dichloroethane (1 ug/l) in MW5. In March 1988 only monitoring wells MW5 and MW7 were analyzed. No volatile organic constituents were detected in either sample. In the 1990 data, 1,2-dichloroethane was detected in the samples from MW-7 at a concentration of 2 ug/l. It was found at the same concentration in the field blank and can be considered to be the result of sampling or laboratory contamination.

b. Intermediate Aquifer System

The intermediate aquifer system is described by both Miller et al. (Reference 20) and Hammett, et al. (Reference 17) as consisting regionally of two distinct confined aquifers, separated by a persistent aquiclude. "The uppermost, or first confined aquifer, consists of the permeable parts of the Bone Valley Formation and the upper part of the Hawthorn Formation. The lowermost, or second confined aquifer, consists of the lower part of the Hawthorn Formation and permeable parts in the upper part of the Tampa Formation that are in hydraulic contact with the Hawthorn Formation and not the Floridan aquifer" (Reference 20). The intermediate aquifers are an important source of water in west-central Florida.

Figure II-11

Drinking Water Wells in Site Vicinity



(Reference 5)

c. Floridan Aquifer

The Floridan aquifer is distinguished from the lower intermediate aquifer (where they may be hydraulically connected) by persistent carbonate lithology. As shown in Table II-4, the Suwanee Limestone marks the upper boundary of the Floridan Aquifer, and the lower confining unit is in the Lake City (limestone) Formation. In the site area it is found at a depth of approximately 100 ft (30 m) (Reference 20).

Polk County is at the center of a significant regional recharge area of the Floridan aquifer, which is the most important regional source of fresh water.

6. Receptors

The City of Bartow (population approximately 14,000) lies 4 mi (6.4 km) to the southwest of the LESB site, and the town of Eagle Lake (population approximately 2,300) lies 2 mi (3.2 km) to the northeast (Reference 26, 65). Scattered residential areas occur along U.S. Highway 17 between Bartow and Eagle Lake. There is a residential community approximately 1,000 ft (300 m) to the north of the LESB facility (Photograph CC), and another neighborhood located approximately 0.25 mi (0.4 km) to the east Bartow Municipal Airport is 0.5 mi (0.8 km) to the south. The Bartow Airport Industrial Park lies between the airport and the site. These areas are potential receptors of wind-born pollutants.

LESB's recent Part B renewal application lists 12 drinking water wells in the immediate site area (Reference 5). These wells, shown on Figure II-11, are all screened at depths greater than 100 ft (30 m). One well, located southeast of the facility, is a public drinking water supply well which is screened in the deep Floridan aquifer at a depth of approximately 500 ft (150 m) (Reference 26). The 1986 ground-water monitoring report listed 59 wells within a 1-mi (1.6-km) radius of the site. Most of these are domestic water supply (Reference 60).

There are no sensitive receptors (schools, hospitals, day care centers or nursing homes) in the immediate site vicinity. The closest hospital and schools are in Winterhaven, located approximately 3 mi (5 km) northeast of the site. There are nursing homes and day care centers in the community of Eagle Lake approximately 2 mi (3.2 km) to the northeast of the site. The closest day care center is in the community of Gordenville located approximately 1.5 mi (2.5 km) southeast of the LESB site.

III. SWMU AND AOC DESCRIPTIONS

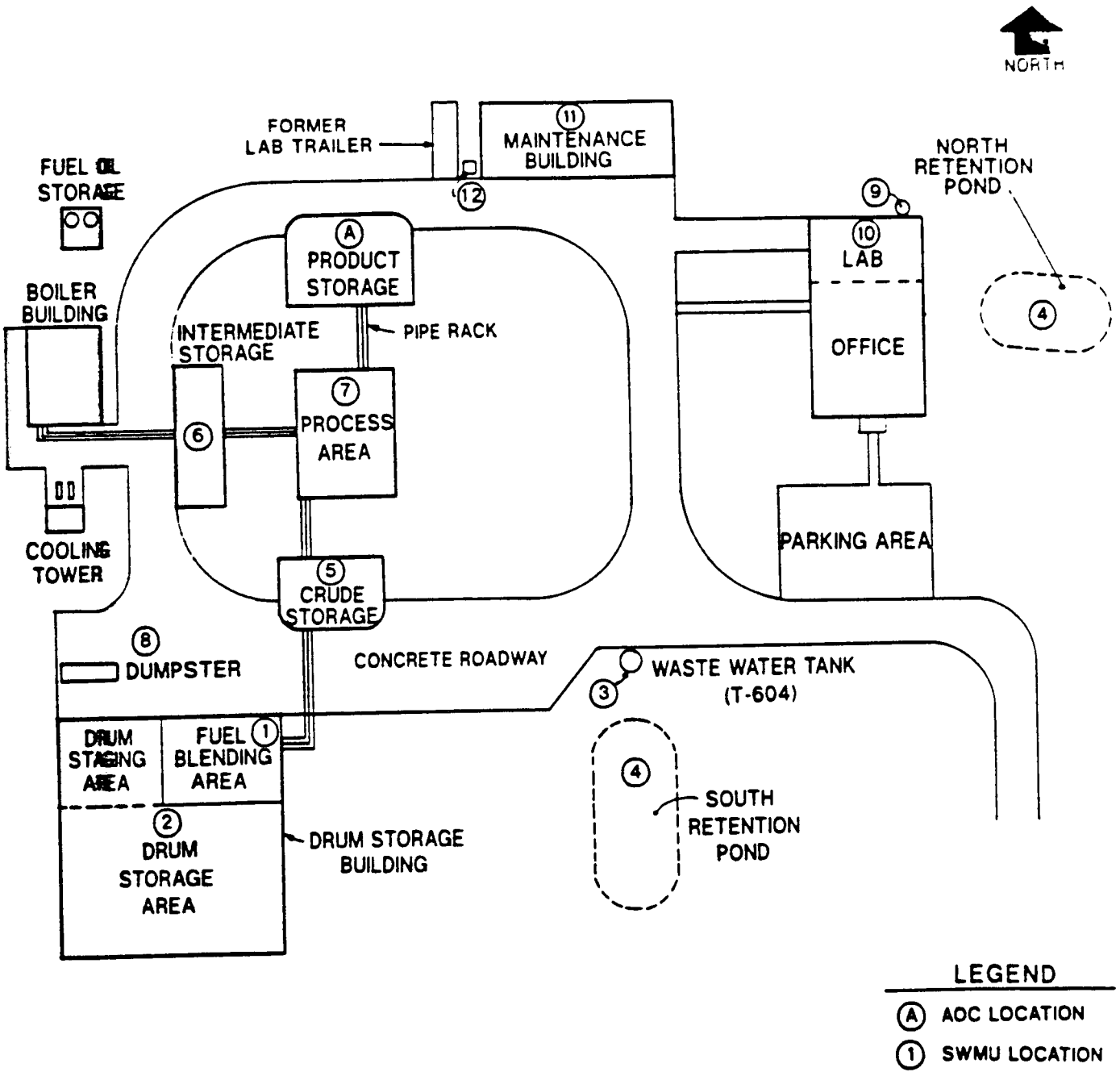
This section presents descriptions of the Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) identified during the Preliminary Review and the Visual Site Inspection of the LESB facility in Bartow, Florida. Information about the SWMUs and AOCs was gathered during both the PR and VSI. A total of twelve SWMUs and one AOC were identified. These are shown on Figure III-1, a SWMU and AOC location map. Table IV-1 lists each SWMU and AOC. The remainder of this section consists of individual data summaries of the SWMUs and AOC. Information about the SWMUs and AOC was gathered during both the PR and the VSI.

The following designations are used to designate the potential for release via the various pathways:

- L (Low) = Minimum potential for release;
- M (Moderate) = Moderate potential for release;
- H (High) = Evidence suggests that release(s) has occurred; and
- Unknown = No information was available.

Figure III-1

SWMU and AOC Location Map



(Reference 1)

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SWMU NUMBER: 1 **PHOTOGRAPH NUMBERS** 1.1 to 1.6
NAME OF UNIT: Fuel Blend Area
TYPE OF UNIT: Processing Area
PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: This unit consists of three sludge mixing tanks (T-111, T-112, T-114), and ancillary equipment used in blending hazardous wastes into a mixture that is amenable to be used as fuels in permitted facilities. The unit is located in the east end of the drum storage building. The building has a concrete slab floor and is open on the north side. The floor of the building is sloped toward a central drain. The two end (east and west) walls are bermed to contain spills. In the fuel blending area spills would flow south through holes in a metal wall to the central drain (See Figure III-2). Liquids which enter the central drain are routed to sumps at either end of the drain (see Figure III-2) and pumped to the waste-water storage tank (SWMU No. 3) via the driveway sump.

The ancillary equipment includes an inclined tray, a shredder hopper, a shredder, a magnetic separator, a solids grinder and a Pegasus Drum scraping machine. Currently, only T-112 is used on a regular basis. Tank T-114 and the shredder/grinder assembly are not permitted units although a permit is pending. Hazardous wastes suitable for fuel blending come from one of four sources: bulk shipments stored in the south tank farm (SWMU No. 5), drums stored in the drum storage building (SWMU No.2), still bottoms from the solvent recovery process stored in two bottoms tanks (R-2 and R-3) and a satellite storage drum, and laboratory-generated wastes. Bulk shipment waste and still bottoms wastes that are

stored in tanks are pumped to the fuel blending area via an overhead pipe system. Laboratory wastes are accumulated in a drum in the drum storage area. All drummed wastes are brought to the fuel blending area via fork lift. The drummed wastes are handled according to their viscosity. Non-viscous wastes are generally poured directly into the mixing tank. Viscous wastes can be loosened by using the Pegasus drum scraping machine to core the material away from the wall of the drum. The drums are placed in a special adapter to the fork lift which holds the drum while allowing it to be swung. The fork lift raises the drum to the top of the tank where a worker tilts the drum, pouring the contents into the tank. The wastes are shredded and blended with a high speed shear blade to create the proper consistency and size. Following blending, the mixture is pumped to storage tanks in the south tank farm via the overhead pipe system. In the event that it is necessary to add solvent to the fuel mixture in order to make it a pumpable consistency, a high-BTU non-chlorinated solvent can be piped to the units in the fuel blending area via the overhead pipe system. The mix tank and nearby equipment was found to be stained, primarily due to splashing during the pouring of wastes into the tank. This staining would not prevent the detection of a release. Other than the staining, the tanks and other equipment appeared to be in good condition.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: A variety of hazardous wastes are handled in this area. These include: D001, D018, D019, D028, D029, D030, D035, D039, D040, F001, F002, F003, F005, F037, F038, U002, U019, U044, U056, U057, U077, U112, U121, U159, U161, U210, U211, U220, U226, U228, U238, K086, K048, K049, K050, K051, K052. All wastes blended into fuels must have a BTU value of greater than 5000 BTU/gallon (1319/liter) in order to be valid fuel-grade wastes. The wastes also must not contain a high level of chlorine.

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Page 3 of 3

RELEASE PATHWAYS: Air (H) Surface Water (L) Soil (M)*
Ground Water (L) Subsurface Gas (M)*

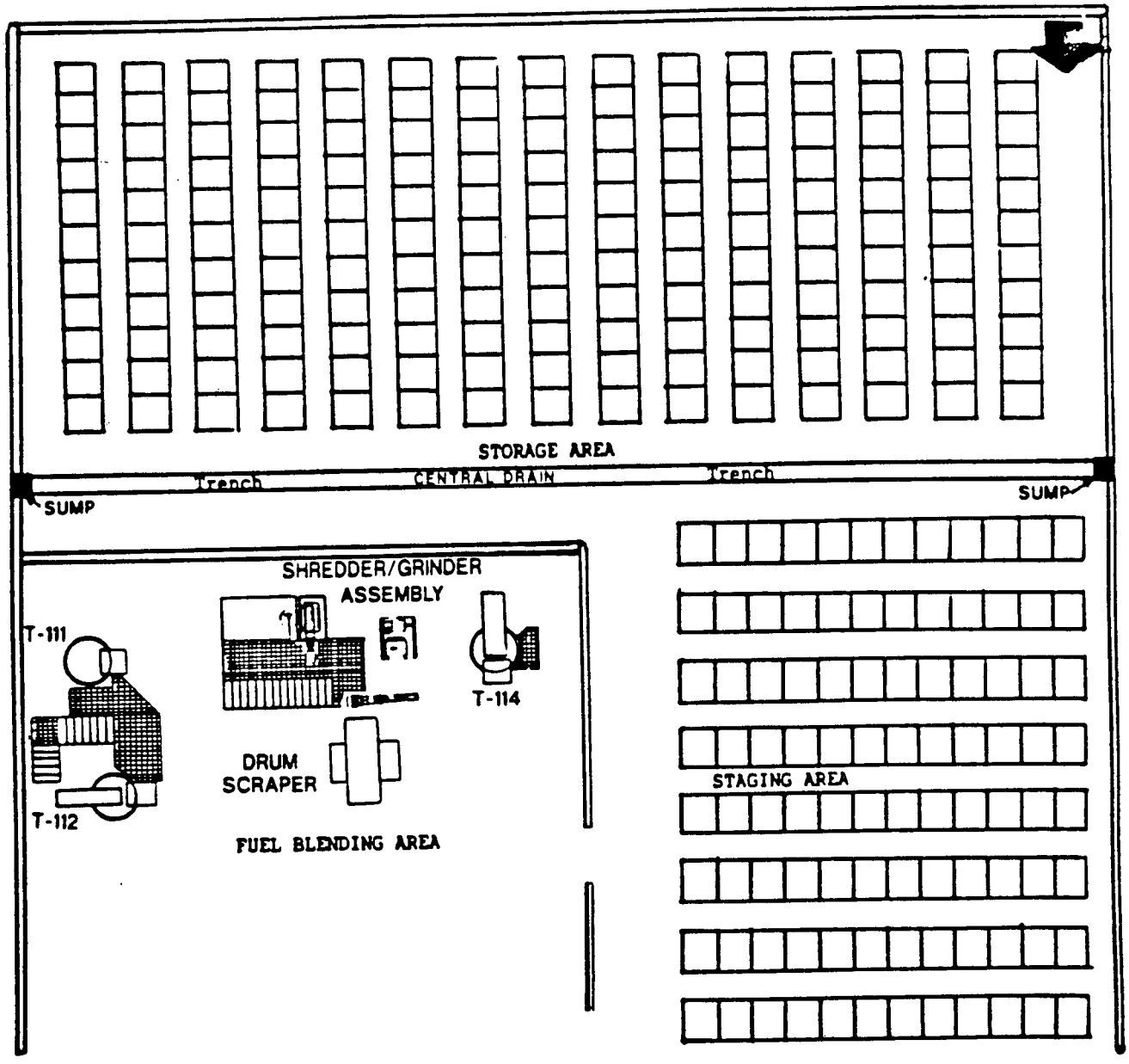
HISTORY AND/OR EVIDENCE OF RELEASES: The tanks were found to be stained by routine use of the unit. Release to air occurs during routine use. An industrial hygiene study was conducted on the site in July 1990 by GSX Services. Very little area-specific data are available from this report as it was the workers who were monitored. However, one area-specific sample was collected from the catwalk associated with the fuel mix tank (T-112). This sample contained 40 ppm of freon, 1 ppm acetone, and 1 ppm of petroleum distillates. None of the samples exceeded OSHA requirements or ACGIH recommendations (Reference 28). OSHA, in response to an FDER request, inspected the hazardous waste fuel blending area on 15 November 1990. The inspection report notes that workers handling the hazardous material wear respirators and gloves. No citations were made and the case was closed (Reference 31).

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: The driveway in front of the hazardous waste fuel blending area appears to have been cracked and repaired. LESB inspects the driveway for cracks on a daily basis. Repairs are performed as necessary (Reference 30).

* It was not possible to determine the integrity of the drum storage building sump, located at the east end of the building. In the absence of this data, a "moderate" potential for release has been assigned to the soil and subsurface gas release pathways. There have not been reported or suspected releases via these pathways.

Drum Storage Building



(Reference 5)

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SWMU NUMBER: 2 **PHOTOGRAPH NUMBERS 2.1 and 2.2**
NAME OF UNIT: Drum Staging and Storage Area
TYPE OF UNIT: Storage Building for Drums of Hazardous Waste
PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: The drum staging and storage area is in the drum storage building shown in Figure III-2. The building is approximately 125 ft (38 m) long by 120 feet (37 m) wide, with a steel supported metal roof, and a 6-in (152-mm) thick reinforced concrete slab floor. The building is open on the north side. Drums are stored four to a pallet, three pallets high in the southern half of the building. The northeast quadrant of the building is used for the hazardous waste fuel blending (SWMU No. 1). The northwest quadrant of the building is used for drum staging and sampling. Because the building is open on one side, precipitation occasionally enters the building. This precipitation, as well as any spills, is directed to a central drain and sump system by the sloped floor. The end (east and west) walls of the building are bermed to contain spills. Liquid that collects in the two end sumps is pumped to the waste-water collection tank (T-604) (SWMU No. 3) via under ground piping to the driveway sump (Photograph DD).

Drums, which are received by truck shipments, are unloaded on a ramp located adjacent to the staging area. Containers in poor condition or containers which are leaking are transferred to overpack drums. Non-sparking tools are used to open the drums for sampling and characterization. Samples are collected for laboratory analysis, and the drums are characterized and labeled according to the amount of solids in the drums. Workers who sample the drums wear respirators. The total permitted storage capacity of the building is 81,800 gal (310,000 liters) in 1,476 55-gal (208 l) drums. Flammable liquids are arranged with 5 ft

SWMU DATA SHEET
Page 2 of 2

(1.5 m) spacing between pallets and 12 ft (3.7 m) aisles. The drums are stored under a sprinkler system. The drum staging and storage area appeared to be in good condition during the VSI.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: The wastes managed in the Drum Staging and Storage Area include: D001, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043, F001, F002, F003, F005, F037, F038, U002, U019, U044, U056, U057, U077, U112, U121, U159, U161, U210, U211, U220, U226, U228, U238, K083, K086, K048, K049, K050, K051, K052.

RELEASE PATHWAYS: Air (M) Surface Water (L) Soil (M)*
Ground Water (L) Subsurface Gas (M)*

HISTORY AND/OR EVIDENCE OF RELEASES: Some release of volatile constituents from the drums during sampling would be expected. Workers performing this task wear air-purifying respirators.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: * During the VSI, it was not possible to evaluate the integrity of the central drain and sump system. In the absence of data concerning the integrity of the drain, sump and pipe system, a "moderate" potential for release has been assigned to the soil and subsurface gas pathway. There have not been reported or suspected releases via these pathways.

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SWMU NUMBER: 3 **PHOTOGRAPH NUMBERS** 3.1, 3.2 and 3.3

NAME OF UNIT: Waste-Water Collection Tank
TYPE OF UNIT: Collection tank for storm runoff and sump material.
PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: The waste-water collection tank (T-604) is a 6,000-gallon (22,740 liter) carbon-steel tank mounted on a concrete slab. T-604 is located off the south edge of the paved area. Two sumps are located immediately adjacent and east and west of the tank. The tank receives water pumped from sumps in the drum staging and storage building (SWMU No.2), the process area (SWMU No. 7), the intermediate storage area (SWMU No. 6), the crude storage area (SWMU No.5), and the product storage area. Also, runoff from the paved portion of the site is directed to a sump, located west of T-604, and pumped in to T-604. During heavy rain events, only the "first flush" of runoff is collected. After about 15 minutes a shut off valve is manually turned and the runoff is directed to the south retention pond. The drum storage building and two process area sumps are directly connected to the driveway sump (Photograph FF) via underground piping. The driveway sump connects to the T-604 sump through underground piping. All other sumps (those in the tank farms) are emptied by using a diaphragm pump and flexible hose to pump the liquid to the two process area sumps. When the waste-water collection tank is full, the water is analyzed for total organic carbon (TOC) and a gas chromatograph (GC) scan is performed to determine if the water is suitable for disposal in the Bartow municipal storm sewer system. Upon confirmation of suitability, the waste-water is discharged to that system. Only one tank of water has ever been found to be

SWMU DATA SHEET
Page 2 of 2

unsuitable for discharge. This tank was not discharged due to high BOD and, instead, was shipped off-site for disposal. During the VSI this tank appeared to be in good condition. The sumps, which collect water from the various parts of the storage and processing areas of the site, also appeared to be in good condition.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: Because the function of this tank is to collect waste-water and runoff from all active areas of the site, it could potentially be used to manage any of the wastes handled by the facility.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

HISTORY AND/OR EVIDENCE OF RELEASES: There are no known or suspected releases from this unit.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: None

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Page 1 of 2

SWMU NUMBER: 4 **PHOTOGRAPH NUMBERS** 4.1 and 4.2
NAME OF UNIT: Storm-water Retention Ponds
TYPE OF UNIT: Collection of storm water runoff
PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: There are two storm-water retention ponds referred to as the south pond and the north pond. The south pond receives overflow storm-water runoff from the driveway, storage areas, and process areas during times of heavy rain. The "first flush" of runoff is directed through a series of sumps to the waste-water collection tank (SWMU No.3). If the volume of runoff exceeds the tank capacity, a manually-operated valve is opened to allow the runoff to flow to the retention pond. The north retention pond receives storm-water runoff from the parking area and the office/laboratory building area and roof. During the VSI water was not observed in either pond and representatives of LESB informed the team that infiltration in the ponds is rapid. This would be expected given the sandy nature of the site soils.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: Because the function the south pond is to collect runoff from all active areas of the site, constituents washed from the parking areas during heavy rainfall events could be potentially managed in this pond. The north pond could receive oils from the parking area.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

SWMU DATA SHEET
Page 2 of 2

HISTORY AND/OR EVIDENCE OF RELEASES: There are no known or suspected releases from this unit.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: The "first flush" of storm-water is collected in T-604, the waste-water collection tank (SWMU No. 3). Each tank of water is tested for suitability for discharge to the municipal storm water system prior to discharge. Analyses include BOD, total organic carbon, and a GC scan for organic constituents. LESB representatives have stated that only one tank has ever been found to be unsuitable (due to high BOD). The tank contains the "first flush" of storm water and, therefore, should contain the most contaminated storm water. Because the waste-water collection tank water has never been found to contain excessive levels of organic constituents, the storm water that is released to the pond would not be expected to represent a significant potential for release.

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Page 1 of 2

SWMU NUMBER: 5 **PHOTOGRAPH NUMBERS 5.1 to 5.3**
NAME OF UNIT: Crude Storage Area (South Tank Farm)
TYPE OF UNIT: Storage Tank Farm
PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: The crude storage area consists of ten 6,000-gallon (22,740-liter), carbon steel, cone-bottom storage tanks. The tanks are mounted on a 55-ft (5.5 -m) by 23-ft (7-m), 12-in (0.3 m) thick reinforced concrete slab surrounded by a 16-in (0.4-m) high reinforced concrete block wall. These tanks are used to store in-coming bulk shipments of fuel-grade and solvent-recoverable waste, and to hold blended hazardous waste fuels prior to shipment off site. In-coming wastes are pumped from the tank trucks, which are parked in the hazardous waste fuel blending area (SWMU No. 1), into these tanks via an overhead pipe system. Solvent wastes are piped to the process area (SWMU No.7) via an overhead pipe system. Secondary containment in this tank farm can contain 11,904 gal (45,116 l). The expansion joint seams in the concrete slab are underlain by stainless steel troughs which drain to a collection bucket. No liquid has been seen in this bucket. Sumps in this containment area are emptied by pumping via flexible hose to the process area (SWMU No. 7) sumps for pumping to the waste-water collection tank (SWMU No. 3). During the VSI, all tanks within this unit appeared to be in good condition.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: The wastes that are stored in these tanks include those permitted wastes listed in Table II-1.

RELEASE PATHWAYS: Air (H) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

SWMU DATA SHEET
Page 2 of 2

HISTORY AND/OR EVIDENCE OF RELEASES: Releases to the atmosphere were cited by FDER during a March 1990 inspection. The release was due to improper manhole covers. The proper covers have been installed. Releases from these tanks are permitted under A053-128774.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: The facility should provide USEPA Region IV with all required organic emission data in order to evaluate compliance with 40 CFR, Subpart AA-Air Emission Standards for Process Vents and 40 CFR 264, Subpart BB-Air Emission Standards for Equipment Leaks.

SWMU DATA SHEET
Page 1 of 2

SWMU NUMBER: 6 **PHOTOGRAPH NUMBERS** 6.1 and 6.2
NAME OF UNIT: Intermediate Storage Area (West Tank Farm)
TYPE OF UNIT: Storage Tank Farm
PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: The intermediate storage area (West tank farm) consists of ten 6,000-gal (22,740-l) carbon steel tanks and two 7,000-gal (26,530-l) carbon steel still bottoms tanks. All tanks are mounted on reinforced concrete slabs surrounded by a reinforced concrete block wall. The larger tanks (200-Series) are used to store product that has been processed through the vacuum still or thin film evaporator. If further processing is required, the solvent is pumped to the fractionation column for final purification. If no further processing is required the product can be pumped to the product storage tanks.

The secondary containment area concrete slab expansion joint seams are underlain by stainless steel troughs which drain to a collection bucket. No liquid has been seen in this bucket. Sumps in this area are emptied by pumping via flexible hose to the two process area sumps. Those sumps are connected via underground pipes to the waste-water collection tank (SWMU No. 3) sumps. The volume of the secondary contained area is 32,300 gal (122,417 l).

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: The solvents that are stored in these tanks can include: perchloroethylene, trichloroethylene, freon, methylene chloride, and 1,1,1-trichloroethane. Tanks of "mixed solvents" were also noted during the VSI.

RELEASE PATHWAYS: Air (H) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

SWMU DATA SHEET
Page 2 of 2

HISTORY AND/OR EVIDENCE OF RELEASES: Known releases from these tanks include releases through the atmosphere permitted under AO53-128774.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: None

SWMU DATA SHEET

Page 1 of 3

SWMU NUMBER: 7 **PHOTOGRAPH NUMBERS** 7.1 to 7.7

NAME OF UNIT: Process Area

TYPE OF UNIT: Thin Film Evaporator, Vacuum Still, Fractionation Column, Reboiler, Freon Wash Tank

PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: The process area is located central to the various storage areas and tank farms on the site. The major processing units, the thin film evaporator (TFE), vacuum still, fractionation column, freon wash tank, and reboiler, are all mounted on reinforced concrete pads surrounded by reinforced concrete block walls. The TFE unit is 30 in. (0.76 m) in diameter and 18 ft (5.5 m) high. It is designed to purify solvents with high concentrations of solids through semi-continuous rotary evaporation. The vacuum still uses steam heated batch distillation to purify solvents with low levels of solids, and solvents requiring simple separation. It is 6 ft (1.8 m) in diameter and 8 ft (2.4 m) high. The freon wash tank is a liquid/liquid separator which utilizes water to wash freon. The fractionation column is used to process solvents that require purification beyond that provided by the vacuum still, the TFE, and the freon wash tank. The column is constructed of stainless steel, is 42 in. (1.1 m) in diameter, and is 62 ft (18.9 m) high. It is in line with a reboiler unit. Ancillary equipment in the process area includes pumps for moving the various solvents to and from storage tanks and processing units, an overhead pipe system, condensate receivers, and knockout pots. Two 55-gal (208-l) satellite accumulation drums are located on pallets in the process area. These drums receive tank bottoms that are too viscous to pump to the still bottoms tanks, R-2 and R-3 (SWMU No. 6) and drainage from lines

that must be opened for maintenance. The expansion joints (seams) in the concrete slab in the secondary containment area are underlain by stainless steel troughs. These drain to a collection bucket. No liquid has been seen in this bucket. The two main distillation area sumps, which are connected via underground pipes to waste-water collection tank (SWMU No. 7), have a volume of 500 gal (1895 l) each. During the VSI, the process area appeared to be well maintained and in good condition. No evidence of releases were noted.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: The solvents that are processed through these units can include: perchlorethylene, trichloroethylene, freon, methylene chloride, as well as other spent solvents that are listed as D001, F001, F002, F003, F005, U112, U044, U019, U228, U238, U226, U077, D018, D028, D029, D030, D035, D039, D040, K086, U002, U057, U121, U159, U161, U210, U211, U220.

RELEASE PATHWAYS: Air (H) Surface Water (L) Soil (M)*
Ground Water (L) Subsurface Gas (M)*

HISTORY AND/OR EVIDENCE OF RELEASES: Known releases from the process area include releases to the atmosphere from the condensate receiver tanks (R-102, R-201, R-202, and R-302) permitted under AO53-131682. Form AA-1, submitted to USEPA on 14 December 1990 (Reference 71) indicates that the vacuum still, TFE and Fractionation column emitted a total of 1.99 tons/year for 1989 and similar volumes were expected for 1990. The total organic content of the emission was greater than 10 percent.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

SWMU DATA SHEET
Page 3 of 3

COMMENTS: * It was not possible to evaluate the integrity of the sump and pipe system during the VSI. In the absence of these data, a "moderate" potential for release to soil and subsurface gas has been assigned to those pathways.

SWMU DATA SHEET
Page 1 of 1

SWMU NUMBER: 8 PHOTOGRAPH NUMBER 8.1
NAME OF UNIT: Amnesty Days Dumpster
TYPE OF UNIT: Storage of discarded paint cans
PERIOD OF OPERATION: 1990 to present

PHYSICAL DESCRIPTION AND CONDITION: The amnesty days dumpster is a standard roll-off dumpster used by the LESB facility to store crushed paint cans that have accumulated as a result of the FDER Amnesty Days Program. During amnesty days, household hazardous wastes, including paint, are collected by the state and sent to permitted facilities for disposal. Paint cans are brought to LESB and crushed using a can crusher (Photograph BB) located in the fuel blending area (SWMU No. 1). The cans are coated with dry Portland cement to stabilize any remaining liquids prior to disposal. The empty crushed cans, are accumulated in a covered dumpster located outside of the drum staging area (SWMU No. 2). When full, the contents in the dumpster are taken to a permitted hazardous waste landfill for disposal. During the VSI, this unit appeared to be in good condition.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: Residual waste paint.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

HISTORY AND/OR EVIDENCE OF RELEASES: There are no known or suspected releases from this unit.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: None

SWMU DATA SHEET
Page 1 of 2

SWMU NUMBER: 9 **PHOTOGRAPH NUMBER** 9.1 and 9.2
NAME OF UNIT: Fume Hood Drain Collection Tank
TYPE OF UNIT: Accumulation tank.
PERIOD OF OPERATION: Approximately 1986 through 1991

PHYSICAL DESCRIPTION AND CONDITION: The fume hood drain collection tank was installed on the north side of the laboratory/office building, by Wadsworth/Alert Laboratory. The installation date is not known, but Wadsworth /Alert leased that space from approximately 1985 to 1991. The plastic tank has a capacity of approximately 250 gal (948 l) and has a covered port at the top. It has a vent pipe which extends up to a height just above the roof of the laboratory building. A discharge drain pipe was observed in the bottom of the tank. The drain is connected to the city sanitary sewer system (Reference 7). Approximately 3 in. (76 mm) of dark liquid were in the tank at the time of the VSI. At the time that Wadsworth/Alert moved out of the laboratory they left the tank valve open. During the VSI, it was noted that the integrity of the tank appeared to be good, but the bottom of the tank could not be evaluated due to the presence of residue material in the tank. There is no secondary containment for this unit.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: Unknown

RELEASE PATHWAYS: Air (*) Surface Water (L) Soil (*)
Ground Water (*) Subsurface Gas (L)

HISTORY AND/OR EVIDENCE OF RELEASES: There are no known releases from this unit.

SWMU DATA SHEET
Page 2 of 2

RECOMMENDATIONS: No Further Action ( )
RFA Confirmatory Sampling (x)
RFI Necessary ( )

COMMENTS: *LESB representatives have stated that they were unaware of the tank, and that they do not use the sink and drain in the fume hood. The proposed Confirmatory Sampling is to evaluate the contents in the bottom of the tank. Because LESB was unaware that this tank was connected to the sink in the fume hood, it is unknown what releases may have occurred in the past. Therefore, sampling must be conducted to determine if further investigation is warranted.

SWMU DATA SHEET
Page 1 of 1

SWMU NUMBER: 10 **PHOTOGRAPH NUMBER 10.1**
NAME OF UNIT: Laboratory Satellite Accumulation Containers
TYPE OF UNIT: Satellite Accumulation
PERIOD OF OPERATION: 1991 to present

PHYSICAL DESCRIPTION AND CONDITION: Two 5-gal (19-l) plastic accumulation jugs are located in two laboratory fume hoods. Rinsate from the laboratory glassware cleaning process is accumulated in these tanks. The rinsate consists predominantly of acetone. Approximately once per month the rinsate is removed to an accumulation drum in the drum storage/staging area (SWMU No. 2). During the VSI, the integrity of the drums appeared to be good, although one of them was open.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: Acetone and other laboratory reagents.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

HISTORY AND/OR EVIDENCE OF RELEASES: The only suspected releases from this unit would be releases to air due to the cap being left off of one jug. Constituents released in this way would be vented to the atmosphere via the fume hood vents.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: None

SWMU DATA SHEET
Page 1 of 1

SWMU NUMBER: 11 **PHOTOGRAPH NUMBERS 11.1 and 11.2**
NAME OF UNIT: Boot Cover Disposal Drum
TYPE OF UNIT: Waste collection drum
PERIOD OF OPERATION: 1990 to present

PHYSICAL DESCRIPTION AND CONDITION: LESB requires that workers entering the break room located in the maintenance building wear disposable boot covers. After use, these covers are collected in an overpack drum located in the maintenance garage. When the drum is full it is disposed as hazardous waste at an off-site permitted facility.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: Potentially any wastes managed at the facility could be on the boot covers.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

HISTORY AND/OR EVIDENCE OF RELEASES: There are no known or suspected releases from this unit.

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: None

SWMU DATA SHEET
Page 1 of 2

SWMU NUMBER: 12 **PHOTOGRAPH NUMBER** 11.2
NAME OF UNIT: Former Laboratory Trailer Drain Containment Pad
TYPE OF UNIT: Secondary Containment
PERIOD OF OPERATION: 1987 to 1990

PHYSICAL DESCRIPTION AND CONDITION: The containment pad is located between the former Tricil laboratory trailer and the maintenance building, on the west side of the building. It consists of a 8 ft (2.4 m) by 16 ft (4.8 m) 4-in. (102-mm) thick reinforced concrete slab with reinforced concrete block (concrete filled) walls. The pad used to hold two 250-gal (948 l) polyethylene tanks. These tanks held wastes from a drain in the laboratory trailer. The two tanks were periodically emptied by using the waste in the hazardous waste fuel blending processes. The tanks were removed in 1990 when the laboratory was moved to the present location (in the back of the office building). The trailer and containment pad are currently not in use. The containment pad was in good condition at the time of the VSI.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: predominantly laboratory solvent (e.g., acetone) and other laboratory reagents.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

HISTORY AND/OR EVIDENCE OF RELEASES: There have been no known releases from this unit and no evidence of release was noted during the VSI.

SWMU DATA SHEET

Page 2 of 2

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: None

AOC DATA SHEET
Page 1 of 2

AOC NUMBER: A PHOTOGRAPH NUMBER A.1
NAME OF UNIT: Freon Wash Water Storage Tank
TYPE OF UNIT: Storage tank
PERIOD OF OPERATION: 1987 to present

PHYSICAL DESCRIPTION AND CONDITION: LESB stores the wash water used in the freon wash process for re-use. The storage tank used for this is one of the 8,800-gal (33,352-l) capacity, stainless steel final product tanks. These tanks are mounted on reinforced concrete pads in a bermed area. Expansion joints (seams) in the concrete slab of the secondary containment area are underlain by stainless steel troughs which drain to a collection bucket. No liquid has been seen in this bucket. Sumps in this containment area are pumped via flexible hose to the two main sumps in the process area. Liquid is pumped from those sumps to the waste-water collection tank (SWMU No. 3) sumps via underground pipes. The volume of the secondary containment area is 41,500 gal (157,285 l).

The wash water is pumped into the storage tank from the freon wash tank or the fractionation column (also used to purify the water) via the overhead pipe system. At the time of the VSI, the tank used to store freon wash water was T-301. This tank, and all the other tanks appeared to be in good condition.

WASTES AND HAZARDOUS CONSTITUENTS MANAGED: Freon wash water.

RELEASE PATHWAYS: Air (L) Surface Water (L) Soil (L)
Ground Water (L) Subsurface Gas (L)

HISTORY AND/OR EVIDENCE OF RELEASES: There are no known or suspected releases from this unit.

AOC DATA SHEET

Page 2 of 2

RECOMMENDATIONS: No Further Action (x)
RFA Confirmatory Sampling ( )
RFI Necessary ( )

COMMENTS: None

IV. SUMMARY

Chapter IV consists of four tables identifying the SWMUs and AOCs identified during the VSI conducted on 20 May 1990. Table IV-1 lists all the SWMUs identified during the VSI. Table IV-2 is a list of SWMUs requiring no further action. Table IV-3 is a list of the RCRA-regulated units. Table IV-4 is a list of SWMUs requiring confirmatory sampling. The sampling strategy is presented in Chapter V.

TABLE IV-1

List of SWMUs and AOCs

SWMU Number	SWMU Name
1	Hazardous Waste Fuel Blending Area
2	Drum Staging/Storage Area
3	Waste-Water Collection Tank
4	Storm-Water Retention Ponds
5	Crude Storage Area (South Tank Farm)
6	Intermediate Storage Area
7	Process Area
8	Amnesty Days Dumpster
9	Fume Hood Drain Collection Tank
10	Laboratory Satellite Accumulation Containers
11	Boot Cover Disposal Drums
12	Former Laboratory Trailer Drain Containment Pad

AOC Number	AOC Name
A	Freon Wash Water Storage Tank

TABLE IV-2

List of SWMUs and AOCs Requiring no Further Action

SWMU Number	SWMU Name
1	Hazardous Waste Fuel Blending Area
2	Drum Staging/Storage Area
3	Waste-Water Collection Tank
4	Storm-Water Retention Ponds
5	Crude Storage Area (South Tank Farm)
6	Intermediate Storage Area
7	Process Area
8	Amnesty Days Dumpster
10	Laboratory Satellite Accumulation Containers
11	Boot Cover Disposal Drums
12	Former Laboratory Trailer Drain Containment Pad

AOC Number	AOC Name
A	Freon Wash Water Storage Tank

TABLE IV-3

List of SWMUs that are RCRA Regulated Units

SWMU Number	SWMU Name
2	Drum Storage Building
5	Crude Storage Area

TABLE IV-4

List of SWMUs Requiring Confirmatory Sampling

SWMU NUMBER	SWMU Name
9	Fume Hood Drain Collection Tank

TABLE V-I

Suggested Sampling Strategy

SWMU Number	SWMU Name	Suggested Sampling	Evidence of Release (yes/no)
9	Fume Hood Drain Collection Tank	Objective of the sampling is to determine if the residue in the bottom of the tank contain hazardous constituents. The facility should collect 1 sample for 40 CFR Part 261 Appendix VIII constituents. Following removal of the residue, the integrity of the tank and associated piping should be tested. If the tank or piping fails the test, further investigation will be necessary.	No

V. SUGGESTED SAMPLING STRATEGY

Table 1 presents the suggested sampling strategy for the confirmatory sampling required at SWMU No. 9, the fume hood drain collection tank. Following removal of the residual liquid, the integrity should be tested. If the unit fails the integrity test, further investigation will be necessary.

VI. REFERENCES

1. VSI Field Notes and Handouts, 20 May 1991. See Appendix A.

2. Tricil (LESB) correspondence to GeoSyntec Consultants, Re: Site History. 13 May 1991.

3. Versar Inc., 1988, RCRA Compliance Evaluation Inspections Land Ban Restrictions, Tricil Recovery Systems Inc., 4 p.

4. Tricil letter to Armando Gonzalez, FDER Southwest District, Re: 21 August 1987 Notification of Hazardous Waste Activity listing Tricil as a Hazardous Waste Fuel Marketer. 23 November 1987.

5. Laidlaw Environmental Services of Bartow, Inc., RCRA Part B Permit Application. September 1990.

6. Florida Department of Environmental Regulation Permit Certification, Permit No. H053-86011A. 15 May 1989.

7. Taylor, Steven J., LESB, personal communication. 5 June 1991.

8. Manak, Paul W., LESB, personal communication. 6 June 1991.

9. FDER Permit Certification for Permit Number H053-86011 undated.

10. Memo from Michael J. Harnett, USEPA Region IV Waste Engineering Section to Alan Farmer, USEPA Region IV Waste Compliance Section. 15 September 1988.

11. USEPA Region IV letter to Stanley D. Mark, Tricil, Re: Scheduling a RFA VSI. 13 January 1987.

12. FDER Interoffice Memorandum to Files from Victor San Augustine, P.E. 15 October 1990.

13. Tricil letter to W.C. Thomas, FDER, Re: Warning Notice #WN89-0037AP53SWD. 5 June 1989.

14. FDER Memorandum to File from Viet Ta, FDER. 24 May 1989.

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18. USGS, 1949, Bartow Quadrangle, Florida-Polk Co. 7.5 Minute Series Topographic Map. Revised 1972.

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22. Karnofsky, B., 1986, Ground Water Monitoring Project Tricil Recovery Services, Inc. International Solvents Recovery Facility, Bartow, FL.

23. Wadsworth/Alert Laboratories, 2 June 1986, Analytical Summary, Ground Water Monitoring Project, Tricil Resources, Inc., International Solvent Recovery Facility, Bartow, FL.

24. Wadsworth/Alert Laboratories, 23 May 1988, Analytical Summary for Ground Water Monitoring Wells. 21 March 1988.

25. Wadsworth/Alert Laboratories, Inc., 21 March 1990, Analytical Report, Monitoring Wells. 19 February 1990.

26. Doug Allen, City of Bartow Waste Water Department, Personal Communication. 11 June 1986.

27. Jack Colson, Polk County Utilities Department, Personal Communications. 11 June 1986.

28. GSX Services Inc., Tricil Bartow, Florida Facility July 23-26 1990. I.H. Study. 11 September 1990.

29. FDER Interoffice Memorandum from Victor San Agustin to Files, Re: Tricils Response to WN #90-0023HW53SWD. 15 October 1990.

30. Taylor, Steven, J. Personal Communication, 19 June 1991.

31. U.S. Department of Labor, Occupational Safety and Health Administration, Inspection Report Form. 15 November 1990.

APPENDIX A

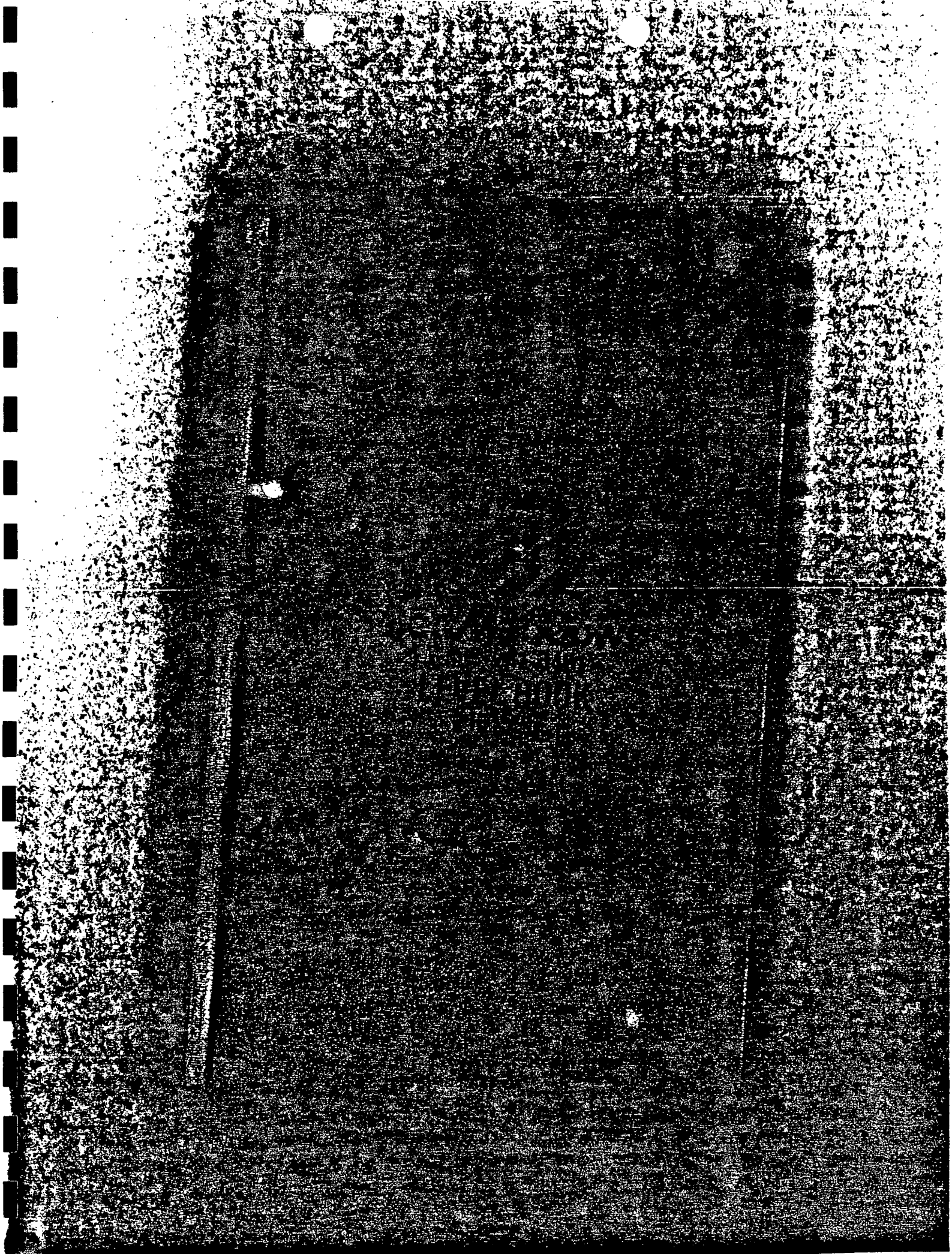
VSI LOG BOOK

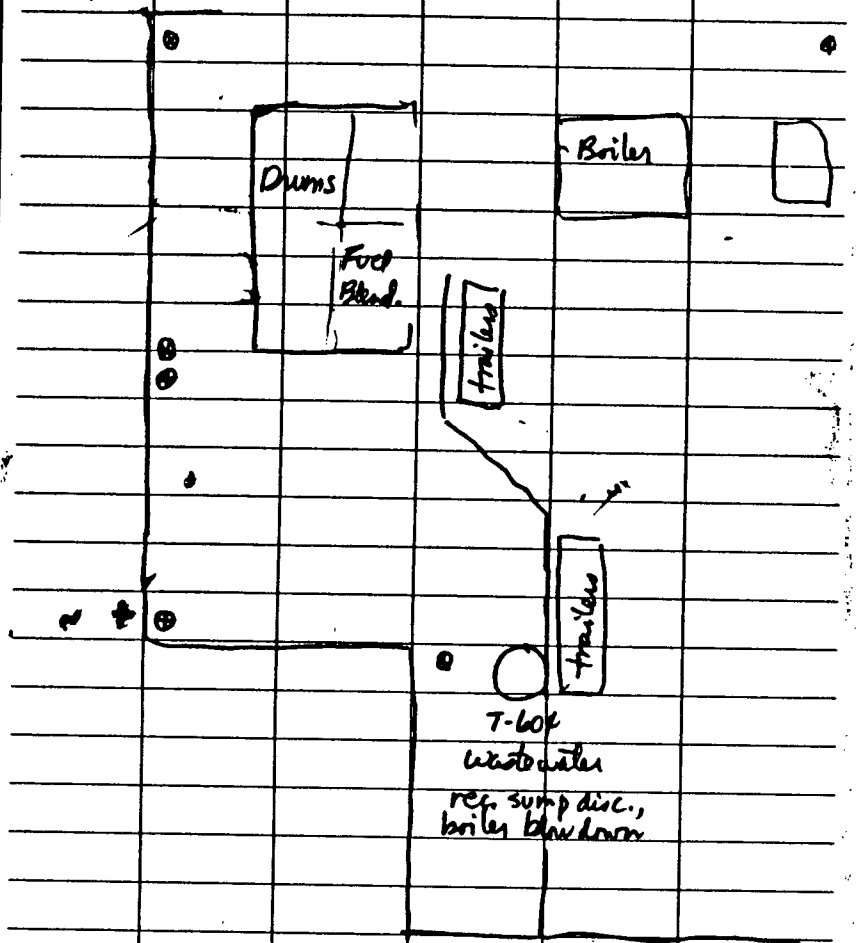
IRICK / LAIDLAW

RFA - VSI

20 MAY 1991

NAME	REPRESENTING	PHONE #
LYNNE FRANCO	GEOSYNTEC	404-448-5400
Susan Zazzali	USEPA	404 [redacted] 347-34
Carin DeBenedictis	US EPA	404-347-3433
Kimberly Charick	USEPA	"
Steve Shugart	GeoSyntec	(404) 448-5400
Paul Manak	Laidlaw Environmental Services	(813) 533-6111
Steve Taylor	Laidlaw Envir. Ser.	813-533-6111
Victor San Agustin	FDER	(813) 623-5561, ext. 3





20 May 1991

- Arrived on-site at 11:00 am. Met Steve Taylor and Paul Manak. USEPA and DER arrived on-site at 11:15.

- Preliminary meeting
  Attendees: Susan Zazzali, Kim Chance, Carin Bellidetis, Victor San Agustin, Paul Manak, Steve Taylor, Lynne France, Steve Shugart

- Site desc. - see notes on site map

- Facility tour

- Meeting (2:15 pm)
  - Adjacent property - vacant
  - Ground-water monitoring
  - Populations

Product Storage Area

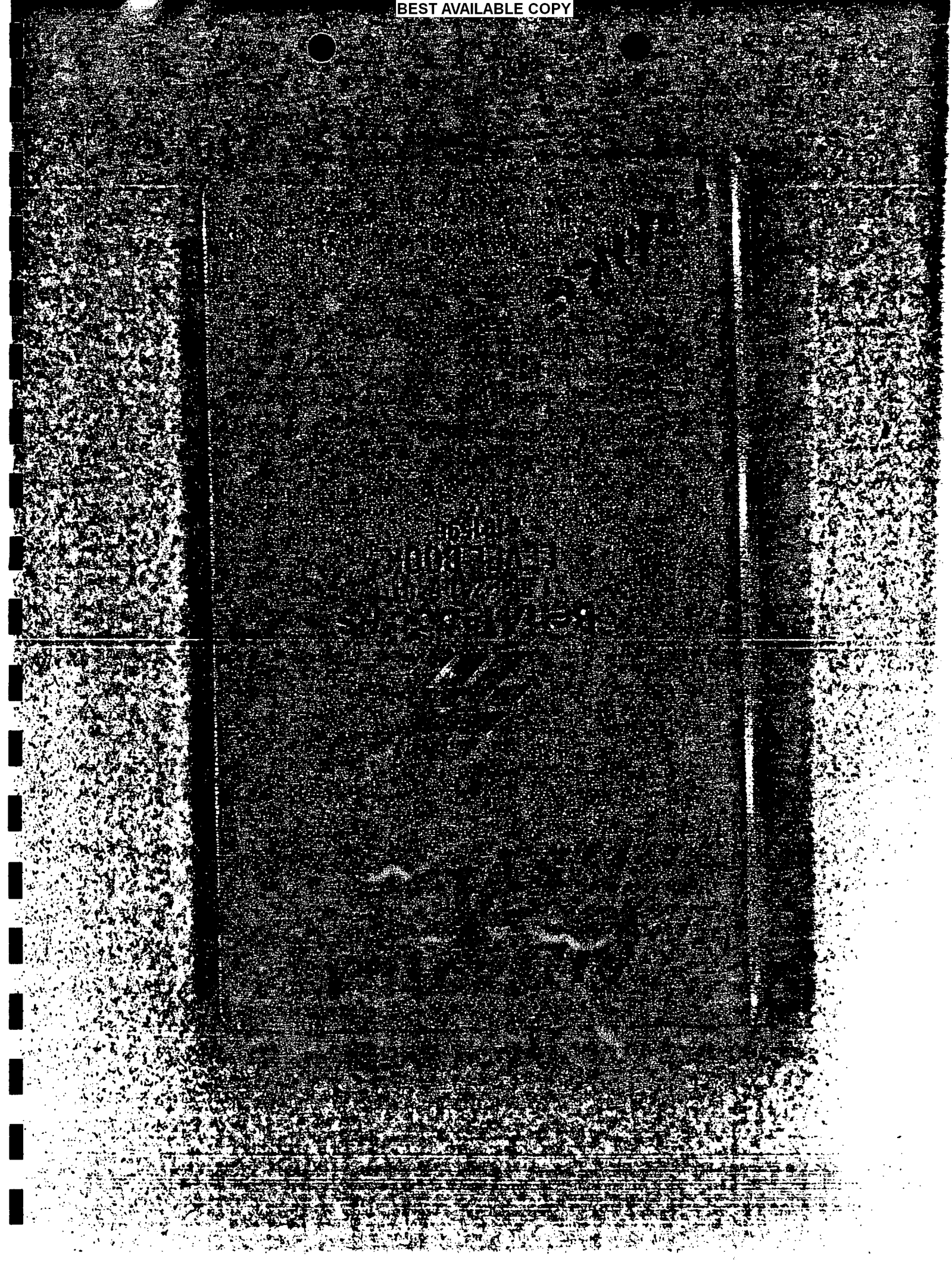
T301 - water
302 - perc
303 - TCE
304 - mixed solvent
305 - perc
306 - freon, TMC
307 - NMP
308 - freon TF
309 - methylene chloride
310 - 1,1,1 - TCA

T201 - TCE
202 - DCE
203 - 1,1,1
204 - methyl. chl.
205 - mixed solv.
206 - mixed "
207 - FTF
208 - ethanol
209 - water
210 - mixed solv.

(5)

(6)

T101	flammable
102	"
103	"
104	"
105	H20
106	~~flamm.~~ TCE
107	flamm.
108	~~DCE~~ flamm.
109	PCE
110	methy. chl.



MJF 20 MAY ①

LAIDLAW/TRICIL RPA

20 MAY 1990

11^{00} Arrived on-site with S. Shugart

11^{15} EPA representatives and FDER representative, Victor San Augustine 3, on-site

11^{30} Began orientation meeting.

CRUDE STORAGE - permitted storage tank

drums that come in are taken to drum storage build.

In staging area wastes are sampling has and analysis determines of the waste can be handled. Maximum capacity is 10 drums.

Tank Trucks - 2000-3000 gal from Chem waste. Sampled immediately.

Trucks are unloaded in fuel blending area.

Sampling is GC, color pH moisture

After samples drums are stored in building or processed.

Generally stored until enough is accumulated for a batch

Vacuum still
Thin Film Evaporator (TFE)
Intermediate Storage drier

Fuel Blend Area Tanks
T-111
T-112
T-114
} regulated Subpart G.

effective when state re-issues permit.

Sludge material is piped to tanks. bottoms & storage tank. - permitted

Fuel blending or disposal by incineration.

From Intermediates

Repeater or Fractionation Columns

product storage tanks (truck loading Area).

Fuel oil Tanks - not used, but full clean to be.

Tanks + piles are above ground.

No waste burned on site

Incinerator is gas powered.

Monitoring Wells

Seven new constructed when Tinsil purchased ESR

Water Supply Wells

Bastrop co supplies water to the site. Their wells are probably 600' deep.

On the east base water is from Bastrop.

Nearest population is ½ mile to east 1000 yds to the north,

12 drinking water wells in the area

~~Air Company~~

major recycle · recycled solvents:
TCE
Methylene Chloride
Freon 113
PCE

Storm water goes to retention ponds
Scraps go to ~~city of~~ Barstow
Waste water storage tank 6000 gal.
Sampled → Barstow WW treatment plant.

First 10-15 min of Storm water goes to waste water Storage tank

Runoff from roof → ponds.

Lab waste does go to fuel blending that which goes to septic will go to sanitary.

Waste water tank analyzed for T-604 TOC and GC Scan.

Water from two sumps goes to T-604

MW wells sampled annually.

Blended fuel is >5000 BTU/lb.

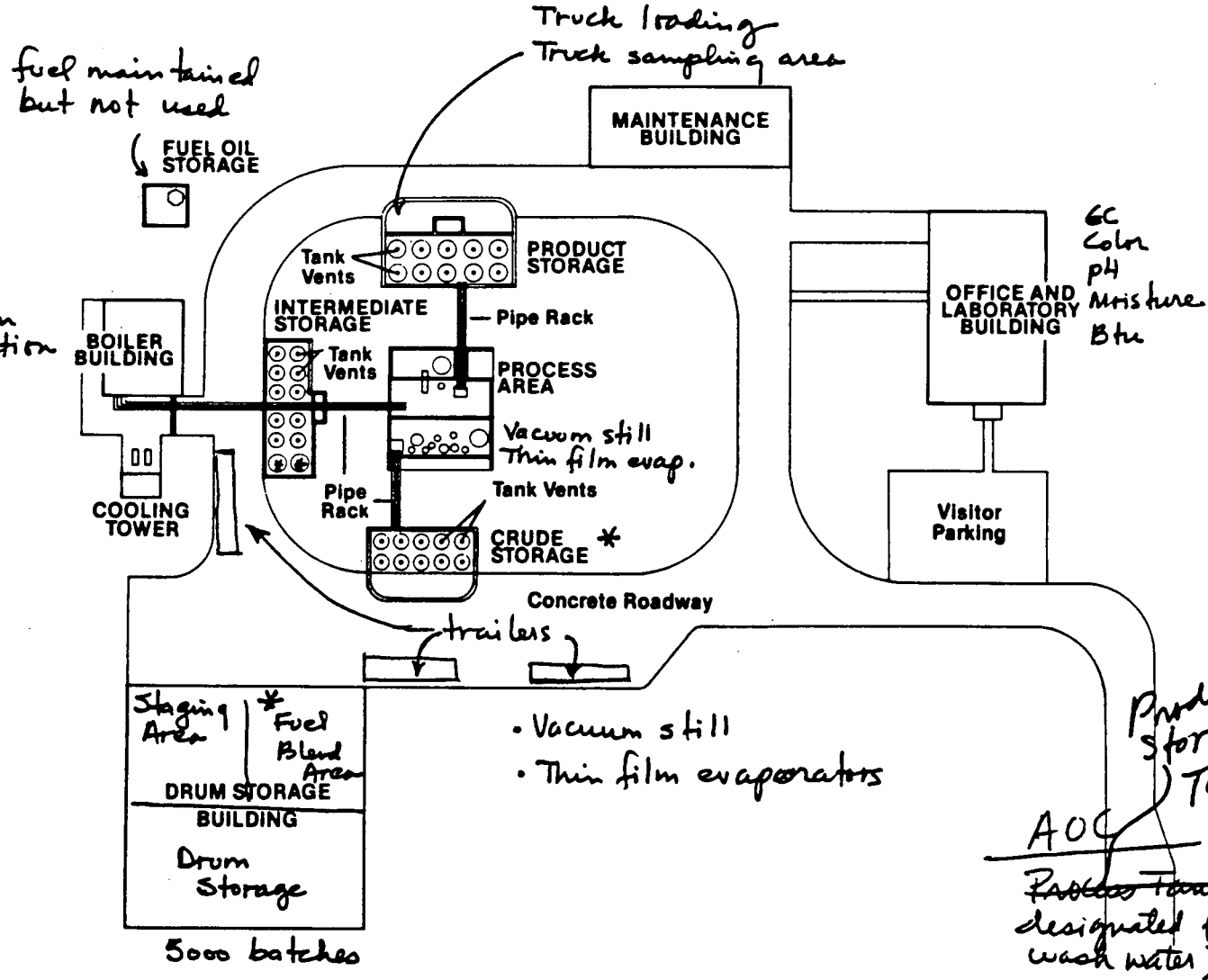
Empty drums are stored in trailers Odor ammitted from trailers.

GSX bought Trecil in 1990, and finished almost complete with name change.

TRICIL

Site Map

Tricil Recovery Services Inc.



AOC

~~Process Tanks~~ (2 designated for freon wash water)

SWMUs

- FBA
- Trailers
- Drum storage / Staging
- WW storage Tank/Sump
- Storm water pond
- Crude storage
- Intermediate storage
- Process Area
  - Thin film evap
  - Vacuum still
  - Frac. columns

- Monitoring wells - 7 + 2 addl'l. borings
Municipal wells - deep (600') from Bartow City water supply
Nearest residences are east and north
Private wells (see Part B)
- Process sumps discharge w.w. storage tank
Storm water discharged to retention ponds after initial flush (1. minutes) - storm water consists of driveways.
Process / drum storage is covered.

* regulated units /

Amnesty Days - Dumpster

1 May 91

- Visit to DER District office in Tampa. Met with Bill Crawford, Hazardous waste Section. went to Air Programs to review project files for Tricil.

- Mtg. w/ Victor Sim Agustin (VSA) 40 CFR
VSA concerned about spillage and condition of T111, T112, and T114

- Mtg. w/ Bill Crawford
Suggested talking w/ Polk Co. DOT about air photographs
dicyclopentadiene odor

- TCT engineer, Property Appraiser
Spoke w/ Lorraine Thein
353 North Wilson (1 blk east of new courthouse) 534-4111

⑥ YMF 20 MAY

Pegasus - Niagara Incorporated.

1-gallon can crushers used for household hazardous waste.

4 Process vents
column vent

Afternoon Mtg.

TRICIL will submit to
GeoSyntec the original ground water
monitoring report and 1990
Analysis.
FOER will provide a copy
of OSHA Report.

IDENTIFIED BUILDINGS YMF 20 MAY ⑦

① Fuel Blend Area

② Drum Storage Area
including Staging Area

③ Waste Water Treatment storage Tank
may include Sumps.

④ Retention Ponds?
North - Ravines and Grounds
South - Driveway areas

⑤ Crude Storage Tanks (South Tank Farm)

⑥ Intermediate Storage
Still Bottoms and Sludge Tanks
200-Series Tanks

⑦ Process Area
items discreet units
Thin Film Evaporator
Vacuum Still
Fractionation Columns.
1 containment system.
2 Sumps.

(8) AOC - Product Storage area
1 or 2 Tanks used for
process water.

process water stored in product
storage area. Gets recycled
through freon wash system.
At saturation sends through
fractionation column to remove
alcohol. Water recycled
eventually goes to incineration.

(9) Trailers Storing Empty Drums? -

(10) Dumpster. Covered
receives waste paint cans.
from "monthly day" wastes.
Crushed cans are dusted with
cement to prevent drums.

Goes to Pinewood SC to a
secure Landfill.

Trucks unload to the Fuel Blend
Area. Then piped to Crude
Storage via a/h pipe system.

Fuel is loaded in the Crude storage
area.

Samples from lab are stored
30 days in a sample storage cabinet
in the drum storage area.
Then goes to waste fuel blend
area.

3'15 Lab Tour.
Sample room - pre-shipment
samples held for 3-5 days then they
go to drum storage area for 30 day
storage.
Lab used to be leased by Wadsworth (MOE)
until 1991

Hazardous waste accumulated in 5-gallon jug under fume hood. ~~jug~~ was open. Emptied into drum in Drum Storage area

2'nd ~~drum~~ container in other fume hood. lid on.

Rain has started

#2 open hazardous waste accumulation jug in lab fume hood

3 Plastic lab waste tank - 3" of residue in bottom. Odor from top. Used by Wadsworth Lab in past. not used by Laidlaw - from [illegible] [illegible]

4 Drain in bottom of Wadsworth lab wastewater tank.

5 Waste water Storage Tank.

6 Haz Waste overpack drums in Maintenance building emptied after each ~~[illegible]~~ shift. collects "booties" worn in haz. waste area.

7. Product Storage tanks. (PST) 10 - 8,500-gal SS tanks.

8+9 sump in PST containment area pumped to process area sumps which are pumped to T609

10+11 Process area fractionation column.

(14) 19F 20 May

12 Sump near rebailer pumps to process area.

13+14 Rebailer S302

15 Satellite Accumulation in Process area.

16. Vacuum still

17 West Sump - receives water from Process area under vacuum still TFE Crumb Storage area, PST and Rebailer.

18 East Sumps. Receives water from Fractionation column

19 Freon Wash Tank T-401

20+21 TFE H-201

22+23 R-2 Bottoms Tanks

24+25 Process area

Photo Log. 2'nd Roll. 4/19F 20 May (13)

1. Crude Storage Tank Area

2 Sump in R-2 Containment Area.

3 Intermediate Storage Tank Area

4 Sump in intermediate Storage Area

5. Covered Dumpster.

6. Trailer W/ Empty Drums

7. Fresh Blend Area

8 Trailer of Empty drums

9. Reactors 19: West end Sump
20: R-2
21: Satellite Drum in PA
22: Vacuum still
23 Freon wash
24: TPE

10. T-112

11 Drum Staging / Sampling Area

12 Drum Storage Area

13. T-114/Shredder

14-17 Pouring waste into T-112

18 - Process Area

(14) 3rd Roll HF 20 May

1-2 Final Roof Area

3-201 Panoramic Starting at office Building

22 Drums Staging area.

23 Drum storage area

24 Covered dumpsite

4th Roll

1 T-112, T-111

2-4 Sumps in Drum Storage Building

5 opening drums

6 T-114

7 Crusher Storage area

8 trailer w/ empty drums

9. Paint can Shredder

11 Storage Cabinet for samples

12 Intermediate Storage

HF 20 May (15)

19 Reboiler Sump HF 21 May

20 Waste water tank

21 " Sump

22 Retention Pond (South)

23 Stormwater runoff Sump from driveway

24 N. Retention Pond

5:30 End Fuvr. All off site

20 May 1991

5/21 Roll #5

1:40 France + Shepard on-site

1-2 Lab Wastewater tank

3-4 Process area

4-5 Lab wastewater tank drain

6 Booty Collection drum in Maintenance building.

7 Product Storage Tanks

8 " Sump

9. Boiler Building

10. Fuel Oil Tanks

11. Intermediate Storage Tanks

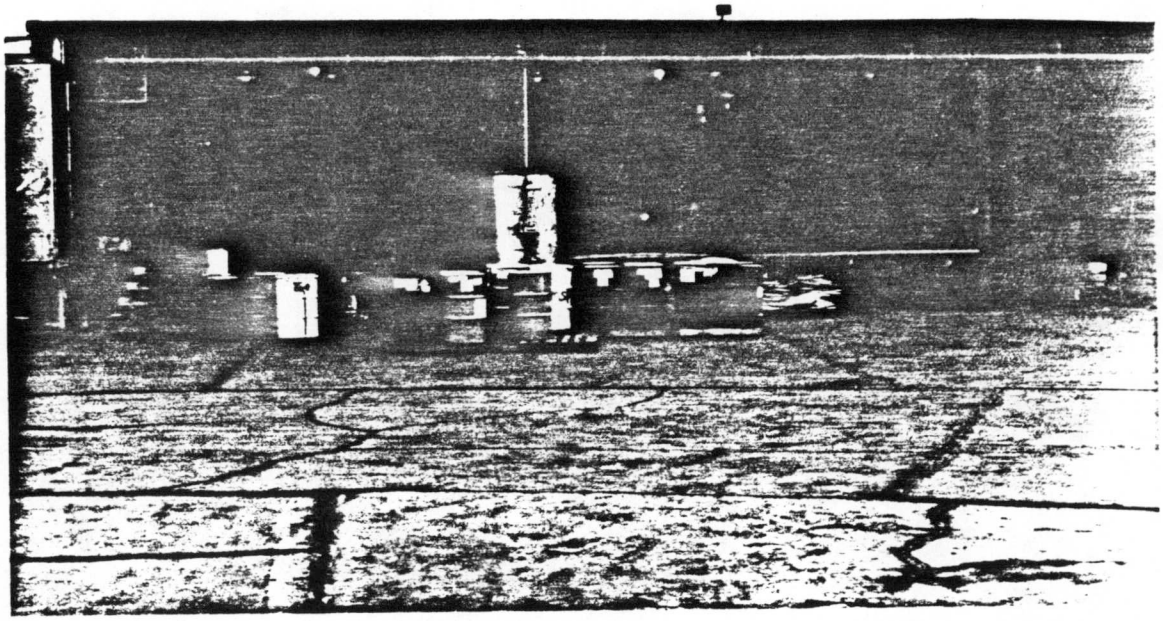
YAF 21 MAY

12. Fractionation Column
13. R-3, R-2 Bottoms Tanks
~~14. Crude Storage Area~~ YAF
14 15. Vacuum Still TF15
15 16. Crude Tank
16 17. General Dumpster
17 Pegasus Diesel Drum Area.
18. T-112, T-111
19. T-114
20. Shredder (Fuel Blend Area)
21 Fuel Blend Area
22 Sump (west) in Process area
23. T-604 Waste Water Tank & Sump (east side)
24 Process Area
25

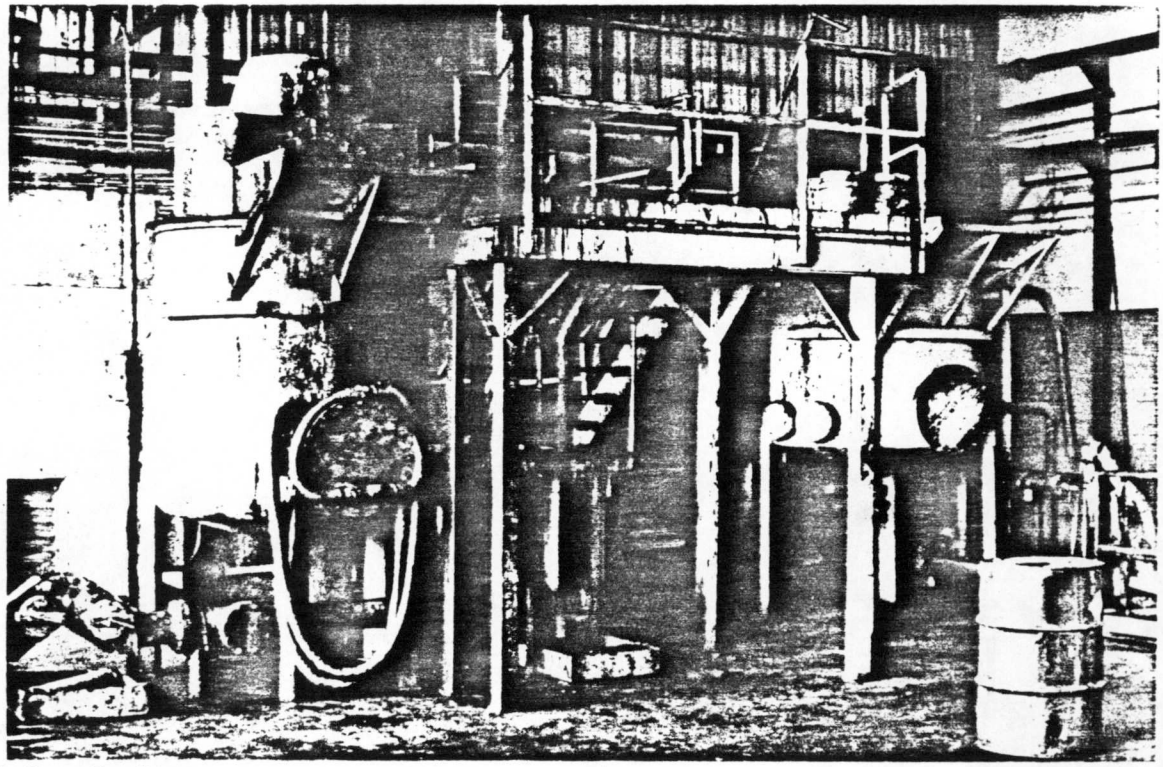
YAF 21 MAY 1991

APPENDIX B

PHOTOGRAPHIC LOG

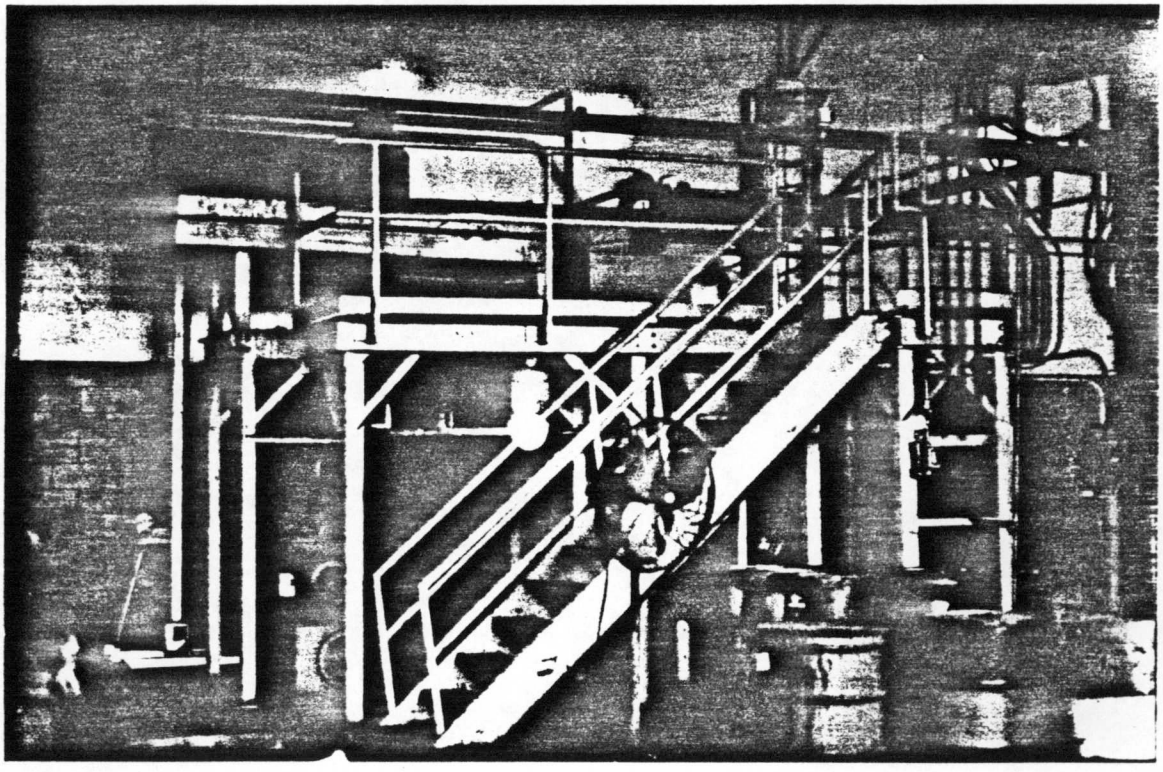


1.1 View looking south into the hazardous waste fuel blending area (SWMU No. 1). Cracks in the driveway have been repaired (sealed).

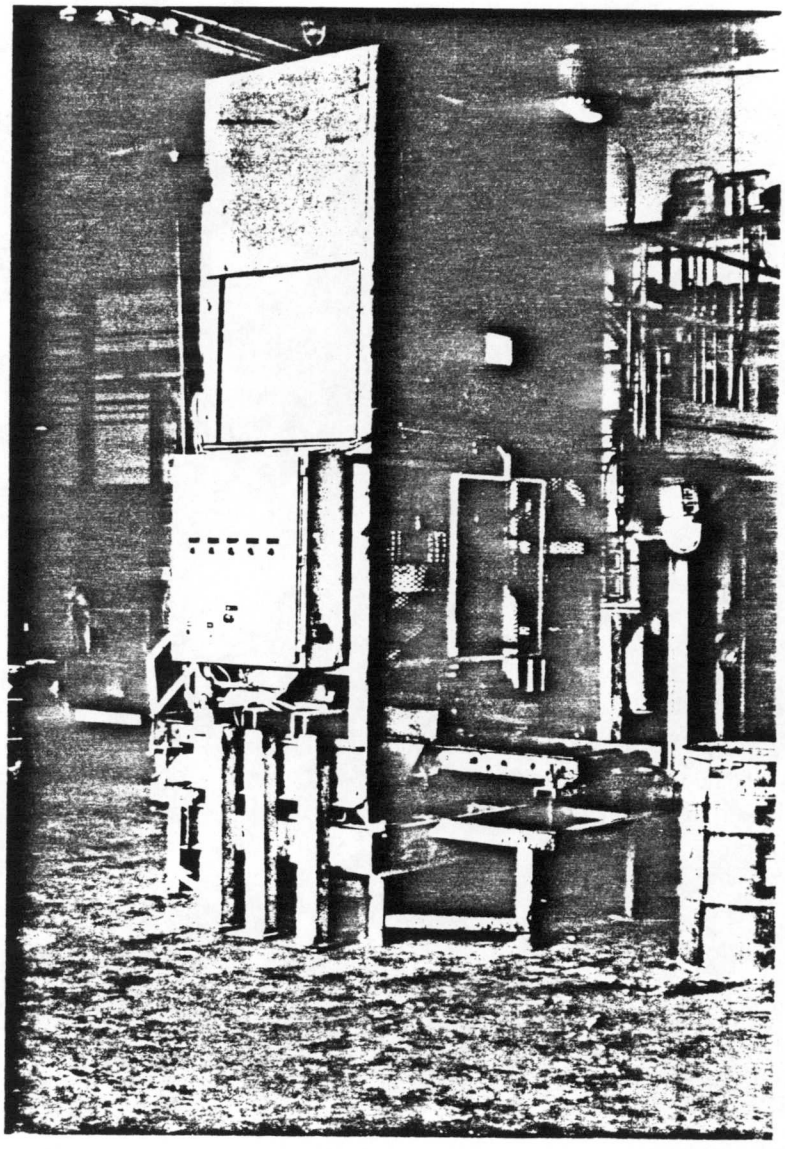


1.2 Fuel Blend Tanks (T-112 (on left) and T-111 (on right). The tanks and "catwalk" are stained from routine use of the equipment.

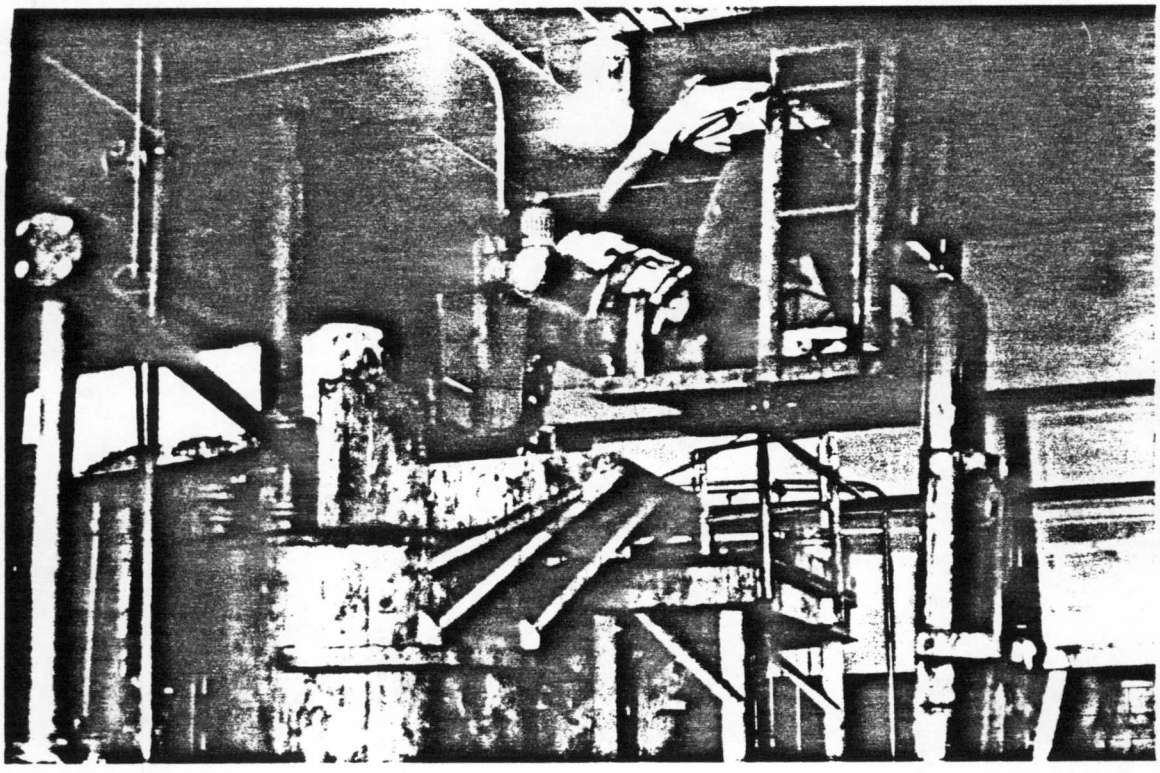
1.3 Fuel blend tank T-114.



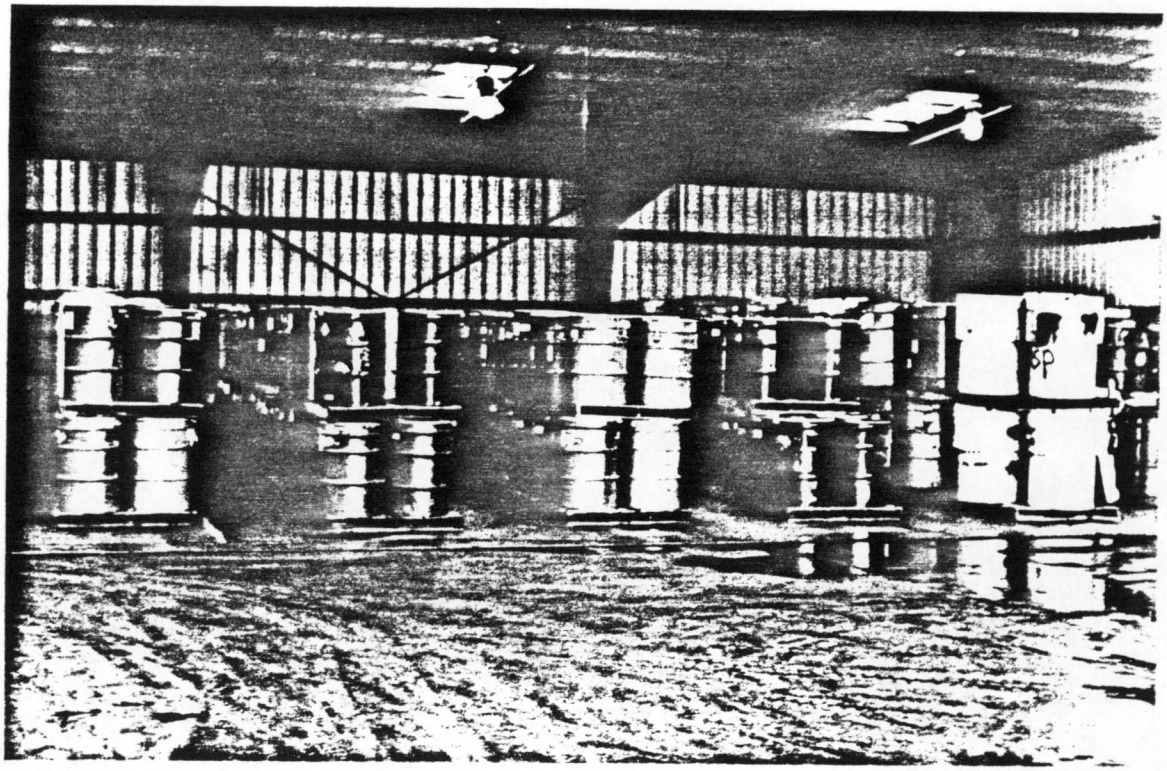
1.4 Unpermitted shredder/grinding shredder and assembly (not in use).



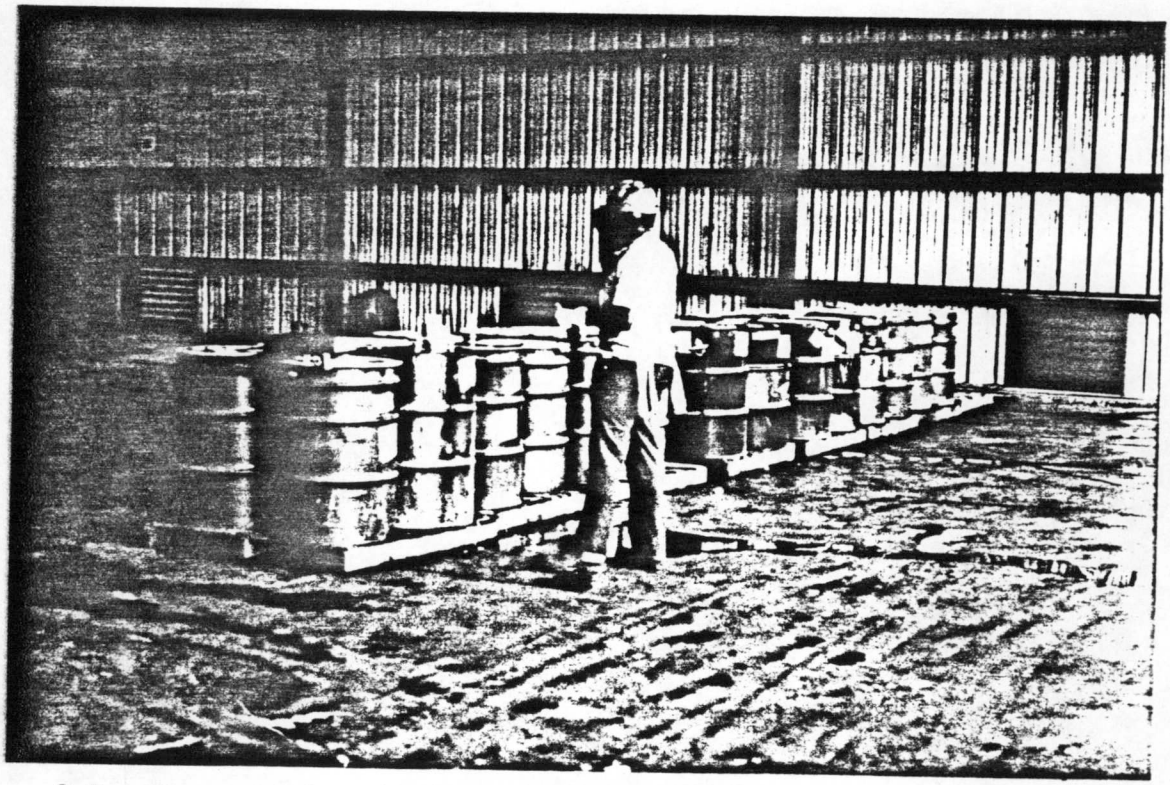
1.5 Pegasus drum scraping machine.



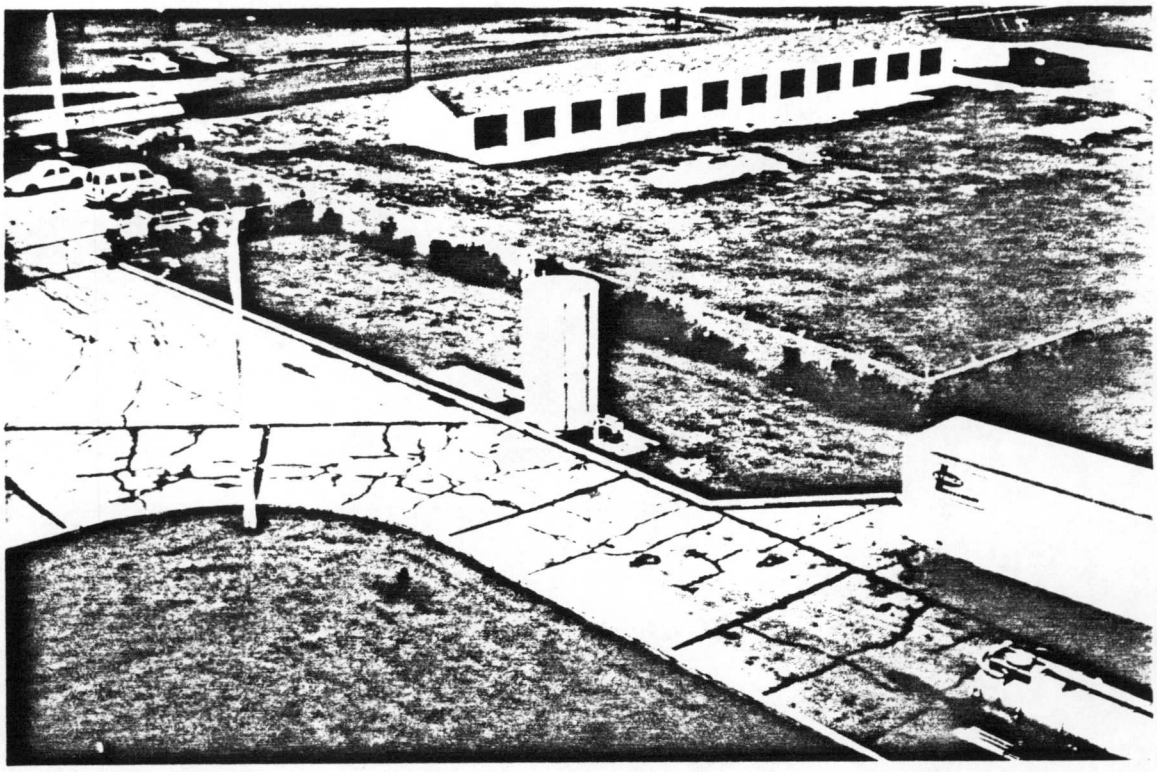
1.6 Waste being poured into Fuel Blend Tank T-112.



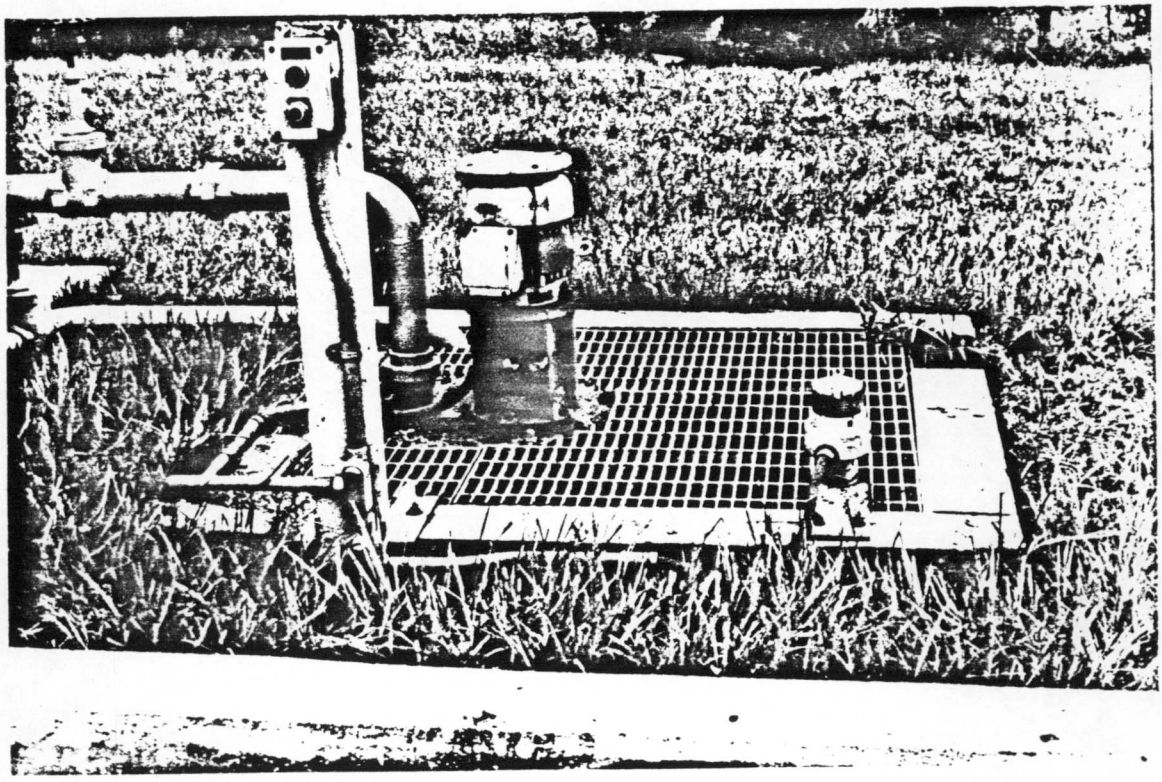
2.1 Drum storage area. Water on the floor is a result of a recent rainfall. Precipitation can enter the open north side of the drum storage building.



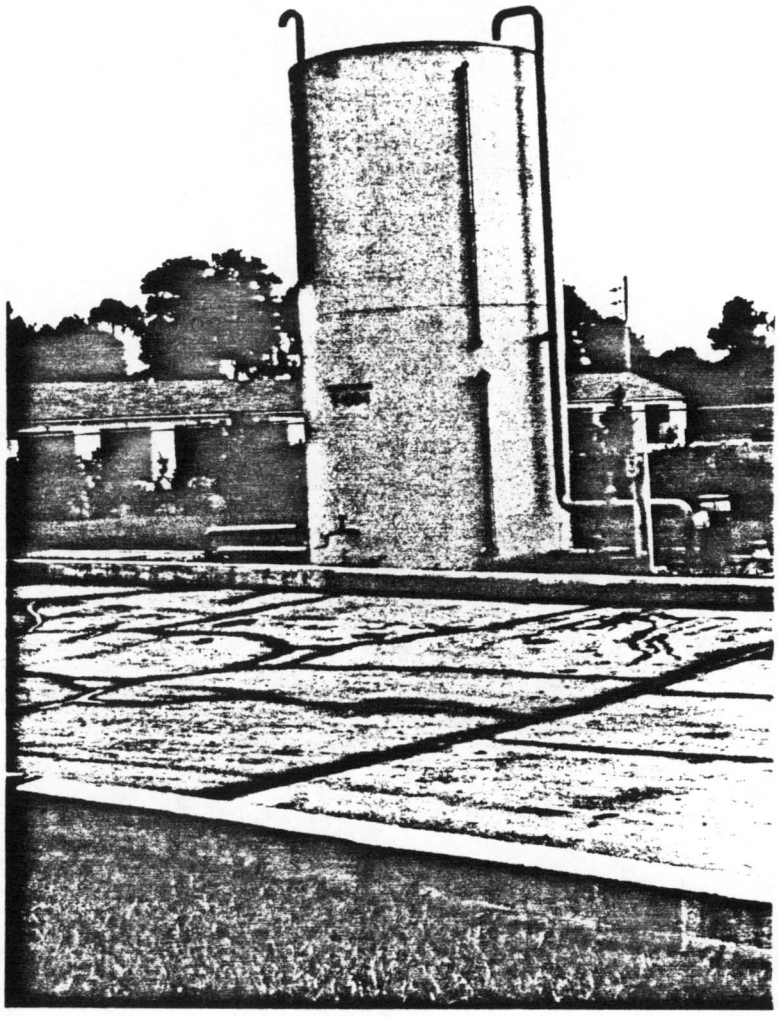
2.2 Drum staging. Workers sample and characterize incoming wastes.



3.1 6000-gallon waste-water collection tank (T-604) and adjacent sumps. Cracks in driveway are sealed.



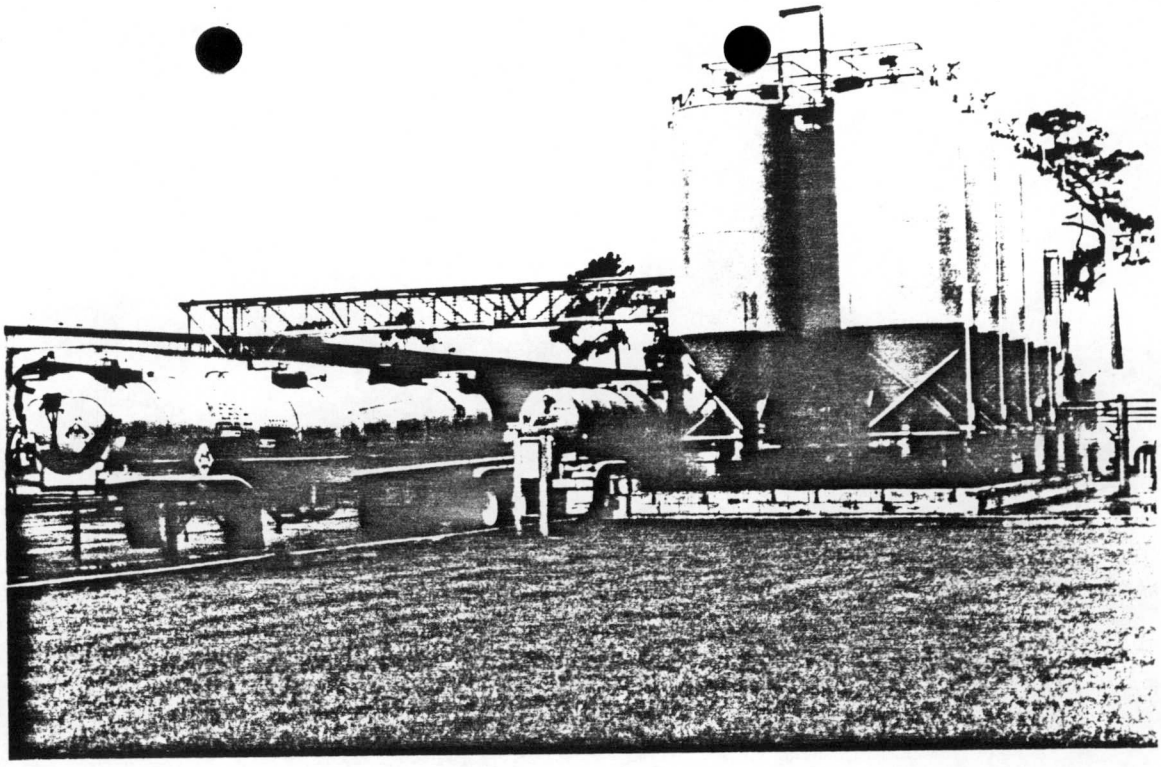
3.2 West sump on waste-water collection tanks.



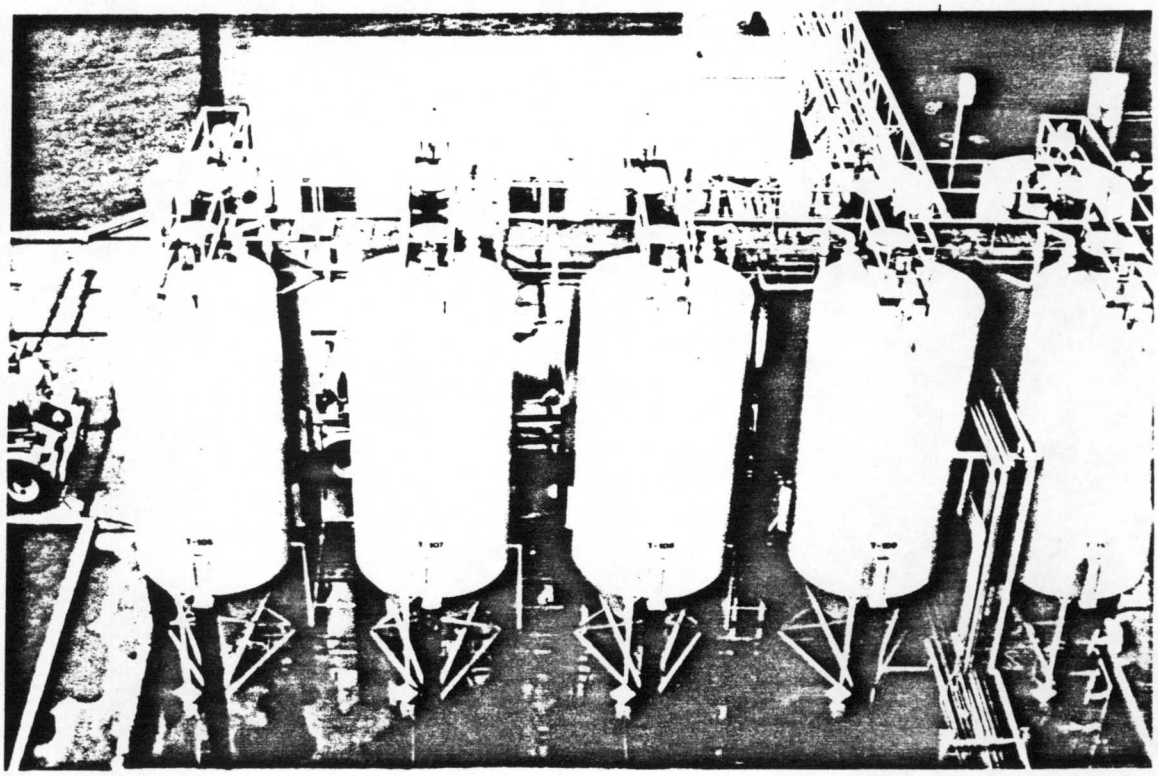
3.3 Waste-water collection tank (T-604).

4.1 South retention pond located south of the waste-water collection tank (SWMU No. 3). Two site monitoring wells can be seen in the left foreground and left background.

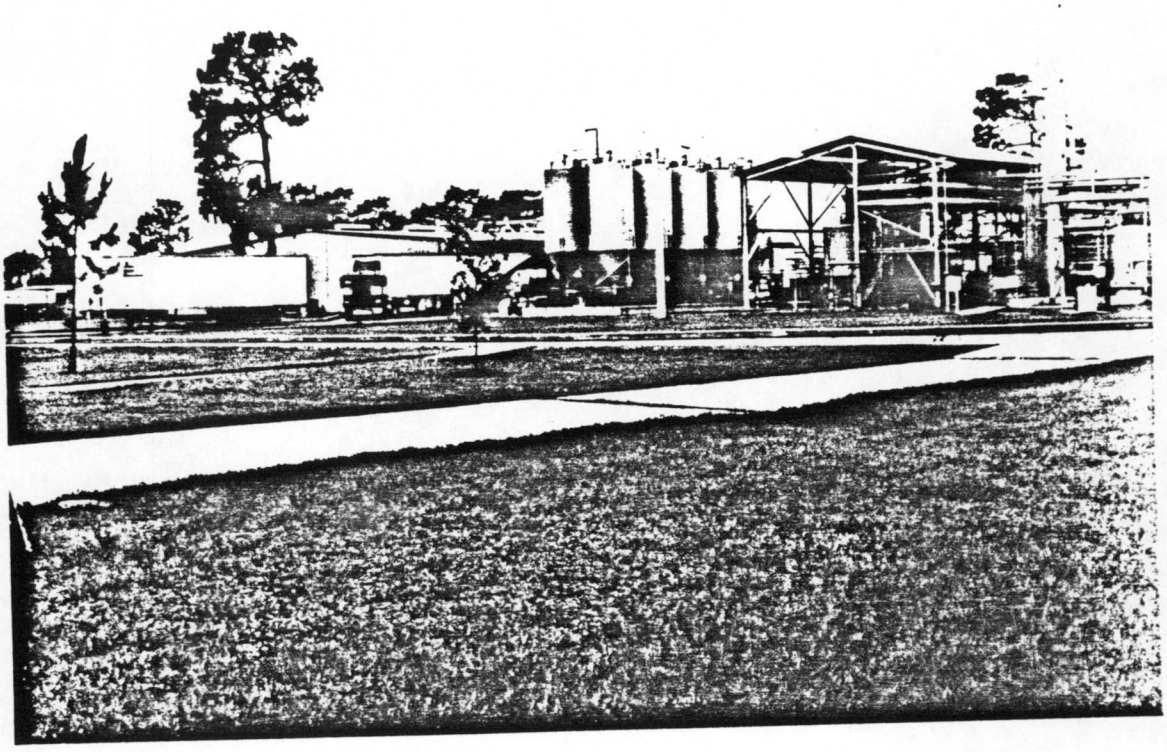
4.2 View looking east toward north retention pond.



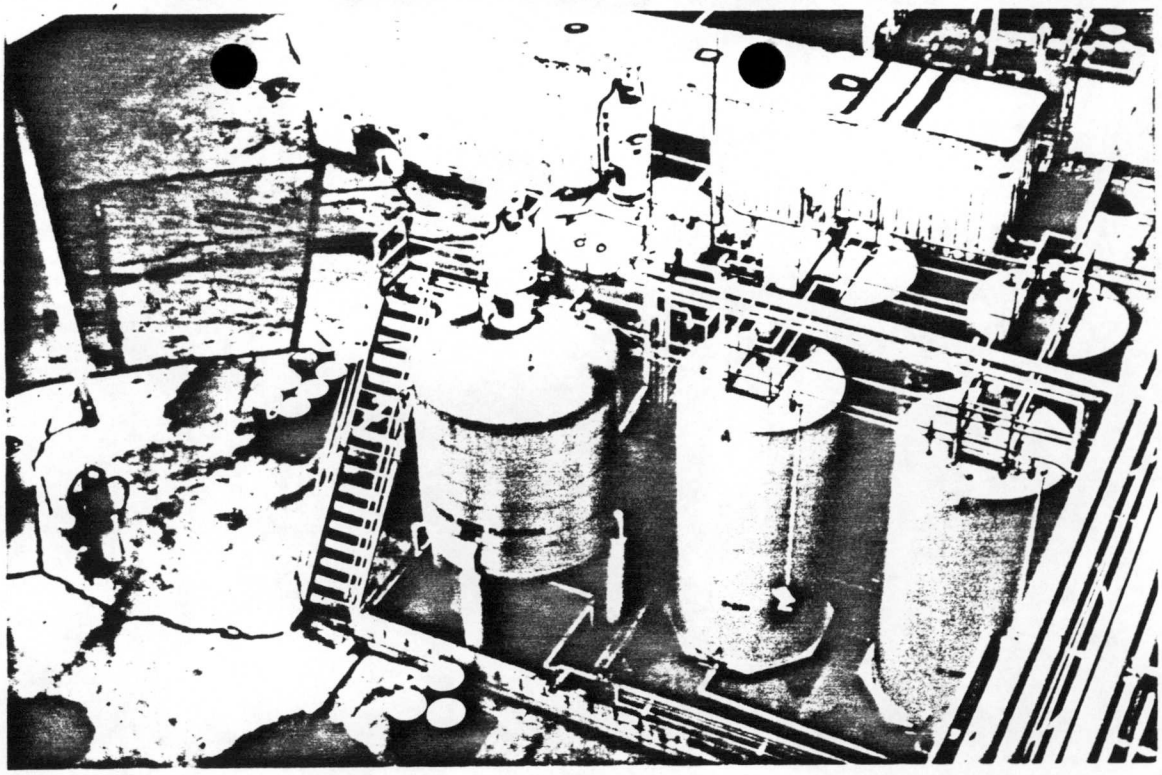
5.1 View looking southwest to the crude storage area (south tank farm); overhead pipes go to hazardous waste fuel blending area (SWMU No. 1).



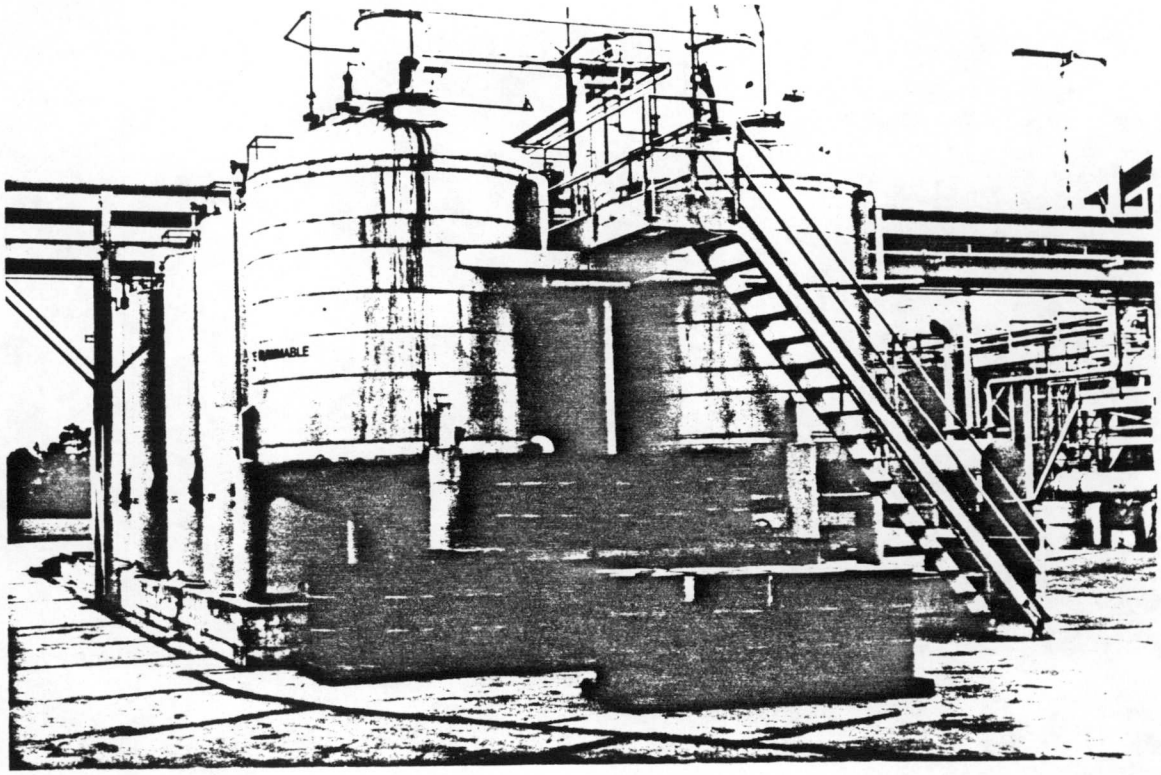
5.2 Crude storage area.



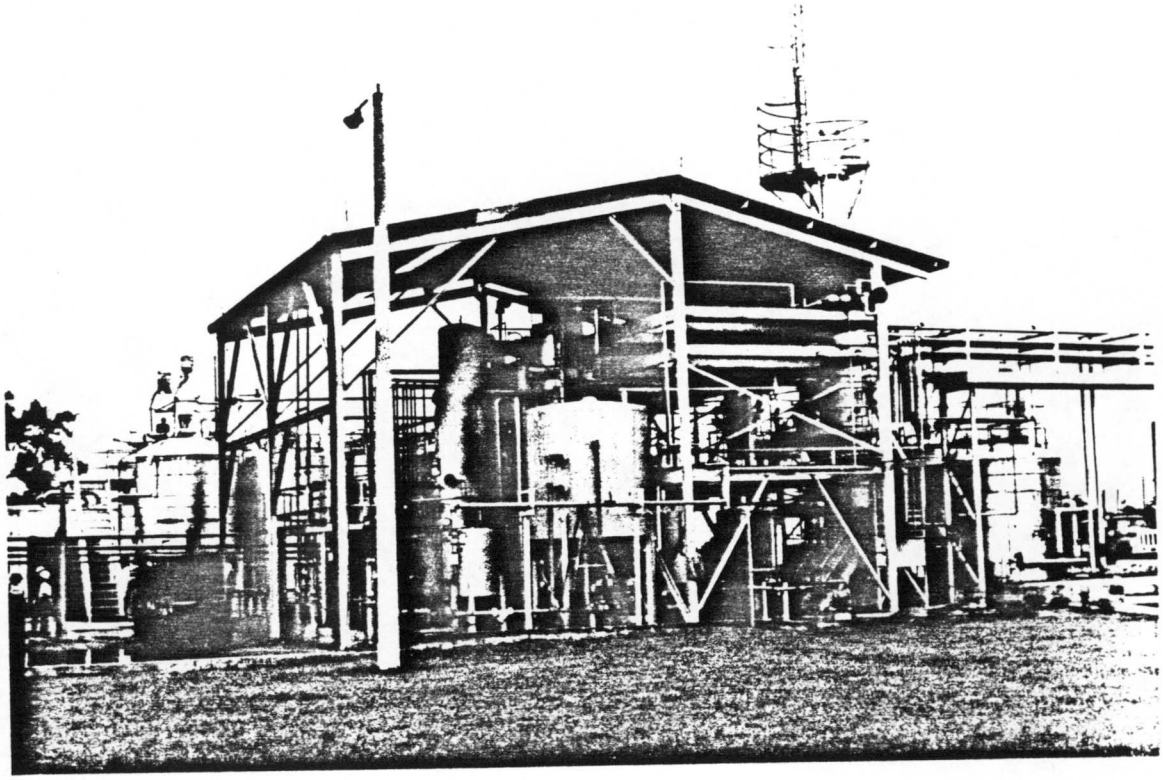
5.3 View looking southwest to the crude storage area. Process area is located to the right. Trailers containing empty drums can be seen on the driveway.



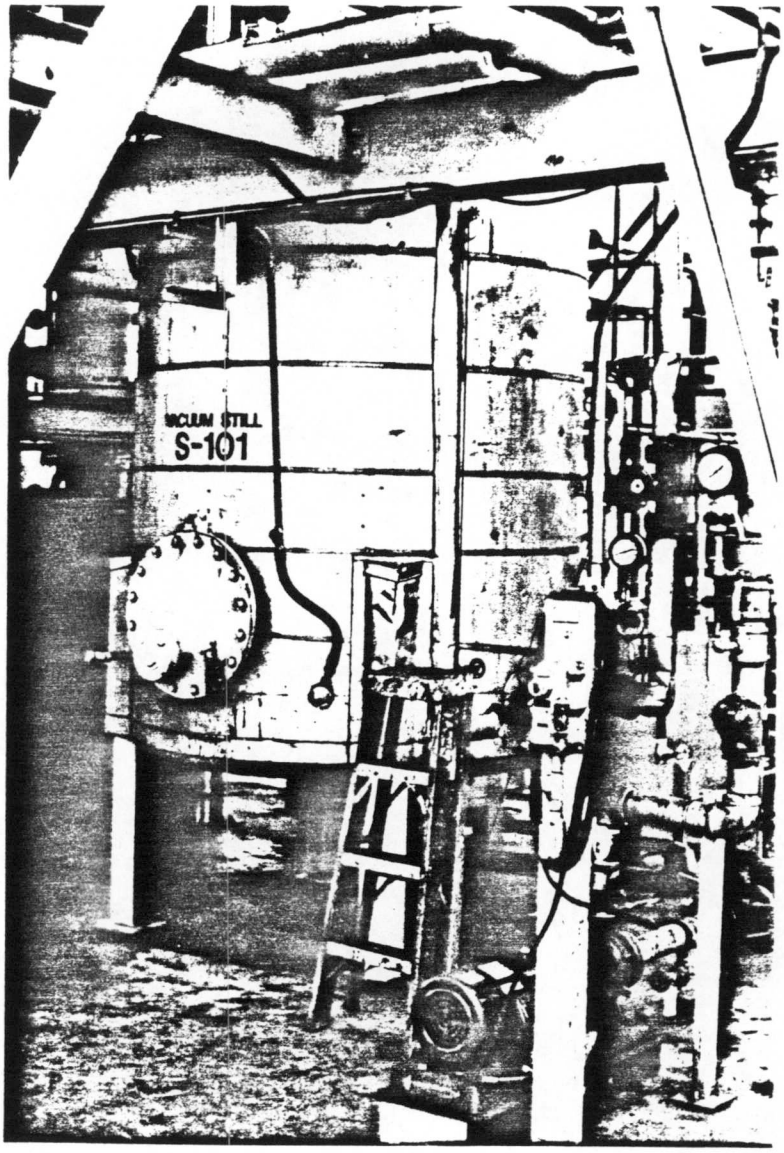
6.1 South end of the intermediate storage area (west tank farm). The two silver tanks on the southernmost end are still bottoms tanks (R-2 and R-3). Other tanks store solvents. Drums are new and not in use.



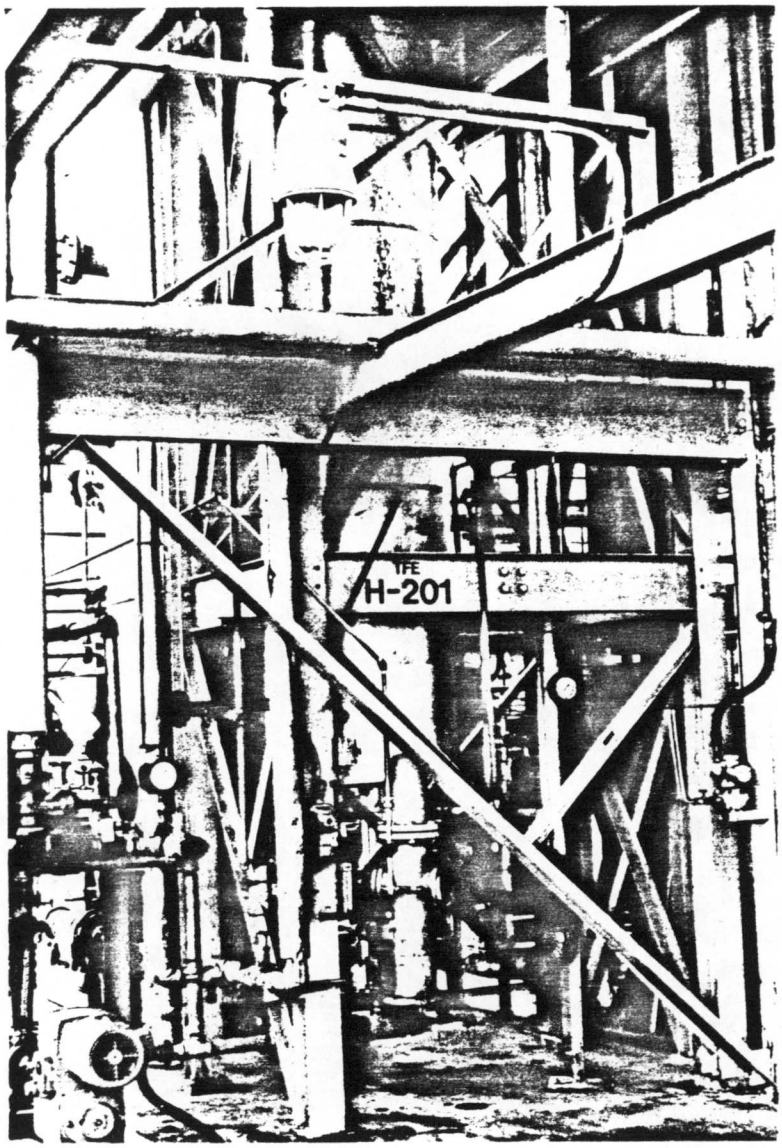
6.2 View looking north at the intermediate storage area. Drums in foreground are new empty drums.



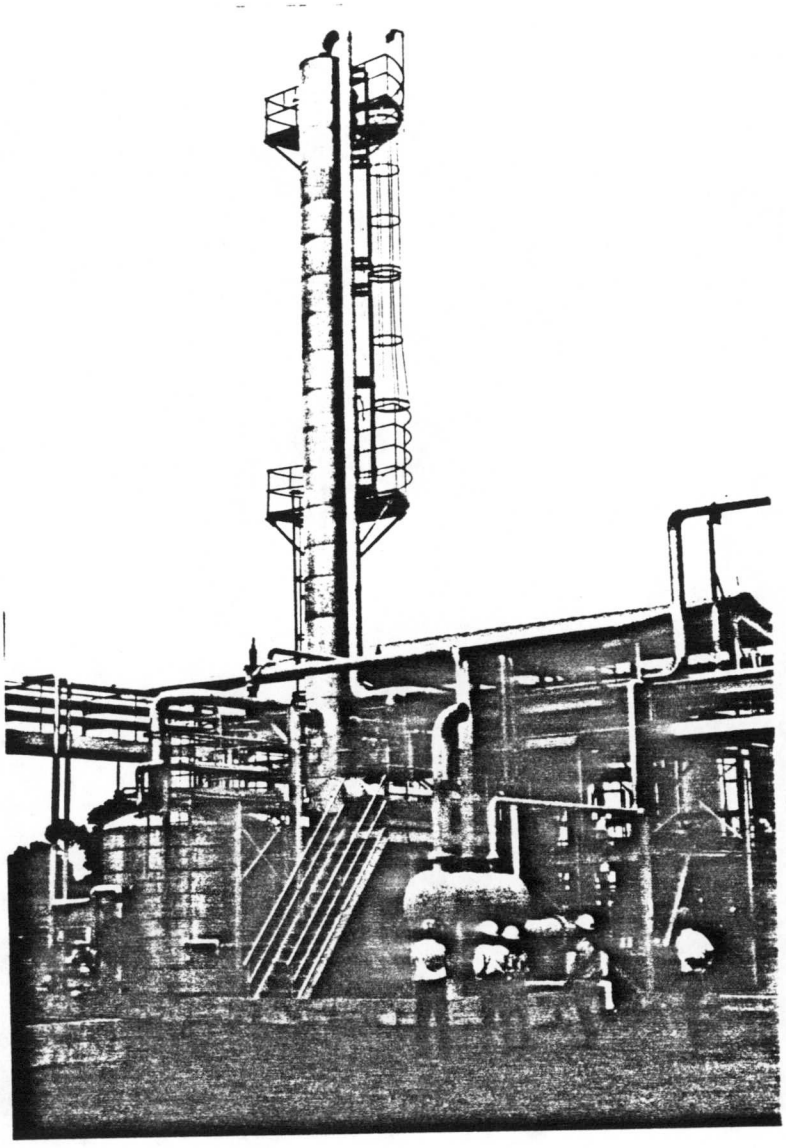
7.1 View looking northeast at the process area.



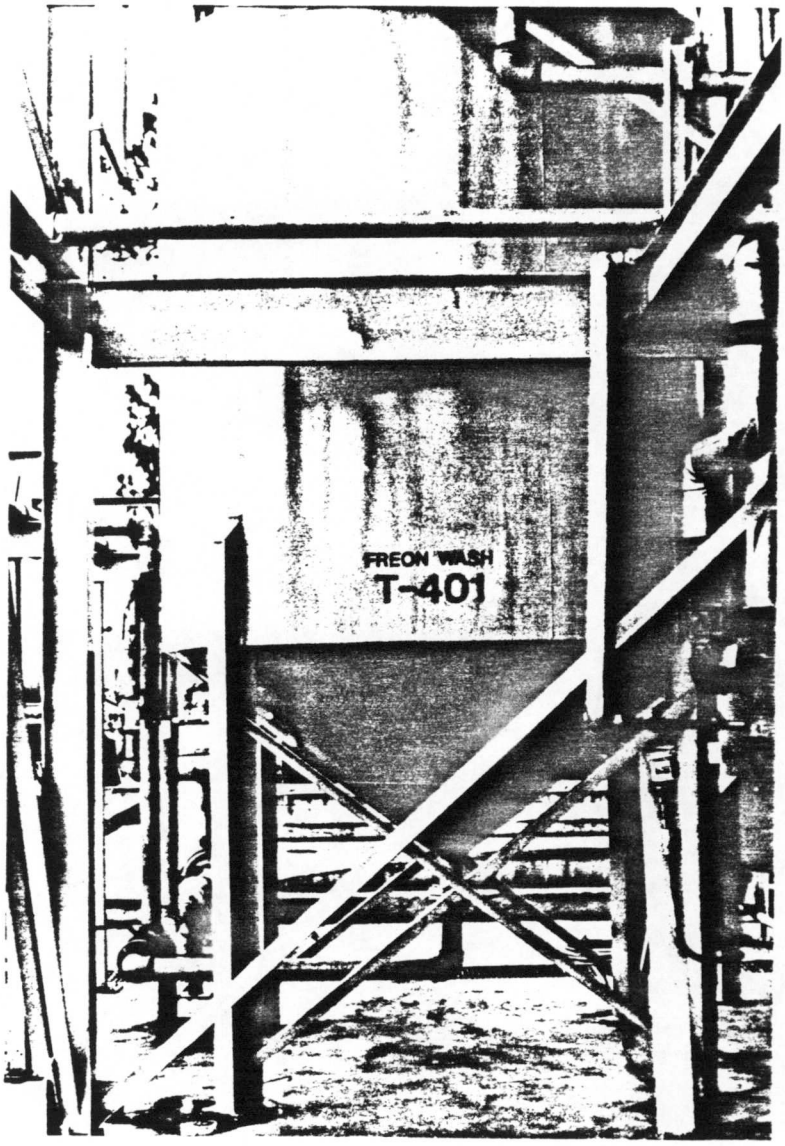
7.2 Vacuum still.



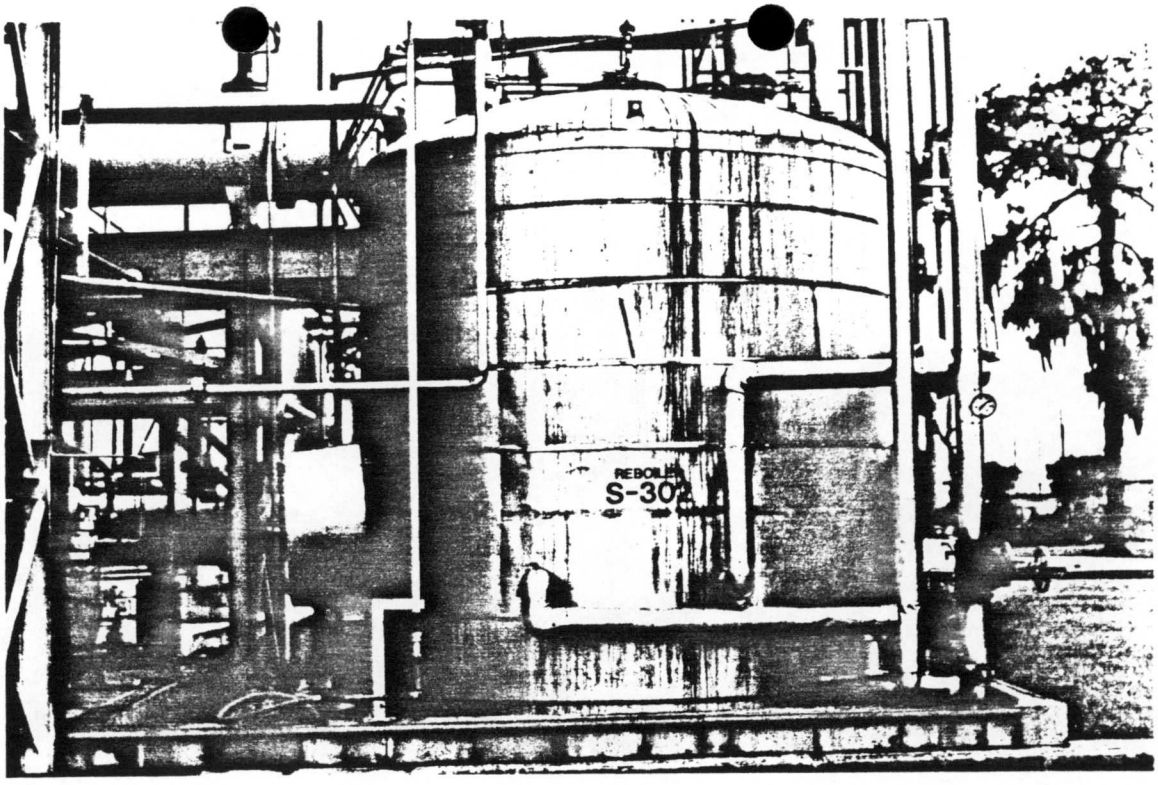
7.3 Thin film evaporator (TFE).



7.4 View looking southeast at the fractionation column.



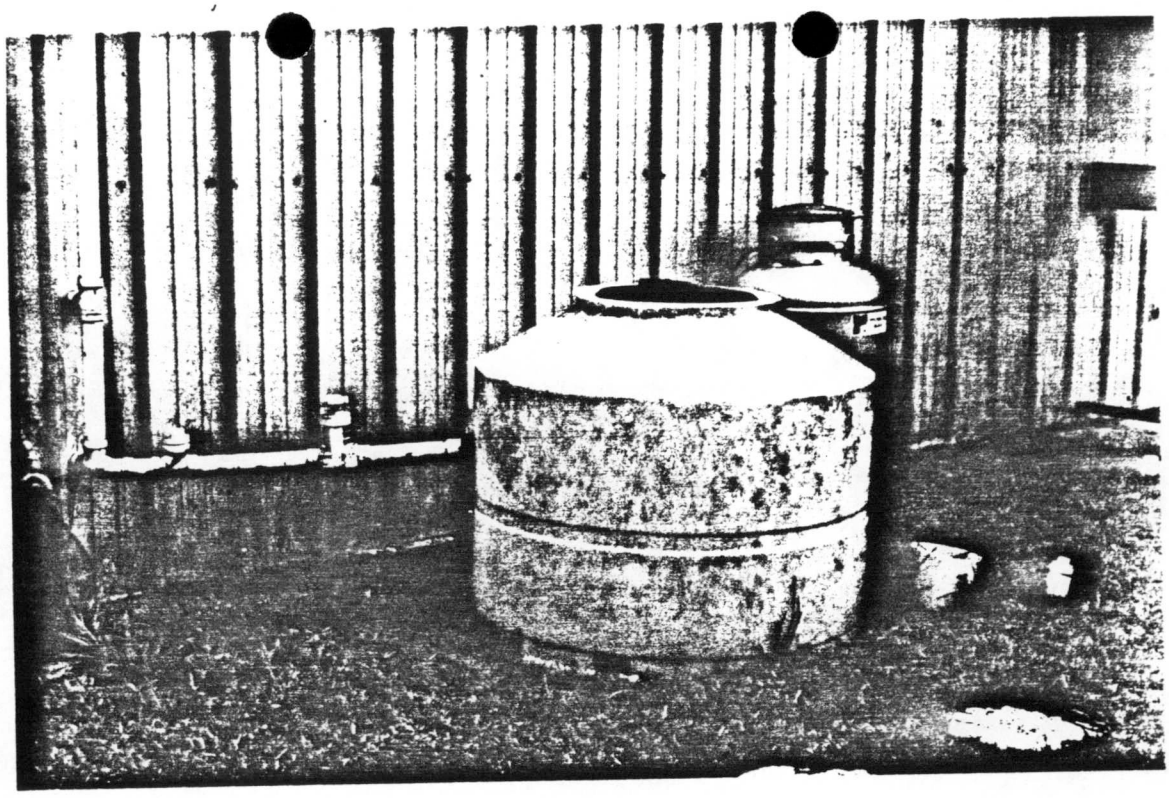
7.5 Freon wash tank (liquid/liquid separator).



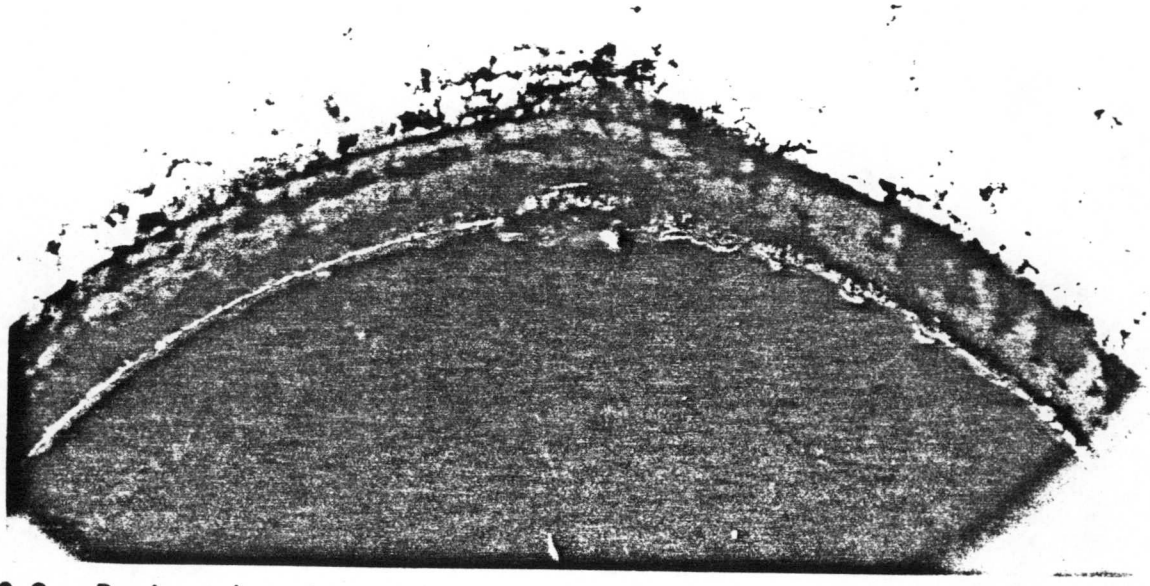
7.6 Reboiler (in line with fractionation column) on north end of the process area.

7.7 Satellite accumulation drums in process area. Used to collect viscous still bottoms and drainage from lines opened for maintenance.

8.1 Amnesty Days dumpster located adjacent to drum unloading ramp. Bays in the background open to the drum staging area (SWMU No. 2).



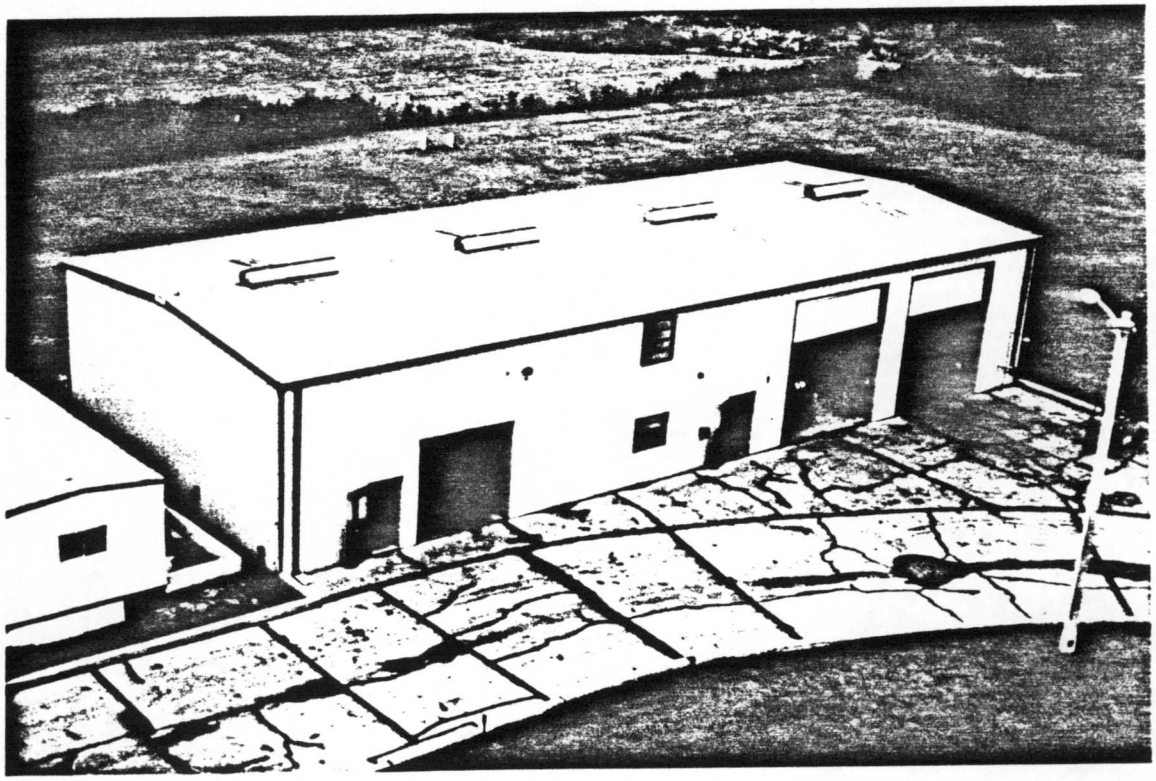
9.1 View of fume hood drain collection tank. Along north wall of the office/laboratory building. Vertical pipe is a vent. Drain (shown in Photograph 9.2) is on the right side of the tank.



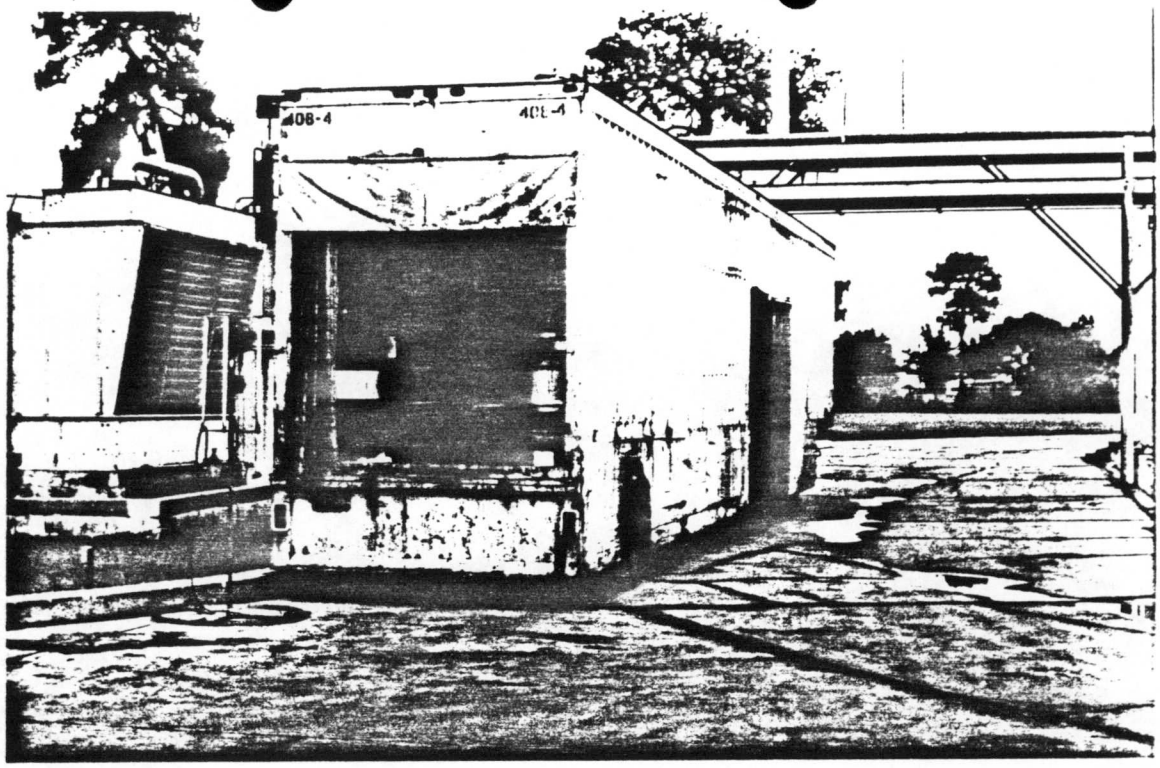
9.2 Drain and residue in bottom of the fume hood drain collection tank.

10.1 5-gal (19-l) satellite accumulation container in laboratory fumehood. Used to collect laboratory glassware cleaning rinsate (predominantly acetone).

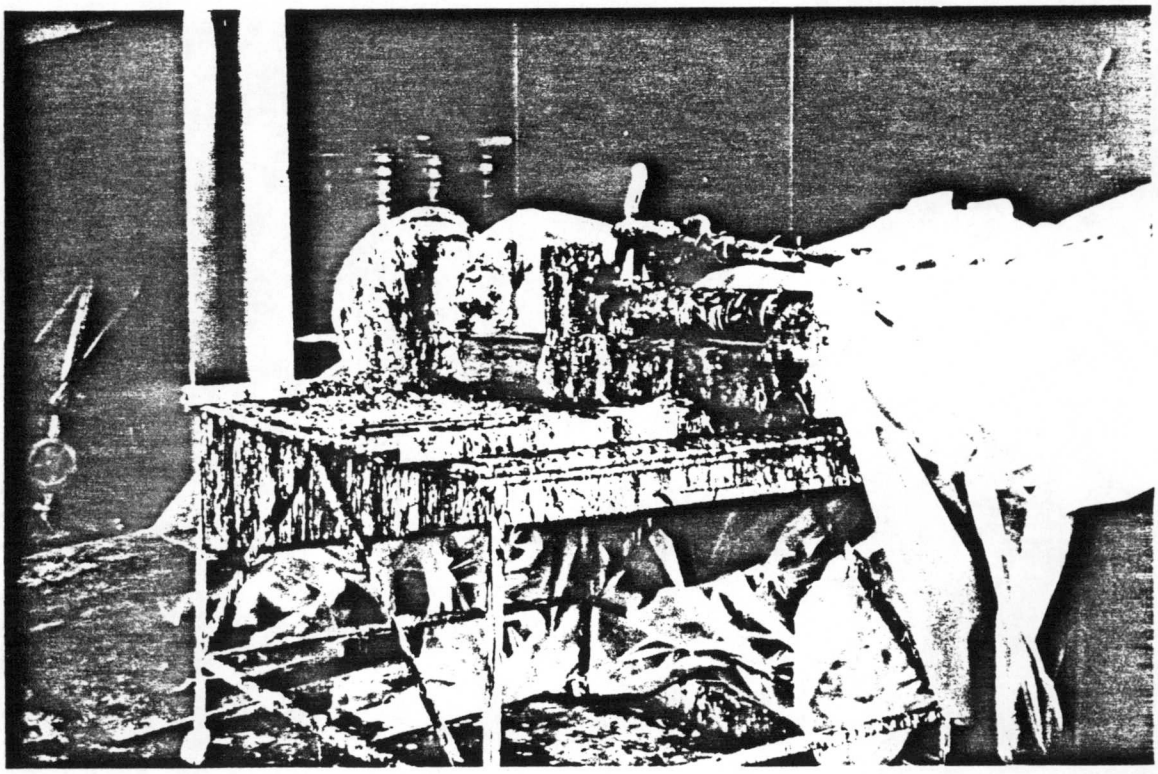
11.1 Boot cover disposal drum in maintenance building.



12.1 View looking northeast at maintenance building. The former laboratory trailer is to the left of the maintenance building. The laboratory drain collection tank containment pad (SWMU No. 12) is between the trailer and the building.

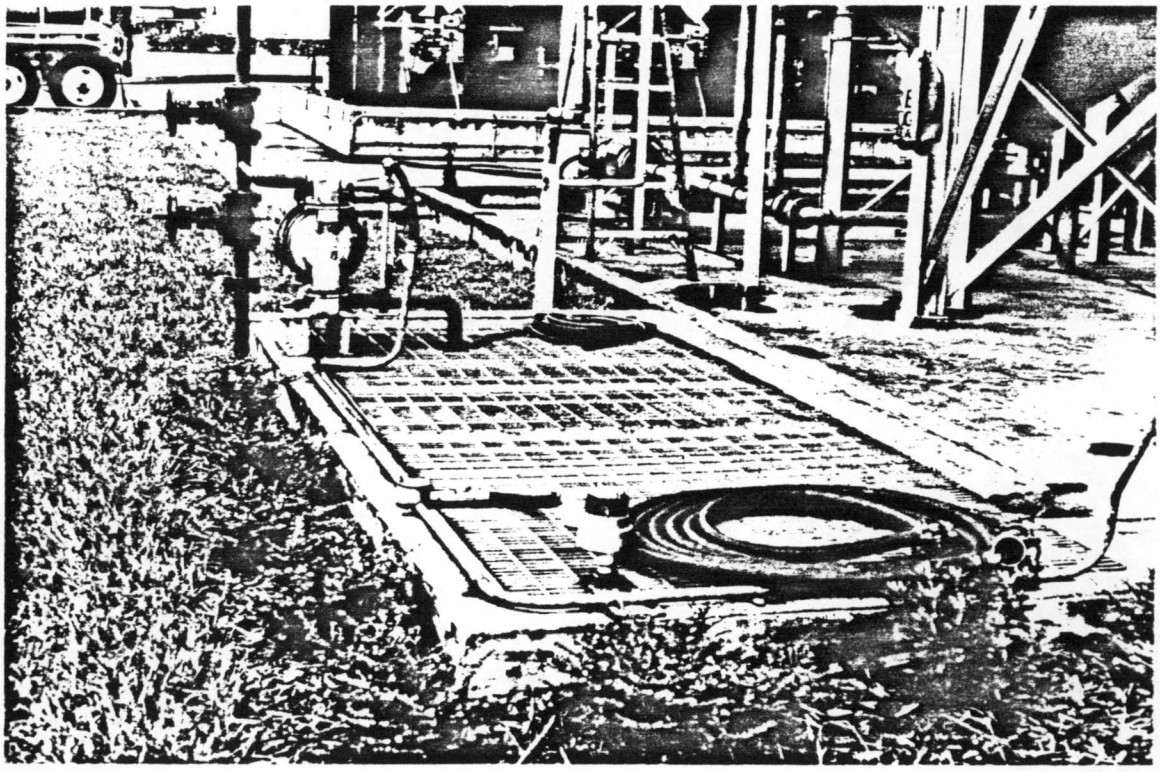


AA Empty drums are stored in trailers prior to removal off-site.

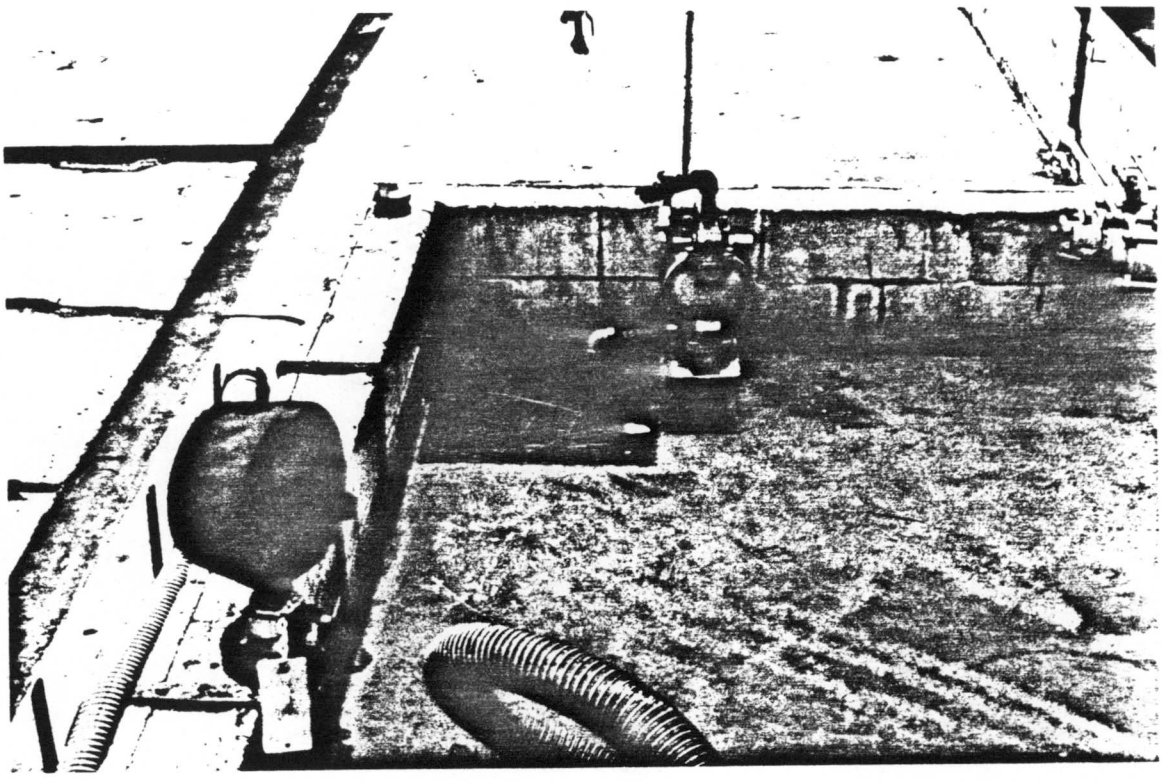


BB Paint can crusher stored in hazardous waste fuel blending area (SWMU No. 1).

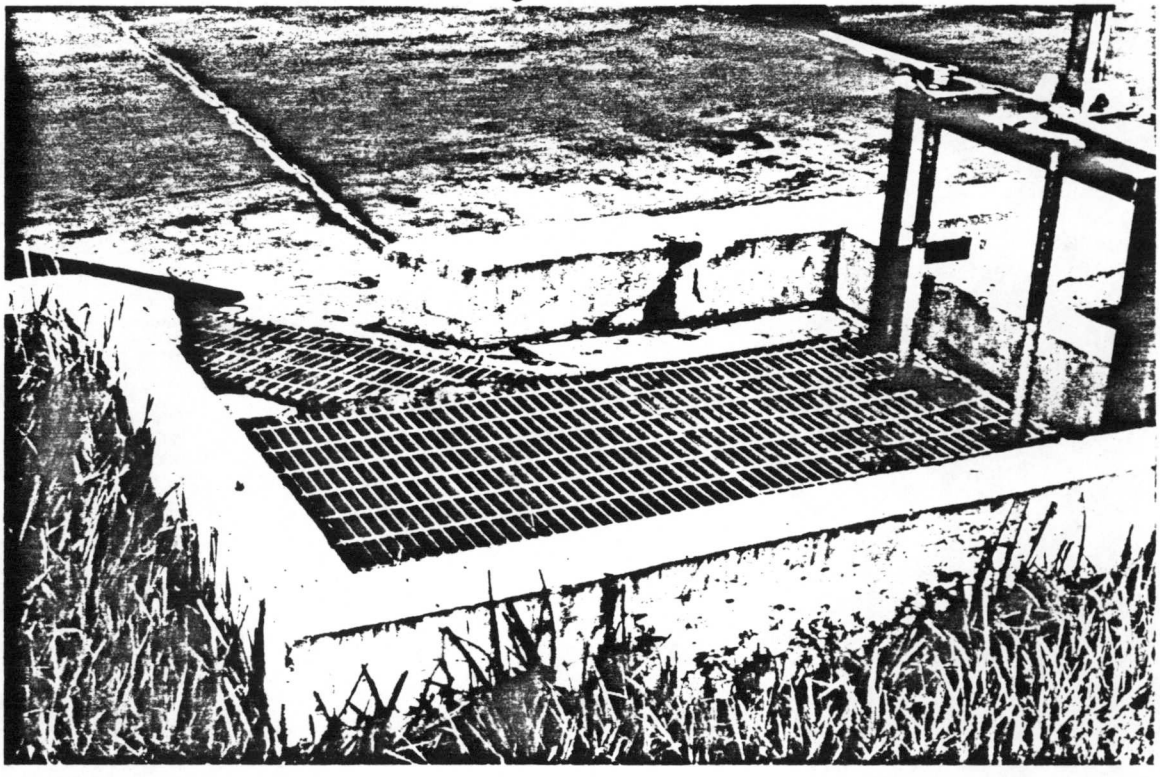
CC. The closest community is to the north of the site, approximately 1000 ft (300 m). Maintenance building is in the foreground.



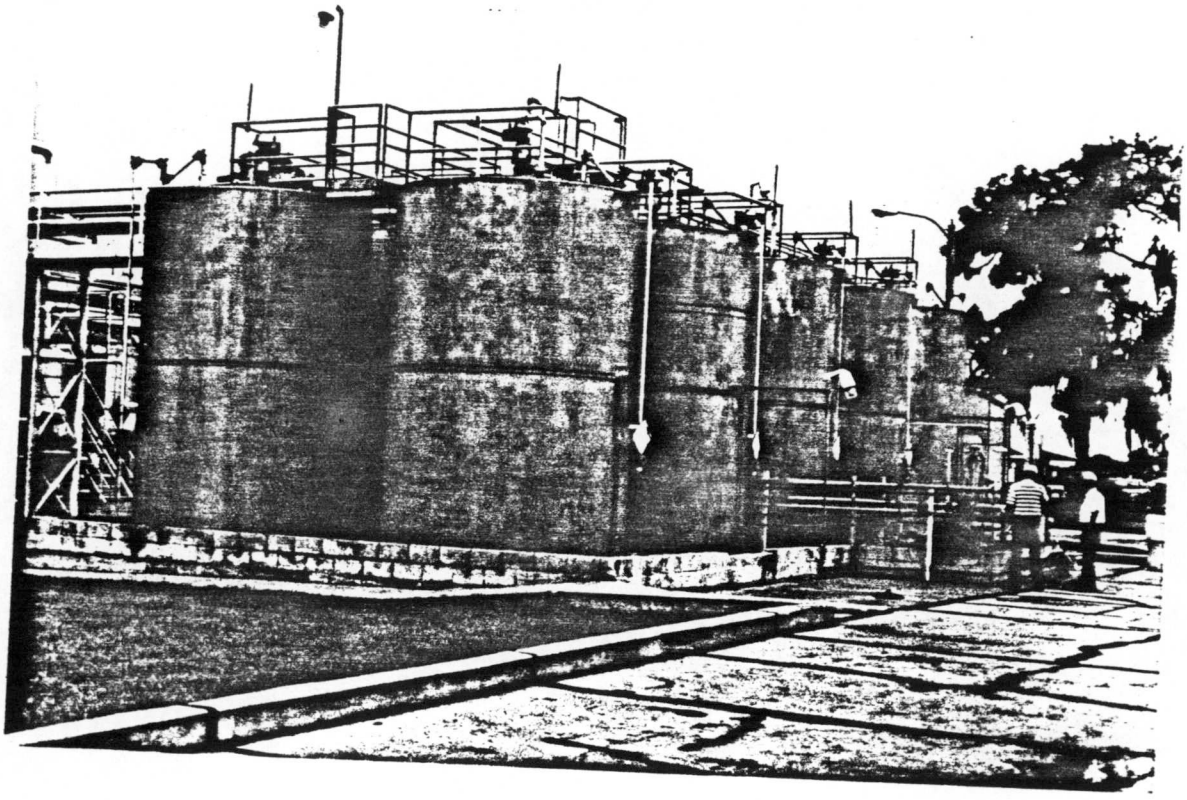
DD. East sump in process area (SWMU No. 7). Typical facility sump.



EE. Sump in the product storage area.



FF. Driveway runoff collection sump on south edge of the driveway.



A.1 View looking west at the product storage area. One tank is used to store freon wash water.

LAIDLAW ENVIRONMENTAL SERVICES

Resource Recovery

VIA CERTIFIED MAIL

August 9, 1991

D.E.R.

AUG 12 1991

SOUTHWEST DISTRICT
TAMPA

James H. Scarbrough, P. E., Chief
RCRA and Federal Facilities Branch
Waste Management Division
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N. E.
Atlanta, Georgia 30365

RE: RCRA Facility Assessment Report
Laidlaw Environmental Services of Bartow, FLD980729610

Dear Mr. Scarbrough:

We have reviewed the report referenced above, and have the following comments:

1. The center trench of the drum storage building referenced on page 44 only has one sump, at the East end of the building.

2. The report states that releases to the atmosphere were cited by FDER in May, 1990, (pages 27 & 53). caused by improper manhole covers. The report should delete all references to the 1990 releases, since this was erroneously cited by FDER and was later withdrawm. While the manholes were not constructed as originally designed, there was no evidence that the covers, as installed, caused any release into the air.

3. Storage tank vents referenced on page 53 are not subject to 40 CFR Subpart AA (process vents) requirements, as defined in 40 CFR 264.1030. Subpart BB information was provided to USEPA, Region IV, on December 14, 1990.

4. Intermediate product storage tanks are not subject to either Subpart AA or Subpart BB requirements, since the equipment neither contains nor contacts hazardous waste (page 55). However, Subpart BB information was provided to USEPA, Region IV, on December 14, 1990 (page 58).

Laidlaw Environmental Services of Bartow, Inc.
170 Bartow Municipal Airport Bartow, Florida 33830-9504 Phone 813.533.6111 Fax 813.533.5152

5. Process vent emissions and leak detection information was provided to USEPA, Region IV, on December 14, 1990.

6. The description of the paint can crushing operation (page 59) should reference that after the cans are emptied and crushed, they are coated with dry Portland cement to stabilize any remaining liquids prior to disposal.

7. The description of the laboratory fume hood and drain tank (pages 60 & 61) mentions that lab wastes are poured into covered five-gallon jugs, and not the sink. The polypropylene tank outside was installed as an extra measure of environmental security in the sewer system, and has never been used as a storage tank. If the tank is structurally sound, the composition of the material inside does not matter. Therefore, we propose to test the integrity of the tank only, and not the contents. If the tank proves to be sound, we will remove it from the sewer line to avoid such concerns in the future.

8. Product storage tanks are not subject to Subpart AA or Subpart BB requirements, since they neither contain nor contact hazardous waste (page 67). However, Subpart BB information was provided to USEPA, Region IV, on December 14, 1990.

We request that these corrections be made to the RFA report in order that it may more accurately reflect operations at the Bartow facility.

Sincerely,

Steven J. Taylor

Steven J. Taylor
Safety and Compliance Manager

cc: Paul Manak, LES, Bartow
Ashley Chadwick, LES, Antioch
Barbara Hamilton, LES, Columbia
Satish Kastury, FDER, Tallahassee
Victor San Agustin, FDER, Tampa

1534A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

4WD-RCRAFFB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JUL 17 1991

Mr. Steven J. Taylor
Safety and Compliance Manager
Laidlaw Environmental Services of Bartow
170 Bartow Municipal Airport
Bartow, Florida 33830-9504

D. E. R.

JUL 22 1991

SOUTHWEST DISTRICT
TAMPA

RE: RCRA Facility Assessment Report
Laidlaw Environmental Services of Bartow
Bartow, Florida
EPA I.D. Number FLD 980 729 610

Dear Mr. Taylor:

The Interim Final Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) report for Laidlaw Environmental Services of Bartow, Florida has been completed and is being forwarded to you and the Florida Department of Environmental Regulation (FDER) for review and comment prior to finalization. The findings of the Visual Site Inspection (VSI) conducted on May 20, 1991, are incorporated in this report and recommendations are made regarding the need for further investigation of solid waste management units (SWMUs) at the facility.

Please review this document with particular emphasis on the completeness and accuracy regarding your particular facility. Any corrections, questions or concerns that you or FDER may have will be considered prior to our finalization of the document. Written comments submitted to us within fifteen (15) working days of your receipt of this letter will be considered for inclusion in the report and in our determination as to what further investigations are necessary at the site.

If you have any questions regarding this matter, please call Ms. Susan Zazzali, of my staff, at (404) 347-3433.

Sincerely yours,

James H. Scarbrough, P.E., Chief
RCRA & Federal Facilities Branch
Waste Management Division

Enclosure

cc: Satish Kastury, FDER, Tallahassee (w/enclosure)
Victor San Agustin, FDER, Tampa (w/enclosure)

Kearney/Centaur Division
A.T. Kearney, Inc.
1100 Abernathy Road, Suite 900
Atlanta, Georgia 30328-5603
404 393 9900
Facsimile 404 396 3091

Management Consultants

ATKEARNEY

May 10, 1991

Ms. Rowena Sheffield
Regional Project Officer
Environmental Protection Agency
Region IV
345 Courtland Avenue, NE
Atlanta, Georgia 30365

Reference: EPA Contract No. 68-W9-0040; Work Assignment No. R04-16-04; Laidlaw Environmental Services, Bartow, Florida; EPA I.D. No. FLD980729610; VSI Notification Letter Deliverable

Dear Ms. Sheffield:

Enclosed please find a letter prepared so that it may be transferred to EPA letterhead, dated, signed and sent to Laidlaw Environmental Services of Bartow, Florida to notify them of the upcoming Visual Site Inspection (VSI). This work will be performed by A.T. Kearney under the above-referenced contract. The VSI is presently scheduled for May 20-21, 1991. The enclosed notification letter includes a tentative list of Solid Waste Management Units (SWMUs) identified in the PR, a VSI agenda, and a list of additional information needs which will be discussed during the VSI.

Please call me if you have any questions or contact Steven Shugart, the Kearney Team Work Assignment Manager at 404-448-5400.

Sincerely,

A. Denise Turner, Ph.D.
Technical Director

Enclosure

cc: S. Zazzali, EPA WAM
J. Griffin, FDER
B. Crawford, FDER, SW District
A. Glazer
L. Poe
S. Shugart
D. Scott (w/o enclosure)
G. Bennsky (w/o enclosure)

Steven J. Taylor
Safety and Compliance Manager
Laidlaw Environmental Services of Bartow, Inc.
170 Bartow Municipal Airport
Bartow, Florida 33830-9504

Reference: EPA Contract No. 68-W9-0040; Work Assignment No. R04-16-04; Bartow, Florida; EPA I.D. No. FLD980729610; VSI Notification Letter and Agenda

Dear Mr. Taylor:

The Environmental Protection Agency Region IV is conducting a RCRA Facility Assessment (RFA) of the Laidlaw Environmental Services of Bartow, Inc. facility in Bartow, Florida on May 21 and 22, 1991. The Hazardous and Solid Waste Amendments of 1984 (HSWA) provide EPA authority under RCRA to require comprehensive corrective actions on releases of hazardous constituents to air, surface water, soil, and groundwater at all facilities which manage hazardous waste. The RFA includes a review of the pertinent files at the Regional and State offices, as well as a Visual Site Inspection (VSI) of the facility, and, if necessary, a sampling visit.

The objectives of the VSI are to identify all Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) located at the facility in order to determine their potential for past or ongoing releases of hazardous constituents. The VSI will be conducted by an EPA contractor under the above-referenced contract.

Attachment A is a tentative agenda and inspection plan for the VSI. The agenda also includes a list of the potential SWMUs identified from the file material during the preliminary review. Attachment B is a summary of information needed in order to fill in information gaps which have been identified to date. These attachments will be reviewed with facility personnel at the beginning of the VSI in order to facilitate the actual inspection. At that time the VSI schedule will be adjusted as needed to allow a complete, thorough and expeditious inspection of all current and past SWMUs, and a review of current waste management practices at the facility. The inspection will encompass all current and past waste handling, storage, treatment, staging, transfer, and disposal areas including both indoor and outdoor units.

During the VSI, photographs will be taken to document the condition and location of all SWMUs and AOCs identified during the VSI, and facility waste management practices in general.

In preparation for the VSI, the contractor is required to identify any potentially hazardous conditions likely to be encountered during the VSI, and if necessary, prepare a safety plan to deal with anticipated hazards. The contractor will contact you prior to the VSI in order to obtain specific information on health and safety requirements at your facility, and specific information on the materials handled there.

The VSI will be conducted by two technical representatives from the A.T. Kearney Team. Personnel from state and federal agencies may also join the VSI.

If you have any questions concerning the VSI, please contact the EPA Work Assignment Manager, Susan A. Zazzali, who can be reached at 404/347-3433.

Sincerely,

Doug McCurry
Chief/Waste Management Division

Enclosure

cc: R. Sheffield, EPA Region IV
S. Zazzali, EPA WAM, EPA Region IV
J. Griffin, FDER
B. Crawford, FDER, SW District
D. Turner, A.T. Kearney
A. Glazer, A.T. Kearney
L. Poe, A.T. Kearney

ATTACHMENT A

PROPOSED RCRA VISUAL SITE INSPECTION AGENDA

Facility:	Laidlaw Environmental Services
EPA ID No.:	FLD980729610
Facility Contact:	Steven J. Taylor
Date of Inspection:	May 20-21, 1991
Inspection Team:	Steven L. Shugart, P.G. Lynne J. France, P.G.

OBJECTIVES OF VISUAL SITE INSPECTION

The Hazardous and Solid Waste Amendments (HSWA) of 1984 broadened EPA's authority under RCRA to require corrective action for releases of hazardous wastes, and solid wastes containing hazardous constituents at facilities which manage hazardous wastes. This corrective action authority extends to all Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) which are found at a facility. The first phase of the program is the performance of a RCRA Facility Assessment (RFA). The RFA process consists of a number of steps, including a Preliminary Review (PR) of all available file information, a Visual Site Inspection (VSI) of the facility, and if deemed necessary, a Sampling Visit. A PR of this facility has been conducted and it has been determined that a VSI is necessary. The purpose of the VSI is:

1. To collect all available, relevant information on solid waste management practices that have been used, or are currently in use at the facility;

2. To gain first-hand information with regard to the identification, location, construction, function and method of operation of each SWMU identified in the PR, and any other SWMUs located during the course of the VSI;

3. To validate the information obtained during the PR phase;

4. To determine if additional SWMUs or AOCs are located on the site;

5. To identify potential sampling points for possible future sampling activities;

6. To review the site information and collect additional information, and to address the information needs found in Attachment B; and,

7. To make a photographic record of the SWMUs and AOCs, and the current waste management practices at the facility.

INSPECTION PLAN AND SCHEDULE

EPA's contractor, A.T. Kearney, will send a two-person field team to perform the VSI. Observers from EPA Region IV, and the FDER may also participate in the inspection. It is expected that the inspection will take one day to perform, however, the VSI team is prepared to extend the VSI to May 21, 1991, if necessary.

The field team will inspect all past and current SWMUs and AOCs, and all hazardous waste handling, storage, treatment, and disposal areas on the site. Both indoor and outdoor units will be inspected. Production and product storage areas will also be inspected in order to acquire a complete understanding of the facility processes, waste flow, and waste management practices. The team will also identify, inspect, and document potential pathways for the release of hazardous constituents or wastes to the environment. Facility staff will be interviewed to develop a better understanding of past and current waste management practices, and the local environment (particularly, geological and hydrogeological information requested in Attachment B). At this time the facility may present any additional data which they believe may be germane.

The rationale for the inspection is to allow the team to trace waste flow at the facility from the point(s) of generation to its ultimate disposal. In doing this, all SWMUs will be identified, located, and described in sufficient detail to allow a determination to be made as to whether they are currently, or have in the past, released hazardous constituents or wastes to the environment.

The schedule on the next page is based on the initial PR and is intended to allow for as thorough an inspection as possible. Some adjustments may be necessary in order to accommodate the facility staff, or because of unforeseen conditions, or to enhance the overall efficiency of the inspection. The schedule will be reviewed during the introductory meeting, and adjusted at that time. The VSI team will make every reasonable effort to adjust to the facility's normal operating schedule.

PROPOSED VSI SCHEDULE

May 20, 1991

TIME	ACTIVITY
8:30 - 8:45	Introductory meeting with facility representatives; discuss agenda, safety and health considerations, information needs, and transportation arrangements;
8:45 - 12:00	Detailed discussion of information needs, past and present facility operations, waste streams, and waste management practices. Identify any SWMUs and AOCs not in tentative list, resolve any other problems with SWMUs and AOCs;
12:00 - 1:00	Lunch Break
1:00 - 4:00	Begin facility tour. Inspect SWMUs 1 through 4.
4:00 - 5:00	Closeout meeting with facility representatives. Discuss additional information needs generated by VSI. Obtain copies of any facility offered information.
May 21, 1991	Reserved, if additional time is needed. To be determined by VSI Team Leader.

TABLE 1
POTENTIAL SWMUs and AOCs

SWMU No.	SWMU NAME
1	T-111 Sludge Mix Tank
2	T-112 Fuel Blend Tank
3	T-114 Sludge Mix Tank
4	Shredder and associated piping

ATTACHMENT B
RFA INFORMATION NEEDS

1. Provide description of waste management practices and dates implemented.

2. Provide type and volume of waste generated.

3. Provide most recent biennial report.

4. Provide surrounding land use information (e.g., distance to population centers).

5. Provide any available site-specific geologic or hydrogeolgic information (e.g., boring logs).

6. Provide description of drum storage areas:
   - Location
   - Type and volume of waste
   - Secondary containment
   - Frequency of pick-up for disposal
   - Disposal method

7. For each accumulation area, provide:
   - Description
   - How long was waste normally stored
   - Secondary containment
   - Type and number of containers
   - Type waste generated
   - Waste management procedures
   - Spill/release history

8. Provide any sampling reports of analysis performed on ground water, waste streams or soil.

9. For each SWMU listed, please give:
   - Date unit began operating
   - Date operations ceased (if applicable)
   - Dimensions of unit
   - Location of unit in facility
   - Description of waste handled
   - Unit function
   - Material of construction
   - Release controls
   - History of release

10. Provide a site map of suitable scale to show boundaries of all contiguous propoerty which can be used to show the location of the SWMUs and AOCs on the property.

11. Provide copies of all current Federal and State permits granted.

12. Identify souces of drinking water in the area. Identify source of the facility drinking and process water.

13. Provide a historical overview of the facility including start-up date, former owners, former site uses, manufacturing processes used, wastes generated, and existing buildings and/or structures.

14. Provide a description of the facility domestic refuse and sanitary waste handling procedures.

15. Provide a history of pollutant spills/releases for the facility. Information should include:

- Date of release
- Quantity of release or extent of release
- Location
- Description of product
- Corrective action taken
- Soil/water analysis results