July 14, 1999

Mr. Lee C. Hoefert, P.E. Solid Waste Section Florida Department of Environmental Protection P.O. Box 15425 West Palm Beach, Fl. 33416

Re: Magnum Environmental Services, Inc.

Broward County

HW – Used Oil Processor Permit No. HO06-307677 RECEIVED

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PERTOF ENVIRONMENCH

Dear Mr. Hoefert:

As requested in your letter of July 2, 1999, attached please find our response to your request for information. Your questions are noted in *italics* and our responses follow in normal print. (Complete indicates that the item was adequately addressed in the previous response.)

- 1. Complete
- 2. Please submit a detailed engineering plan and report. The Engineering plan and report was not included in Enclosure 1 as stated in the letter of Application. In the report please provide a list of solid wastes expected to be received and their sources, qualities, and constituents pursuant to Rule 62-700.700(2)(a). Also in the report please describe the process and include a sample process flow diagram. Describe the operations and functions of all processing equipment, including leachate controls and storage capacity, pursuant to Rule 62-701.700(2)(b). A professional Engineer must certify the plan.
 - A. Engineering Report and plan
 - 1. See Attachments 1-4.
 - B. List of solid wastes which are expected to be received and their sources, quantities, and constituents pursuant to Rule 62-700.700(2)(a).
 - 1. Products: Absorbents, Oil Dry, Sludges, and Petroleum Contaminated Soils.
 - 2. Sources: Industrial or Automotive Facilities.
 - 3. Quantities: 1500 Tons Per Year.
 - C. See Attached Flow Diagram:



July 14, 1999 Magnum Environmental Services, Inc. Broward County Page 2 of 4

D. Leachate Control:

1. All processing will be within in sealed and lined containers. No leachate will be in contact with soil during the process.

E. Storage Capacity:

1. 4-20 yard sealed roll-off boxes.

3. Complete

4. Please provide a list of disposal sites for the stabilized sludges, testing to be preformed, and testing frequency. The recent submittal did not include testing information. Also, the Chambers landfill is not in West Palm Beach, please clarify this statement.

A. List of Disposal Sites:

- 1. Sludge Disposal:
 - a. Waste Management Okeechobee Landfill 10800 N.E. 128th Avenue Okeechobee, Fl. 34972 (941) 357-0111
 - b. Waste Management Central Sanitary Landfill 3000 N. W. 48th Street Pompano Beach, Fl. 33373 (954) 977-9551
 - c. Magnum Environmental Services
 Thermal Treatment Facility
 9401 Fairgrounds Road
 West Palm Beach, Fl. 33411
 (561) 791-2006



July 14, 1999 Magnum Environmental Services, Inc. Broward County Page 3 of 4

- 2. Oil Filter Disposal (Smelter)
 - a. U.S. Foundry
 8351 N. W. 93rd St.
 Medley, Fl. 33166
 (305) 885-0301
- B. Testing to be preformed and testing frequency:
 - 1. See Attachments 3 and 4.
- 5. Complete

Closure Plan Comments:

- 1. Complete
- 2. Complete
- 3. The source of the estimates are missing (e.g. quotes, estimating tables, etc.)
 - A. See Attached Invoices for the following:
 - 1. Sludge Disposal:
 - a. Waste Management, Okeechobee Landfill, Inc.
 - b. Central Sanitary Landfill & Recycling Inc.
 - 2. Hauling:
 - a. Tru Trucking, Inc.
 - B. Backhoe:
 - 1. Estimate from Means "Building Construction Cost Data", adjusted for local conditions.



July 14, 1999 Magnum Environmental Services, Inc. Broward County Page 4 of 4

- 4. After approval of the closure cost estimate, Department staff will forward the approved estimate to the Department's financial liaison in Tallahassee. Please update the financial mechanism to reflect changes in cost for closure. However, it is better to wait until the Department approves the closure cost estimate before submitting the financial instrument to Tallahassee.
 - A. Response not required until after approval of cost for closure.

Should you have any additional questions, or if we can be of assistance, please call at your earliest convenience.

Sincerely yours,

CUNNINGHAM & DURRANCE Consulting Engineers, Inc.

Stuart H. Cunningham, PE, PSM

cc: Osiris Ramos w/Attachments

SHC/shc 99-055(99055-7-14RESPONSE)

ATTACHMENT

1



Attachment 1

Facility Description

Magnum Environmental Services, inc. (Magnum) is a full service environmental redemption company specializing in a complete array if extraction, decontamination, transporter, and treatment services. The Pompano Beach facility is a registered used oil transporter, transfer facility, processor and marketer with the Florida Department of Environmental Protection (FDEP). In addition, the Pompano Beach facility is a registered filter transporter, transfer facility, and processor with FDEP.

Magnum manages a wide variety of wastes at this facility. The majority of the waste is petroleum related. Used oil constitutes the majority of the waste entering Magnum. Used oil includes used automotive oil, used industrial oil. and mixed used oil as defined by the State of Florida. Magnum also handles automotive, industrial, and mixed oily waters. The Pompano Beach facility is also listed as a Public Used Oil facility with the FDEP. Another significant part of the Magnum operation is the filter processing in Pompano Beach facility. Magnum receives both crushed and uncrushed oil filters. The used oil is treated to remove the water and processed into specification fuel that is marketed. Oily waters are subjected to industrial wastewater pre-treatment prior to discharge to a Publicly Owned Treatment Works (POTW). The oil filters are processed and then shipped to a smelter.

Another major category of wastes are fuels which include combustible fuels, flammable fuels, and petroleum contact water (PCW). The fuels are used to make the specification fuel which is marketed.

Magnum also treats various wastewater streams including petroleum contaminated groundwater, processing wastewater, and stormwater. The wastewater is treated through the use of Magnum's industrial pre-treatment plant prior to discharge to the sewer.

Antifreeze is picked up and transported to the Pompano Beach facility where it is recycled. Other non-petroleum related and non-regulated industrial liquids and solids are also handled by Magnum. The industrial solids are profiled, sampled, and disposed of in a landfill.



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Petroleum contaminated soils and sludges are another waste source. They are either treated in a licensed thermal facility or landfill depending on the analytical data. Debris including personal protective equipment (PPE) is also handled by Magnum and is usally deposited in a landfill. Magnum also has a license issued by the Broward County Department of Natural Resources Protection (DNRP) to haul domestic sludge.

Magnum is also a hazardous waste transporter and the Pompano Beach facility is an approved hazardous waste transfer facility. Hazardous wastes are stored at the facility for less then ten days and then transported to an approved hazardous waste treatment, storage, and disposal facility (TSDF).

Magnum is also an FDEP-approved abandoned drum (less than 10 drums) contractor.

The Pompano Beach facility has an industrial wastewater pre-treatment plant. Wastewater unit operations include oil/water separation, coagulation with aluminum sulfate, and metals precipitation with sodium hydroxide. Soil/liquid separation is accomplished by treatment of the wastewater with a rotary vacuum filter which filters out the solid particles to micron and continually producing a dry filter cake. The effluent from the vacuum filter is then treated by air sparging for phenol and BTEX removal and activated carbon polishing, if required, prior to discharge to the POTW. The filter cake is place in the roll-off, sampled, and is disposed of in a landfill.

ATTACHMENT

2



Attachment 2

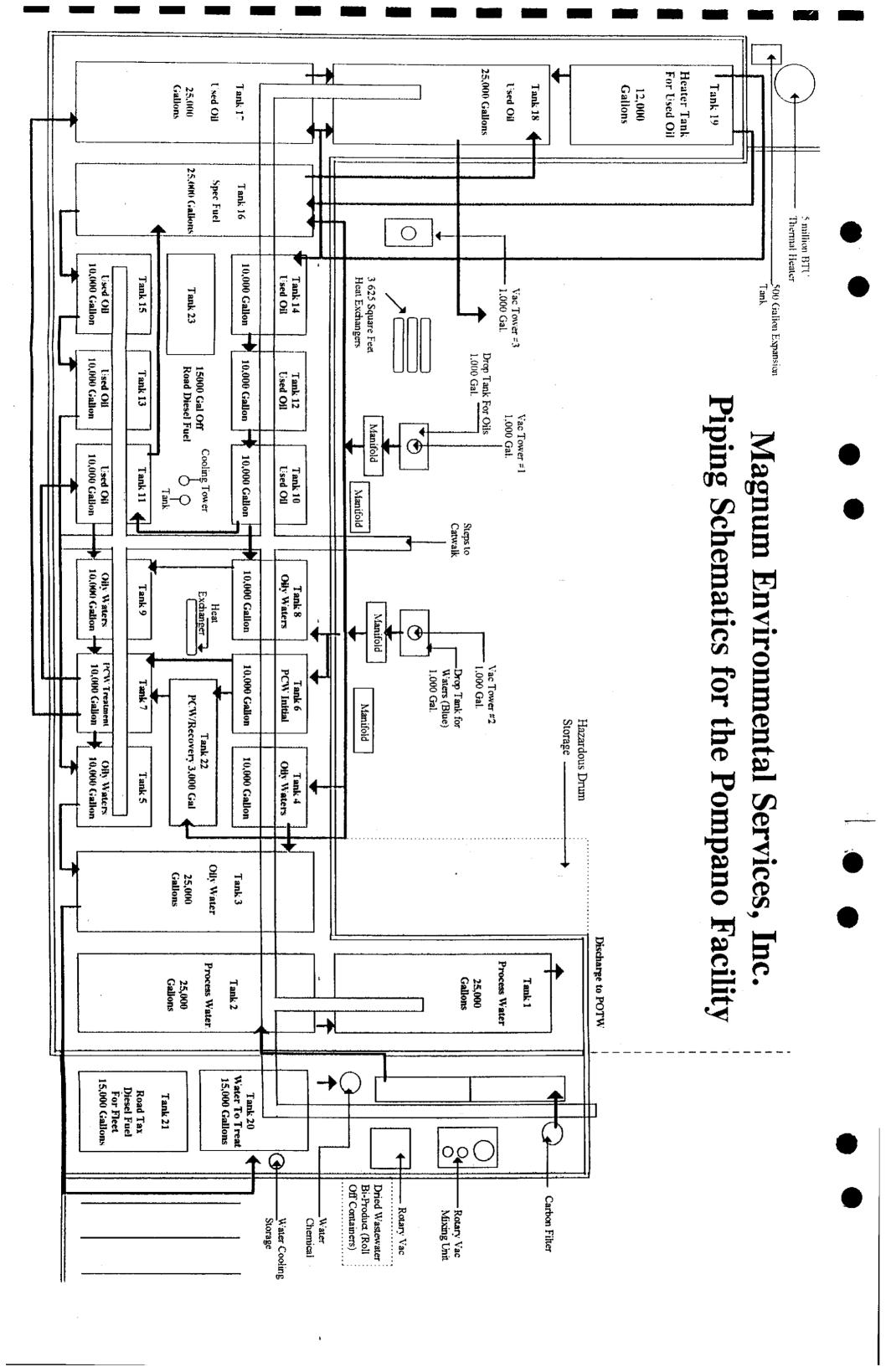
Process Description

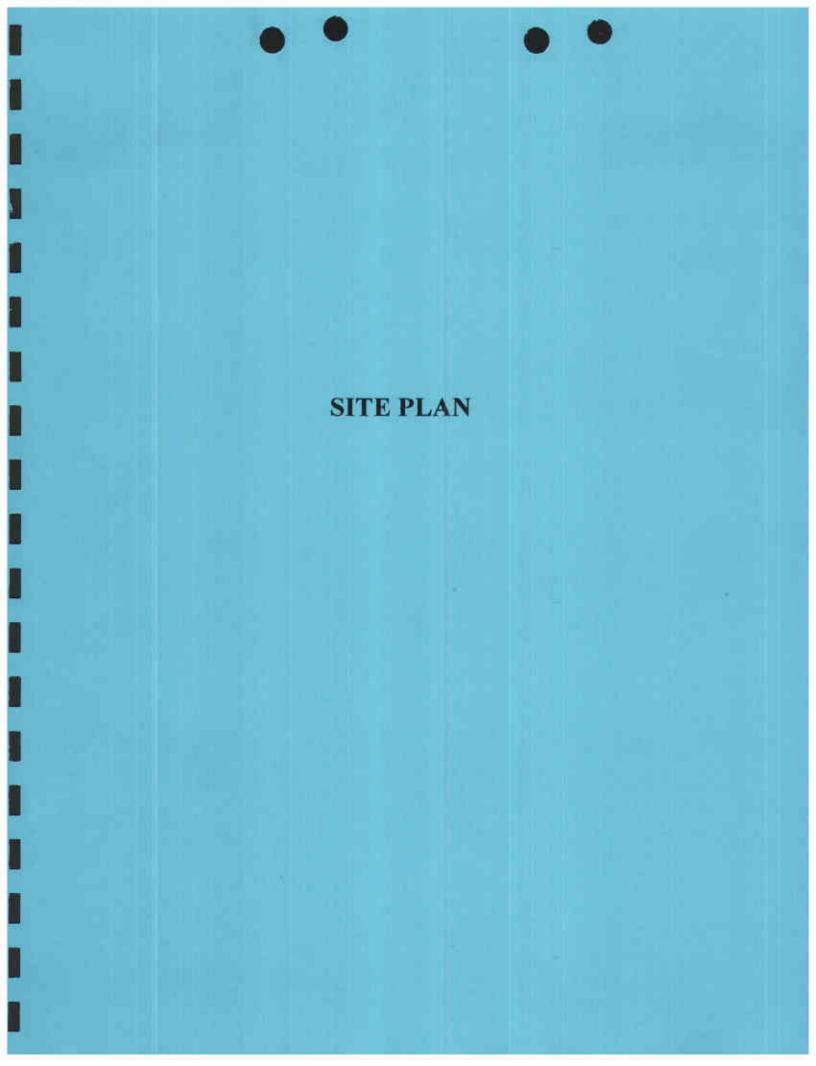
All petroleum fuel and oils are first checked in the field by the use of halogen screening. Upon arrival to Magnum and prior to offloading, materials are checked for percent water, flash, and halogen content. Similar materials are stored together for blending and further processing within Magnum's tank farm. Materials are then filtered to remove solids and then treated to remove excess water by removal of chemicals and heat to break the emulsions. Removed by-products are treated in-house before final disposal. The processed oil is stored and tested for on-specification parameters. After receipt of the analytical data from a certified laboratory, the specification fuel is marketed to licensed asphalt plants, soil burning facilities, and phosphate mining facilities.

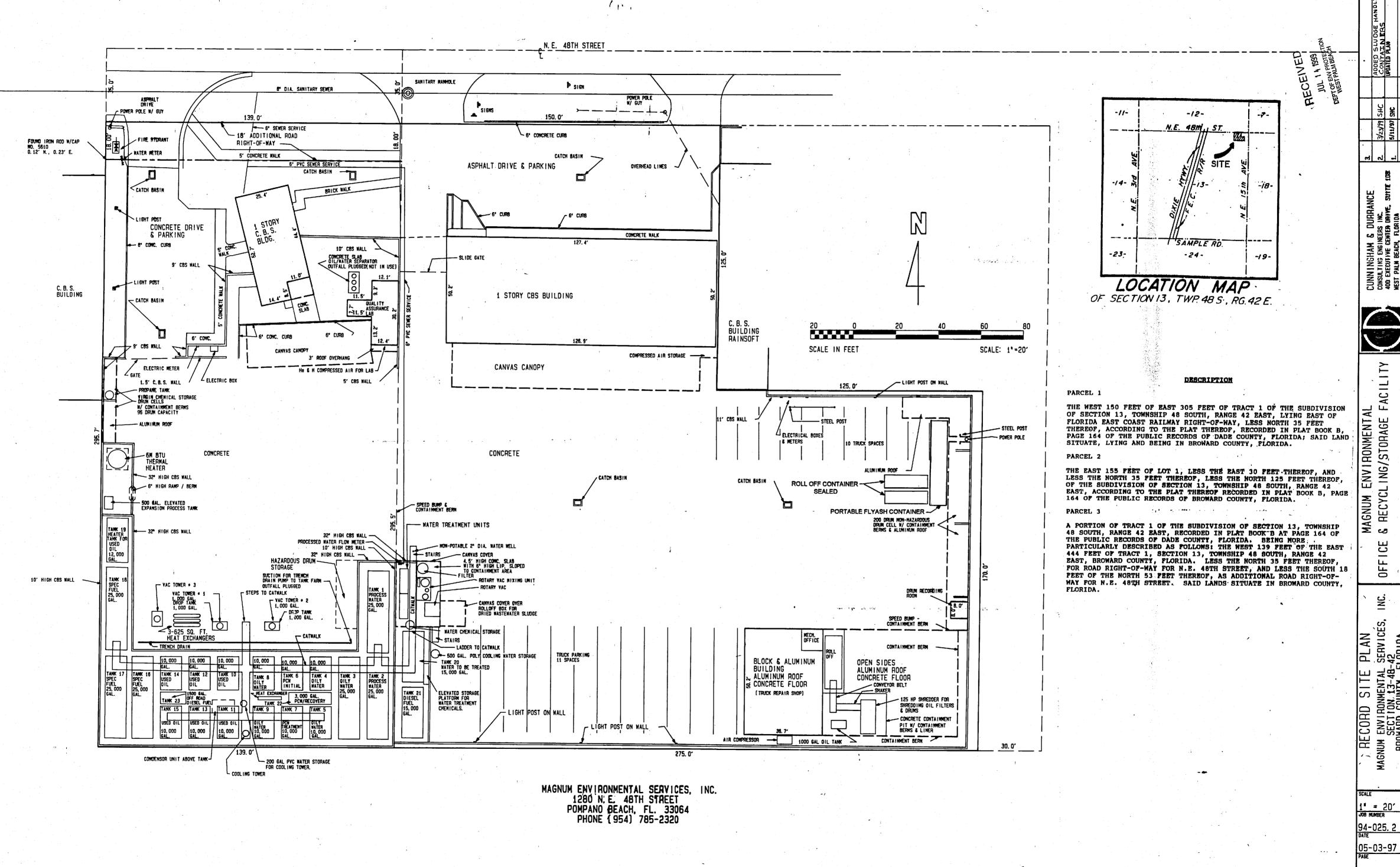
A piping schematic is presented as part of this attachment.

A detailed site map, drawn to scale, is attached above.

PIPING SCHEMATIC







CUNNINGHAM & DURRANCE CONSULTING ENGINEERS INC. 400 EXECUTIVE CENTER DRIVE, SUTTE MEST PALM BEACH, FLORIDA

MAGNUM ENVIRONMENTAL SERVIC SECTION, 13-48-42 BROWARD COUNTY, FLORIDA

94-025. 2

1 OF 1

ATTACHMENT



Attachment 3

Analysis Plan

Used Oil Operating Procedures and Waste Analysis Plan per 40 CFR 279

A. All used oil, oily waste and oily water sources must:

- 1- Correspond with the definition of used oil ("any oil that has been refined from or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities").
- 2- Not have been mixed with hazardous waste as defined in 40 CFR 261 Subpart D.

OILY WASTE AS DEFINED BY FAC 62.710.200 mean those materials that are mixed with used oil and have become separated from that used oil. Oily waste also mean materials, including wastewater, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents which have come into contact with, and have been containment by, used oil and may be appropriately tested and discarded in a manner which is in compliance with other state and local requirements.

NOTE: Mixtures of used oil and waste that are hazardous solely for the characteristic of ignitability may be managed as used oil provided the generator can produce analytical results to demonstrate that the mixture has a flashpoint > 140 degrees F.

B. Driver Responsibilities

The driver/operator of a Magnum vehicle used in the transport of used oil each at pump out must:

- 1- Verify that the material being removed conforms with the physical properties of used oil or contains an oily sheen.
- 2- Identify the used oil category as industrial, automotive or mixed as described by State of Florida regulations.
- 3- Preformed a halogen screening with the electronic sniffer (TIF instruments Model 8800) and when necessary, a Dexsil Q1000 to determine if the used oil contained chlorinated compounds.



- a) Results of the halogen screen will be recorded on the shipping document.
- b) Any waste streams that yield a positive result from the electronic sniffer will be checked using the Dexsil test. Any shipments yielding a halogen reading greater than 1000 ppm using the Dexsil screening will be presumed to have been mixed with hazardous waste and will remain on site for further waste characterization. The generator will be notified of our findings.

C. Facility Requirements

Off Loading Procedures:

Each shipment of used oil and oily waters received at Magnum' facility is sampled using a tank thief prior to off loading. The sample is checked for halogen content using a Dexsil Q4000, % water by distillation and flashpoint using a closed cup flash tester. Used oils and oily waters are metered into the tank farm and the gallonage is recorded along with the sample data on a facility drop ticket.

Shipments received at the facility that fail the halogen screening are segregated and a sample is drawn using a tank thief or drum coliwasa for shipment to a state certified laboratory. The laboratory first performs a TOX on the sample. Based on the result of this test, additional analytical data including volatiles by EPA Methods 8240 or 8260 and PCB's may be required.

- 1) If the laboratory TOX is < 1000 ppm the analysis is attached to the drop ticket and the load is processed at Magnum's facility.
- 2) If the laboratory analysis reveals a level of TOX between 1000 ppm and 4000 ppm, the lab analyzes the material for chlorinated hydrocarbons and PCB. The shipment manifest are reviewed for source indicators and the oil recovery managers may choose to visit suspect sites and interview the generators. The information gathered and the analytical results are used to make waste determination regarding the RCRA classification of the used oils and the load is handled in accordance with all federal, state and local regulations. A generator list is complied and drivers are notified to use caution at these facilities.
- 3) If the laboratory analysis reveals a level of TOX >4000 ppm, the laboratory is instructed to run analysis for the F listed solvents, the eight RCRA metals and a flashpoint. The load will be profiled to a hazardous waste facility and upon acceptance the material will be transported to a designated TSDF in accordance with



July 12,1999 Page 3

40 CFR subtitle C regulations. A list of the generators for that load is complied and the oil recovery manager visits each site to inform them of the potential proplem associated with mixing hazardous waste with used oil. In addition, the drivers are notified not to service these stops without fist obtaining a sample of the material for future analysis if required.

Shipments brought to Magnum Environmental Services by other registered used oil transporters are subject to the sampling procedure specified above. Should the load fail any portion of the screening criteria, the entire shipment is rejected.

D. Oily waste

It is preferred policy that the client provide analytical results for any used oil streams which contain oily wastes which have already been separated from the used oil however, Magnum recognizes that storage patterns and the use of high power vacuum equipment does not always lead recognition of oily waste contained or confined by used oil. Therefore, when it is not practical to distinguish a used oil waste stream from the oily waste contained, oily waste will be treated as part as the used oil shipment and segregation will take place at the facility as part of the process.

These oily waste are divided into two distinct categories:

- Category A includes heel from offloading, primary phase separation at the tower and residue from the truck decon procedures.
- Category B is limited to tank bottom sludges from tank cleaning preformed on the process tanks as part of facility maintenance.

The two categories of materials are stored and tested seperately.

E. Materials Storage

All materials are stored in aboveground tanks registered with FDRP, where required by FAC 62-762, or DOT-approved shipping containers. The tanks are labeled USED OIL and have the appropriate hazard class diamond affixed. Drums are labeled with a noon-hazardous shipping labels that contain generated information, data and material description.

F. On Specification Claim

Used oil fuels are processed at Magnum's facility using chemical and physical means to obtain an on-specification used oil fuel. Sampling and analysis preformed by a state certified laboratory are used to verify the on spec calm. The used oil fuel is produced in batches. The physical properties of the materials are monitored in-house using an on site lab however, once a load is accumulated in a 25,000 gallon storage tank, the representative sample of the material is obtained using a tank thief and the sample is sent to a state certified laboratory for testing.



July 12,1999 Page 4

Analytical Parameters: Parameter	Method
Total Halogen, ppm	s.w. 9076
Organic Halogen, ppm	UOP-588
Inorganic Halogen, ppm	UOP-588
Gravity API @ 60 F.	D-287
Heat of Combustion, BTU/Gallon	D-240
Viscosity SUS @ 100 F	D-445
Flash Point, F.	s.w. 1010
Ash, Wt. %	D-482
PCB's, ppm	s.w.8080
Sulfur, Wt. %	D-4294
Total Arsenic, ppm	s.w. 3050/7061
Total Cadmium, ppm	s.w. 3050/7130
Total Chromium, ppm	s.w. 3050/7190
Total Lead, ppm	s.w. 3050/7420

The analytical data obtained is used to determine the quality of the 25,000 gallon batch and to satisfy the on-specification fuel calm as described in 40 CFR 279.11. Shipments of each batch are recorded and copies of the analysis are maintained on site for a minimum of three years.

ATTACHMENT

4



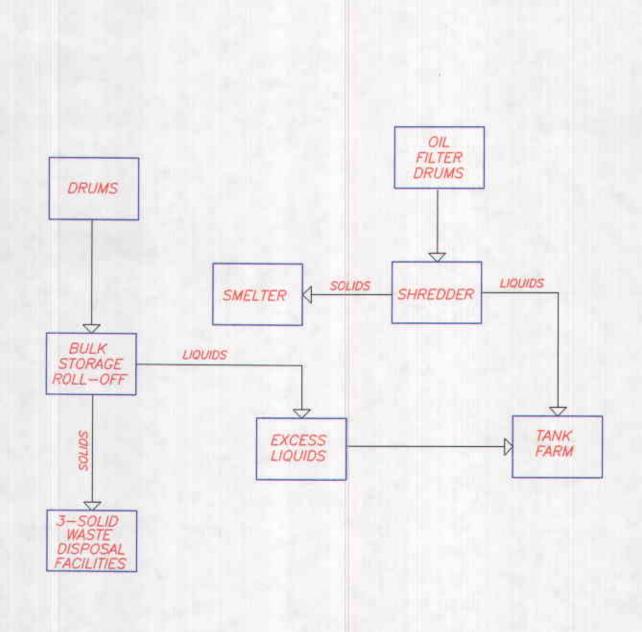
Attachment 4

Sludge, Residue, and Byproduct Management Description

All residue resulting from hauling, offloading and treatment shall be stored in drums or appropriate containers and tested prior to shipment or disposal. Testing shall include, at a minimum, TCLP 8 RCRA metals, TCLP Volatilizes, TRPH, Flashpoint, and TOX. Other test parameters may be performed when deemed appropriate. Once the hazard class has been determine using analytical testing, the residues will be shipped from Magnum to a properly license facility.

99-055(attachments)

PROCESS FLOW DIAGRAM



PRODUCTS ARE TRANSPORTED IN DRUMS AND PLACED IN SEALED ROLL—OFFS. EXCESS LIQUIDS ARE THEN REMOVED VIA A VACUUM PROCESS. SOLIDS ARE DISPOSED OF IN LICENSED SOLID WASTE DISPOSAL FACILITY. EXCESS LIQUIDS ARE SENT TO THE TANK FARM WHERE THEY ARE PROCESSED. SEE ATTACHMENTS 1—4 FOR DESCRIPTION OF THE PROCESS.



PROCESS FLOW DIAGRAM

CLIENT: MAI	GNUM EN	VIROMENTA	VL.		
PROJECT	POMPAN	D BEACH			
DATE: 07/14/99	N.T.S.	JOB No. 99-055	PAGE:		

COST ESTIMATE BACK-UP INFORMATION



OKEECHOBEE LANDFILL, INC.

A WASTE MANAGEMENT COMPANY

	460-1348 MAGNUM ENVIRONMENTAL SVCS. 5690 W. MIDWAY ROAD X	6/15/ 9 9		Invoid	e # 0046	0007555
	FT. PIERCE FL 34981					•
Date	Service Description	Ticket 910769	Truck 40	Qty. 12.15	Pric e 32.00	Extended 388.80
3/02/99 3/05/99	SLUDGE GVW 68520 TW 44220 SLUDGE	911399	42	7.29	32.00	233.28
5/05/99	GVW 57740 TW 43160 SLUDGE	911423	36	12.99	32.00	415.68
5/05/99	GVW 70340 TW 44360 SLUDGE	911430	42	8.21	32.00	262.72
5/05/99	GVW 59500 TW 43080 SLUDGE	911448	42	2.7 9	32.00	89.28
5/09/99	GVW 46540 TW 40960 SLUDGE	911822	40	12.64	32.00	404.48
5/12/99	GVW 69780 TW 44500 SLUDGE	912508	42	5.98	32.00	191.36
	GVW 55120 TW 43160 Total of current charges		· · · · · · · · · · · · · · · · · · ·		(1.985.60
	intal of current and year	Ina				9.128.32

Balance from previous billing

Payment - Thank you 5/28/99 Payment - Thank you 6/15/99 Payment - Thank you 6/15/99

9547836830

Total Due

REMITTANCE ADDRESS: CHAMBERS WASTE SYSTEMS OF FL 10800 NE 128TH AVENUE OKEECHOBEE, FL 34972

APPROVED 5 1. PROVED_____

Current 1,985.60

5/31/99 3,240.64 4/30/99

3/31/99

2/28/99

1,544.64

3.321.92

2,565.76

\$5,226.24



CENTRAL SANITARY LANDFILL AND RECYCLING CENTER 3000 NW 46TH ST POMPANG BEACH FL 33075-3075

PAGE 1 OF 1

INVOICE

ACCOUNT NUMBER 340340 LX 0006336 INVOICE NUMBER 579-017383 DATE 06/18/99

Tallardidlerdindadidlerdindadidlerdadidlerdidlerdidlerdidlerdid MAGNUM TANK SERVICE 1280 NE 48TH STREET POMPANO BEACH FL 33064-4909

BILLING INQUIRIES: 954/977-9551 SERVICE INQUIRIES: 954/977-9551

DATE	REFERENCE NUMBER	QUANTITY	DESCRIPTION		AMOUNT
06/03 06/15			PREVIOUS BALA PAYMENT RECE BALANCE FORWA	IVĒD	16,655.92 1,476.30CR 15,179.62
06/02 06/03 06/08 06/10 06/11	443281 442702 443882/ 445594 446843 447313 447446	13.88 11.20 6.20 7.04 6.64	C&D MATERIAL CONTAMINATED CONTAMINATED CONTAMINATED CONTAMINATED CONTAMINATED CONTAMINATED	SOIL Rate 30.00 SOIL SOIL	120.00 416.40 336.00 186.00 211.20 199.20 503.70
				TOTAL CURRENT CHARGES PAYMENT DUE IN 10 DAYS	1,972.50
				TOTAL AMOUNT NOW DUE	17,152.12

THANK YOU FOR YOUR PROMPT PAYMENT, FOR INQUIRIES REGARDING YOUR INVOICE, PLEASE CALL OUR BILLING DEPT AT 954/977-9551

ATTN CUSTOMERS: WE ARE CURRENTLY UPGRADING OUR BILLING SYS TEM TO BE Y2K COMPLIANT. YOU WILL NOTICE VARIOUS CHANGES TO FUTURE INVOICES. SHOULD ANY QUESTIONS ARISE, PLEASE CALL US.

Н

FASE RETURN THIS PORTION WITH PAYMENT - DO NOT ATTACH CHECK TO STUB

MAGNUM TANK SERVICE 1280 NE 48TH STREET

POMPANO BEACH FL 33064-4909

CENTRAL SANITARY LANDFILL AND RECYCLING CENTER 3000 NW 48TH ST POMPANO BEACH FL 33073-3075 INVOICE DATE: 06/18/99

CURRENT CHARGES: 1,972.50

TOTAL DUE: 7,152.12

\$

ACCOUNT NUMBER 340349 LX 0006336

INVOICE NUMBER

579-017383

CHECK NUMBER

PLEASE MAKE CHECK PAYABLE TO:

LFS A IPO1 CENTRAL SANITARY LANDFILL AND RECYCLING CENTER 3000 NW 48TH ST

POMPANO BEACH FL 33073-3075

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Invoice

Tru Trucking, Inc.

4966 Homewood Road, West Palm Beach, FL 33415 (561) 697-5134 Fax (561) 471-9181

9547836830 -

Date 5/4/99

. ORDERED	QTY, SHIPPED	DESCRIPTION			ICE	AMOUNT	
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