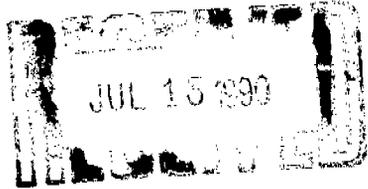


COPY

**SPATCO** environmental



July 11, 1990

RECEIVED  
N.C. Dept. NACD

JUL 18 1990

Winston-Salem  
Regional Office

Mr. David Sams  
N. C. Foam Industries, Inc.  
P. O. Box 1528  
Mount Airy, NC 27030

Re: Tank closure soil samples  
Laboratory analysis results  
N. C. Foam Industries, Inc.  
511 Carter St. Industrial Park  
Mount Airy, NC 27030

Dear Mr. Sams:

On May 29, 1990, SPATCO Environmental excavated and removed two (2) 1,000 ± gallon and one (1) 4,000 ± gallon steel underground storage tanks (USTs) from the site referenced above. The 1,000 ± gallon tanks were currently being used for gasoline storage, and the 4,000 ± gallon tank stored diesel fuel. This letter summarizes the field work on May 29, 1990 and June 26, 1990, and the laboratory results for ten (10) of the soil samples collected from the tank excavation.

Enclosed are the following items:

- 1) A copy of the soil sample laboratory analyses for and chain of custody record for the soil samples collected on May 29, 1990;
- 2) A copy of the soil sample laboratory analyses and chain of custody record for the soil samples collected on June 26, 1990;
- 3) A copy of the Certificate of Tank Disposal;
- 4) Figures 1, 2 and 3.  
Figure 1 - A general site sketch indicating the orientation and locations of the USTs.  
Figure 2 - A general site sketch showing the tank excavation and soil sampling points.  
Figure 3 - A general site sketch indicating the soil remediation excavation and the soil sampling points.

### 1.0 Tank size, integrity and disposal.

Upon excavation, each of the USTs was visually inspected for corrosion, perforations and pitting. The UST #1, a 4,000 ± gallon diesel UST, was observed with slight corrosion and minor pitting, without any obvious perforations. The UST #2, a 1,000 ± gallon gasoline tank, was observed as having corrosion, some pitting and two (2) perforations were observed at the base of the UST. The UST #3, a 1,000 ± gallon gasoline tank, evidenced corrosion with occasional severe pitting. A gasoline odor was also associated with this tank. These tanks were inerted with the proper amount of dry ice and transported to an approved disposal facility.

### 2.0 Soil sampling procedures and OVA evaluation.

On May 29, 1990, seven (7) soil samples were collected from hand auger borings advanced into the native soil beneath the base of the UST tank excavation. The soil sampling locations are shown on Figure 2. The hand auger used to collect samples was thoroughly decontaminated prior to and between each use. Decontamination was accomplished by the following procedure: soap and water wash, tap water rinse, isopropyl alcohol rinse, and a final rinse in distilled water. Each individual soil sample collected was split into duplicates, one half evaluated with an Organic Vapor Analyzer (OVA) for possible hydrocarbon contamination, and the other half placed in a new, clean jar for laboratory analysis, if analysis was deemed necessary. To minimize the risk of accidental contamination, new, disposable latex gloves were worn during each transfer of soil from hand auger to sample jar. The results of soil sample OVA evaluation are given in Table 1.

Table 1 - Soil sampling depths and OVA readings

SAMPLE #	DATE COLLECTED	DEPTH COLLECTED	OVA READING	SENT TO LAB
HB-1-10.0	5-29-90	10.0 ft.	1000 ppm *	No
HB-2-10.0	5-29-90	10.0 ft.	850 ppm	No
HB-3-10.0	5-29-90	10.0 ft.	200 ppm	No
HB-4-12.5	5-29-90	12.5 ft.	380 ppm	No
HB-1-12.5	5-29-90	12.5 ft.	220 ppm	Yes
HB-2-12.5	5-29-90	12.5 ft.	400 ppm	Yes
HB-3-12.5	5-29-90	12.5 ft.	220 ppm	Yes
HB-4-12.5	5-29-90	12.5 ft.	380 ppm	Yes

SAMPLE #	DATE COLLECTED	DEPTH COLLECTED	OVA READING	SENT TO LAB
HB-5-10.5	5-29-90	10.5 ft.	310 ppm	Yes
HB-6-10.5	5-29-90	10.5 ft.	1000 ppm	Yes
HB-7-10.5	5-29-90	10.5 ft.	260 ppm	Yes

\* ppm = parts per million

### 3.0 Site restoration.

The excavation was backfilled with the native soil to await laboratory results.

### 4.0 Laboratory analysis.

Soil samples for laboratory analysis were immediately placed in a chilled cooler after collection, refrigerated while stored at SPATCO Environmental offices, and shipped to the subcontract laboratory in a chilled cooler. Seven (7) of the soil samples collected were submitted to Law and Company Laboratories for analysis. The seven (7) samples collected on May 29, 1990 were analyzed for both Total Petroleum Fuel Hydrocarbons (TPFH) - EPA Method 5030 GC and Total Petroleum Hydrocarbons (TPH) - EPA Method 3550 GC. The results of laboratory analyses are summarized in Table 2.

Table 2 - Results of laboratory analysis.

SAMPLE #	TPFH EPA Method 5030 (ppm)	TPH EPA Method 3550 (ppm)
HB-1-12.5	ND*	ND
HB-2-12.5	19	ND
HB-3-12.5	ND	ND
HB-4-12.5	ND	ND
HB-5-10.5	ND	ND
HB-6-10.5	66	ND
HB-7-10.5	ND	ND

\* ND = No detection at the specified detection limit.  
 Detection Limit: Total Petroleum Fuel Hydrocarbons - 10 ppm  
 Total Petroleum Hydrocarbons - 10 ppm

The soil samples HB-2-12.5 and HB-6-10.5 exceed the North Carolina Division of Environmental Management's (NCDEM) "action level" for soil remediation. North Carolina Foam Industries was notified of the laboratory analysis results during a telephone conversation between Alex McGilvary of SPATCO Environmental and Mr. Sams with North Carolina Foam Industries.

**5.0 Soil remediation.**

On June 26, 1990, SPATCO Environmental returned to N. C. Foam Industries, Inc. to excavate the areas that exceeded the NCDEM's action level. The areas were excavated and three (3) soil samples were collected at the base of the new excavations. All backfill previously replaced in the excavation and all additional soil removed from the excavations was loaded on tandem dump trucks and transported to an open field behind the plant operations building. The soil was placed in a layer of approximately 1' thick on heavy plastic sheeting, surrounded by a hay bale berm. The soil stockpile was covered with plastic in order to prevent infiltration, pooling of water, and leaching of contamination into the underlying soils. Figure 3 shows the areas excavated during the soil remediation operation.

**6.0 Soil sampling procedures and OVA evaluation.**

After the soil was removed from the excavations, three (3) additional soil samples were collected from the areas previously found to contain petroleum hydrocarbon contaminants. The soil sampling procedure was conducted as previously described in Section 2.0 of this report. The results of the soil sample OVA evaluation are given in Table 3.

Table 3 - Soil sampling depths and OVA readings

SAMPLE #	DATE COLLECTED	DEPTH COLLECTED	OVA READING	SENT TO LAB
HB-6A-15.0	6-26-90	15.0 ft.	ND*	Yes
HB-2A-15.0	6-26-90	15.0 ft.	ND	Yes
HB-2W-13.5	6-26-90	13.5 ft.	580 ppm	Yes

\* ND = No detection with Organic Vapor Analyzer.

**7.0 Site restoration.**

The excavation was backfilled with clean, imported soil up to the original grade and tamped in place with the trackhoe. The area was seeded and strawed. The crushed stone was placed in the parking area.

**8.0 Laboratory analysis.**

Soil samples for laboratory analysis were immediately placed in a chilled cooler after collection, refrigerated while stored at SPATCO Environmental offices, and shipped to the subcontract laboratory in a chilled cooler. All of the soil samples collected on June 26, 1990, were submitted to Law and Company Laboratories for analysis. The three (3) samples collected were analyzed for Total Petroleum Fuel Hydrocarbons (TPFH) - EPA Method 5030 GC. The results of laboratory analyses are summarized in Table 4.

Table 4 - Results of laboratory analysis.

SAMPLE #	TPFH EPA Method 5030 (ppm)
HB-6A-15.0	ND*
HB-2A-15.0	ND
HB-2W-13.5	ND

\* ND = No detection at the specified detection limit.  
Detection Limit: Total Petroleum Fuel Hydrocarbons - 10 ppm

**9.0 Conclusions.**

It is my understanding that the North Carolina Division of Environmental Management (NCDEM) currently requires remedial action be taken on soils that equal or exceed 85 ppm TPH or TPFH. However, soils that equal 10 ppm TPH or TPFH, but do not exceed 85 ppm TPH or TPFH, may not require remediation depending on site specific characteristics. These laboratory results indicate that, if petroleum hydrocarbon contamination is present in the soil samples collected, it is below the laboratory's detection limit of 10 ppm.

It is also my understanding that N. C. Foam Industries intends to manage the contaminated soil stockpile. It is my recommendation that the soil stockpile be periodically disked or tilled to allow aeration and bacterial degradation of the petroleum hydrocarbon contamination to occur. Care should be taken not to puncture the containment when the stockpile is disked

or tilled. However, the soil must remain on plastic within the berm of hay bales and covered during inclement weather to prevent the spread of contamination during the aeration process.

This report and attachments are for your files; however, it is recommended that a copy of this report be forwarded to the North Carolina Division of Environmental Management. A copy of the report in its entirety is enclosed for that purpose.

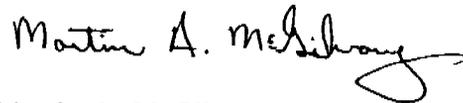
Thank you for the opportunity of working with your firm on this project. We look forward to continue a working relationship with your firm when the need arises. If any questions concerning the report arise, please do not hesitate to call.

Sincerely,  
SPATCO Environmental



Barry S. Cleveland  
Staff Geologist

Reviewed and Approved by:



Martin A. McGilvary, P. G.  
Staff Geologist

BSC;jh  
enc(s)



# LAW & COMPANY

## Consulting and Analytical Chemists

ESTABLISHED 1903

Main Office  
1711 Castle Street  
P.O. Box 629  
Wilmington, N.C. 28402

919-762-7082 919-762-8956  
FAX 919-762-8785

SOUTHERN PUMP AND TANK COMPANY  
ENVIRONMENTAL DIVISION  
556-L ARBOR HILL ROAD  
KERNERSVILLE, N.C. 27284  
ATTN: ALEX MCGILVARY

**RECEIVED**  
**JUN 15 1990**

ENVIRO  
Winston-Salem

DATE RECEIVED: 5-31-90  
DATE COLLECTED: 5-29-90  
COLLECTED BY: A. MCGILVARY  
LAB I.D. #: EW 2496

W/O# 36137

SAMPLE DESCRIPTION: SOIL - N.C. FOAM INDUSTRIES

TESTS/SAMPLES	UNITS	HB-1 12.5	HB-2 12.5	HB-3 12.5	HB-4 12.5
TOTAL PETROLEUM FUEL HYDROCARBON	PPM	<10*	19	<10*	<10*
TOTAL PETROLEUM HYDROCARBON	PPM	<10*	<10*	<10*	<10*

TESTS/SAMPLES	UNITS	HB-5 10.5	HB-6 10.5	HB-7 10.5
TOTAL PETROLEUM FUEL HYDROCARBON	PPM	<10*	66	<10*
TOTAL PETROLEUM HYDROCARBON	PPM	<10*	<10*	<10*

EPA METHOD # 3550 GAS CHROMATOGRAPH (TPH)  
EPA METHOD # 5030 GAS CHROMATOGRAPH (TPFH)

DETECTION LIMITS = 10 PPM

\* BELOW DETECTION LIMITS

*Dolly Bidwan*  
LABORATORY DIRECTOR



556 L ARBOR HILL ROAD  
KERNERSVILLE, NORTH CAROLINA 27284  
PHONE 919/996-0573

# Chain of Custody Record

SOUTHERN PUMP & TANK COMPANY

Page 1 of 1

PROJECT		ANALYSES		NO. OF CONTAINERS	DATE/TIME	REMARKS	SAM ID NO. (for lab use only)	
NORTH CAROLINA FOAM INDUSTRIES		TPH (EPA Method # 3350 GC)	TPFH (EPA Method # 3330 GC)					
FIELD SAMPLE I.D.	SAMPLE MATRIX							
HB-1-12.5	SOIL	X	X	1	5-29-90/1655	220 ppm / 1708 hco		
HB-2-12.5		X	X	1	5-29-90/1652	400 ppm / 1707 hco		
HB-3-12.5		X	X	1	5-29-90/1710	220 380 ppm / 1744 hco		
HB-4-12.5		X	X	1	5-29-90/1712	380 ppm / 1730 hco		
HB-5-10.5		X	X	1	5-29-90/1732	310 ppm / 1745 hco		
HB-6-10.5		X	X	1	5-29-90/1725	1000 ppm / 1746 hco		
HB-7-10.5		X	X	1	5-29-90/1754	260 ppm / 1806 hco		
REMARKS OVA readings in remarks column by each sample ID #								
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
<i>Andy Smith</i>	5/30/90	10:00	<i>Andy Smith</i>	5/30/90	17:30	<i>Monte A. McElroy</i>	5/30/90	14:45

LAB USE ONLY

RECEIVED FOR LABORATORY BY: *Andy Smith* DATE: 5/30/90 TIME: 10:00

AIRBELT NO. *58809*

DATE OPENED BY: *Andy Smith* TIME: 10:00

TEMP °C: *22* SEAL: *Good* CONDITION: *Good*

REMARKS:

58809 0163 58809 90885

**LAW & COMPANY**  
*Consulting and Analytical Chemists*

ESTABLISHED 1903

Main Office  
1711 Castle Street  
P.O. Box 629  
Wilmington, N.C. 28402

RECEIVED  
JUL 5 1990

ENVIRONMENTAL  
Winston-Salem  
RICHARD SPIVEY, President  
919-762-7082 919-762-8956  
TWX 510 937 0280

SOUTHERN PUMP AND TANK COMPANY  
ENVIRONMENTAL DIVISION  
556-L ARBOR HILL ROAD  
KERNERSVILLE, N.C. 27284  
ATTN: ALEX MCGILVARY

DATE RECEIVED: 6-28-90  
DATE COLLECTED: 6-26-90  
COLLECTED BY: B.S. CLEVELAND  
LAB I.D.# EW 2759

W/O# 43617  
PO# 12567-00-EWI-01

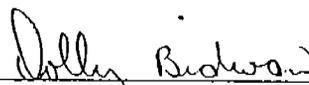
SAMPLE DESCRIPTION: SOIL - N.C. FOAM INDUSTRIES

TESTS/SAMPLES	UNITS	HB-6A 15'	HB-2A 15'	HB-2W 13.5
TOTAL PETROLEUM FUEL HYDROCARBON	PPM	<10*	<10*	<10*

EPA METHOD # 5030 GAS CHROMATOGRAPH

DETECTION LIMITS = 10 PPM

\* BELOW DETECTION LIMITS

  
LABORATORY DIRECTOR



*SPATCO Environmental  
556-L Arbor Hill Road  
Kernersville, NC 27284  
(919) 996-0573*

CERTIFICATION OF PROPER DISPOSAL  
USED UNDERGROUND STORAGE TANKS

The undersigned hereby declares that he has disposed of the tanks removed from the property of N. C. Foam Industries, Inc., hereinafter known as "the Company", located at 511 Carter St., Industrial Park, Mount Airy 27030, in the County of Surry, and State of North Carolina, in a manner consistent with all applicable federal, state and local laws governing such disposal.

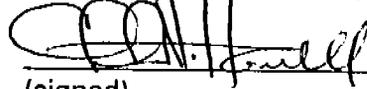
The undersigned further certifies that the Company has notified him of the previous use of the tank in the storage of toxic, explosive, flammable petroleum liquids, and that it is sold as scrap metal only, he having rendered it useless as a storage vessel by mechanical rending of its walls.

The undersigned assumes all risk with respect to the tank and will indemnify and save the Company harmless from all claims and liability of every kind in any way connected with its use or existence.

- (2) 1,000 gallon UST as gasoline
- (1) 4,000 gallon UST as diesel fuel

Signed at Kernersville, NC, this 9th day of July, 1990.

SPATCO ENVIRONMENTAL



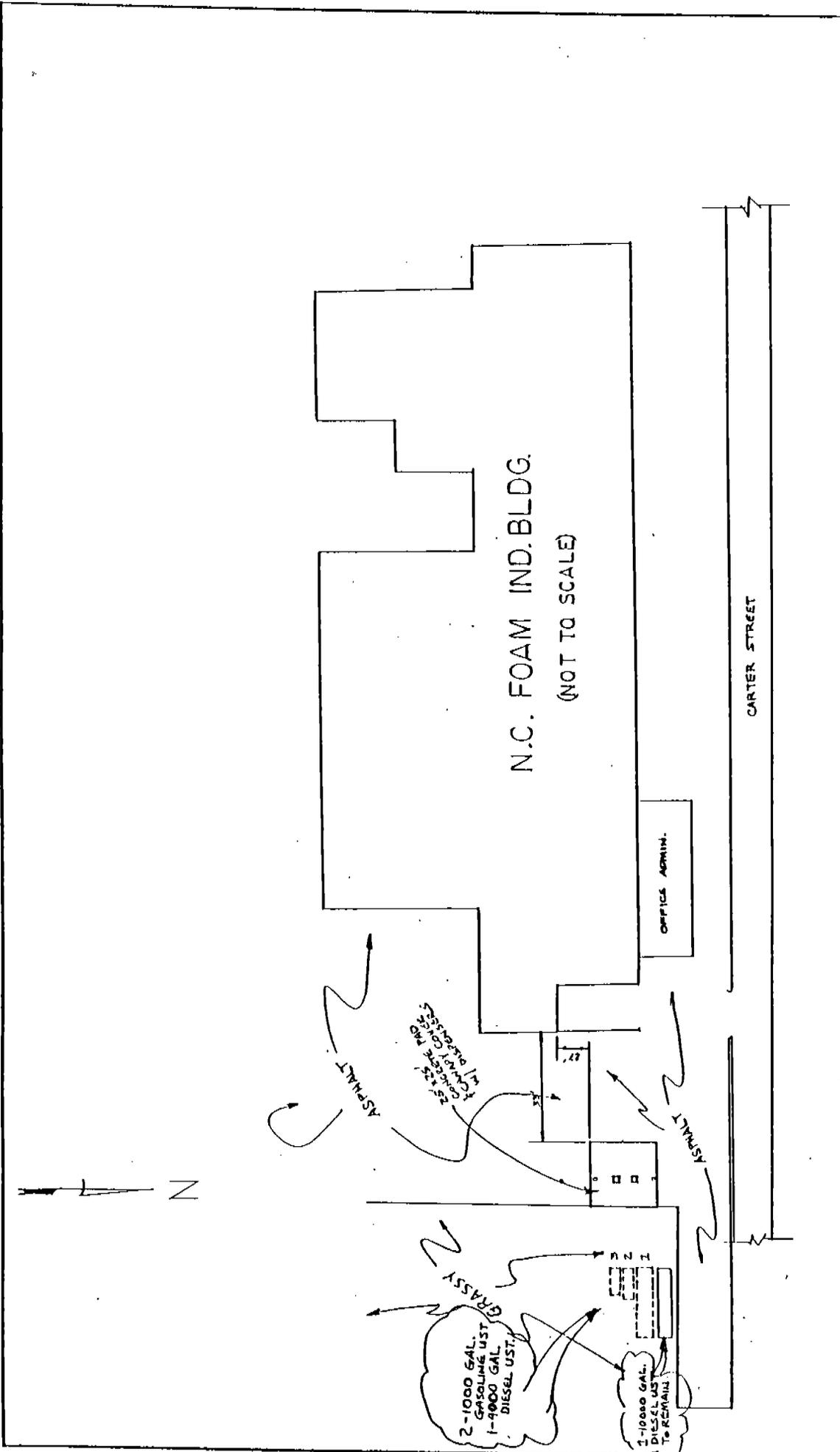
(signed)

Charles N. Howell, Branch Manager

In the presence of:

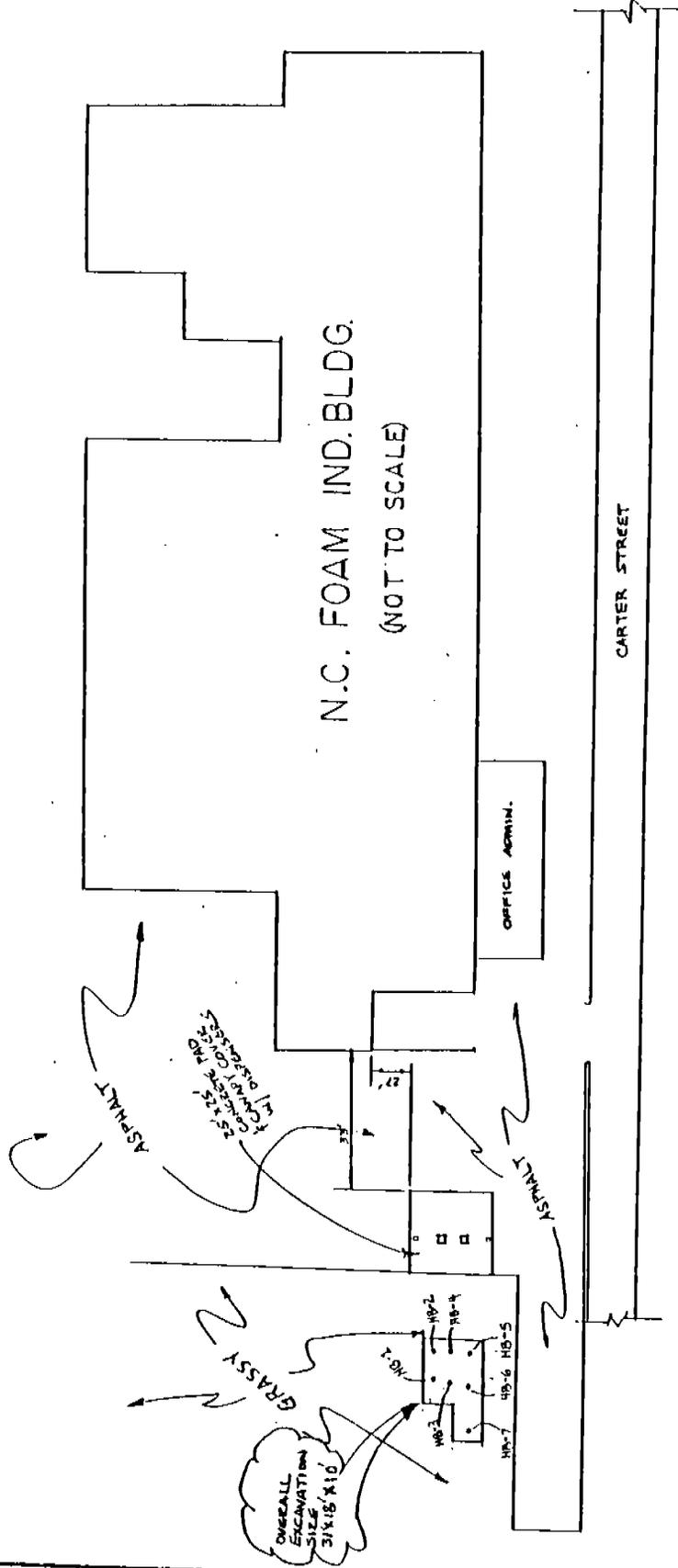
Jane W. Hill  
John B. Peters

**SPATCO**



N.C. FOAM INDUSTRIES INC. 511 CARTER STREET MT. AIRY, N.C.		DRAWN BY BSC
SCALE: 1" = 40'	APPROVED BY:	REVIEWED
DATE: 6-29-90		
<b>SPATCO ENVIRONMENTAL</b>		
SPATCO WORK ORDER NO. 45617		DRAWING NUMBER

FIGURE 1. GENERAL SITE SKETCH INDICATING THE UST ORIENTATION.



N.C. FOAM IND. BLDG.  
(NOT TO SCALE)

OFFICE ADMIN.

CARTER STREET

N.C. FOAM INDUSTRIES INC.  
511 CARTER STREET  
MT. AIRY, N.C.

SCALE: 1" = 40'

DATE: 6-29-90

APPROVED BY:

DRAWN BY: BSC

REVISED

SPATCO ENVIRONMENTAL

DRAWING NUMBER

SPATCO WORK ORDER NO. 43617

FIGURE 2. GENERAL SITE SKETCH  
INDICATING THE USE  
EXCAVATION AND SOIL  
SAMPLING POINTS.

