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April 29, 1993

N. C. DEPT. OF NATURAL
RESOURCES AND
COMMUNITY DEVELOPMENT

MAY 03 1993

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Mr. Allen Schiff
N.C. Department of Environment, Health
and Natural Resources
Division of Environmental Management
Mooresville Regional Office
919 North Main Street
Mooresville, NC 28115-0950

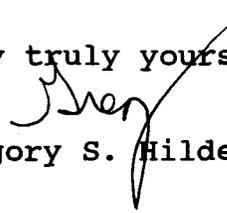
RE: Carolina Film Service, Inc./Vickers Realty, Inc.
1336 South Graham Street, Charlotte, North Carolina

Dear Allen:

We are enclosing the report entitled "Summary Report Tank Excavation Operations and Soil Boring Program" which we received from ERM-Southeast, Inc. earlier this week. By copy of this letter, we are sending a copy of this report to Lisa Corbitt of the Mecklenburg County Department of Environmental Protection.

Now that we have received the report, we will begin working with our client to obtain proposals for further action at this site. If you have any questions, please call me.

Very truly yours,


Gregory S. Hilderbran

GSH:st

Enclosure

cc: Lisa Corbitt (w/encl)

ERM-Southeast, Inc.

Suite 200
7300 Carmel Executive Park
Charlotte, NC 28226
(704) 541-8345
(704) 541-8416 (Fax)

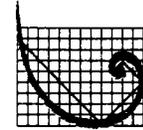
April 22, 1993

N. C. DEPT. OF NATURAL
RESOURCES AND
COMMUNITY DEVELOPMENT

MAY 03 1993

Mr. Benne C. Hutson
Smith, Helms, Mulliss and Moore
PO Box 31247
Charlotte, North Carolina 28231

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE



ERM

RE: UST Closure Summary Report
Vickers Realty/Carolina Film Service
1336 Graham Street, Charlotte, NC

Dear Mr. Hutson:

ERM-Southeast, Inc. (ERM) respectfully submits the final version of a draft summary report submitted to Vickers Realty October 8, 1990 regarding underground storage tank (UST) closure operations and a subsequent soil boring investigation conducted at the former Ramcon facility located on Graham Street in Charlotte, North Carolina.

The October 8, 1990 report has been reissued in accordance with your recent request. ERM understands that you intend to forward the report to the North Carolina Department of Environment, Health and Natural Resources to satisfy UST closure guidelines. The draft text was not revised. Note, therefore, that site sensitivity evaluation criteria presented in the report have changed since 1990.

If you have any questions concerning the UST closure or require further clarification of this investigation, please do not hesitate to call.

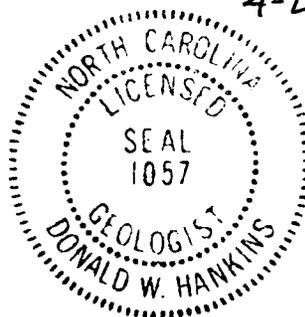
Sincerely,

ERM-Southeast, Inc.

Donald W. Hankins, P.G.
Hydrogeologist

4-22-93

enclosure



Offices of
ERM-Southeast Inc. in:

Brentwood, TN (Nashville)
Kennesaw, GA (Atlanta)
Charlotte, NC
Mobile, AL
Memphis, TN

A member of the Environmental
Resources Management Group

**SUMMARY REPORT
TANK EXCAVATION OPERATIONS
AND SOIL BORING PROGRAM
RAMCON FACILITY
1336 GRAHAM STREET
CHARLOTTE, NORTH CAROLINA**

Prepared for:

Vickers Realty/Carolina Film Service
522 Penman Street
Charlotte, North Carolina 28230
(704) 333-2115

Prepared by:

ERM-Southeast, Inc.
7300 Carmel Executive Park
Suite 200
Charlotte, NC 28226

October 8, 1990
ERM Project 8010 and 8010A

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Closure

Attachment B - Photographic Survey

Attachment C - Manifests of Sludge Disposal

Attachment D - Certificate of Tank Disposal

Attachment E - Laboratory Data Sheets (Tank Excavations)

Attachment F - Laboratory Data Sheet (Soil Boring Samples)

Attachment G - Site Sensitivity Survey

INTRODUCTION

Vickers Realty owns a 3.4 acre tract and warehouse building located at 1336 South Graham Street in Charlotte, North Carolina (Figure 1). This property is leased by Ramcon, Inc. which operates a shipping and receiving depot out of the warehouse. In November 1989, Vickers Realty solicited ERM-Southeast, Inc. (ERM) to permanently close 4 underground storage tanks (USTs) located at this site. Each of the tanks, two-5000 gallon UST, one-4000 gallon UST, and one-2000 gallon UST, formerly contained diesel fuel. Fueling operations at the facility were discontinued in September 1986. The tanks contained only trace quantities of fuel since that time. Notification of the tank removal project was given to the North Carolina Department of Environment, Health and Natural Resources (DEHNR) in a letter dated December 4, 1989. The notification letter is presented in Attachment A.

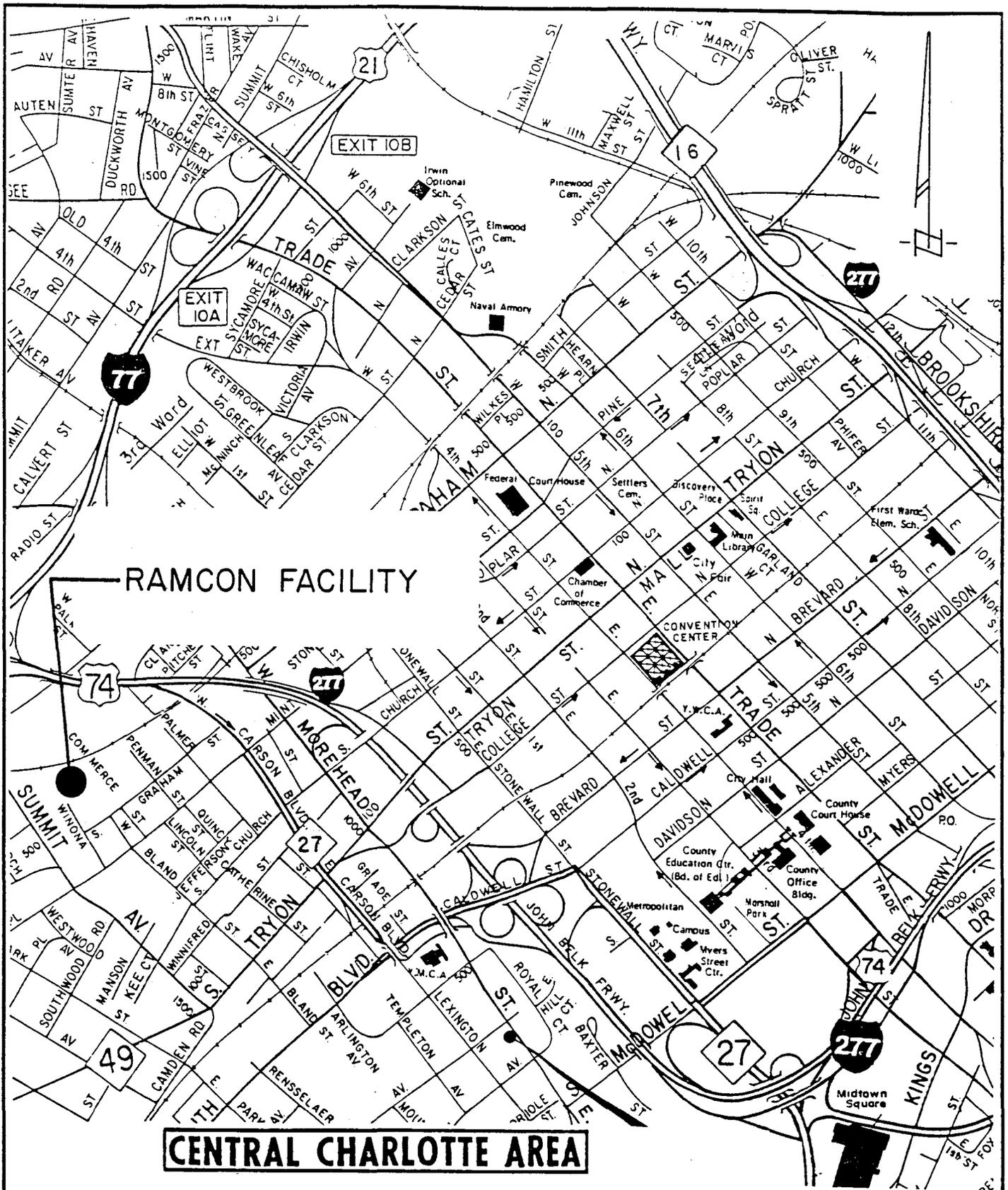
In May 1990, ERM managed the excavation and removal of the 4 empty tanks, associated pumps, and ancillary piping and collected soil samples below the excavated tanks in accordance with DEHNR regulations. Visual and olfactory observations of the tank excavation area and laboratory analyses of the soil samples indicated petroleum-affected soils adjacent to the tanks.

In order to assess the extent and quantity of petroleum-affected soils, Vickers Realty requested that ERM advance soil borings and conduct a confirmational soil sampling program in the vicinity of the former tank farm. ERM advanced 8 soil borings and collected 12 soil samples at the Ramcon facility in July 1990. Laboratory analyses of these soil samples indicated petroleum-affected soils downgradient of the tank farm.

This report summarizes the tank removal and soil borings operations conducted at the site, discusses the soil sampling methods and presents the results of the soil sample analyses.

EXCAVATION AND DISPOSAL OF THE 4 USTs

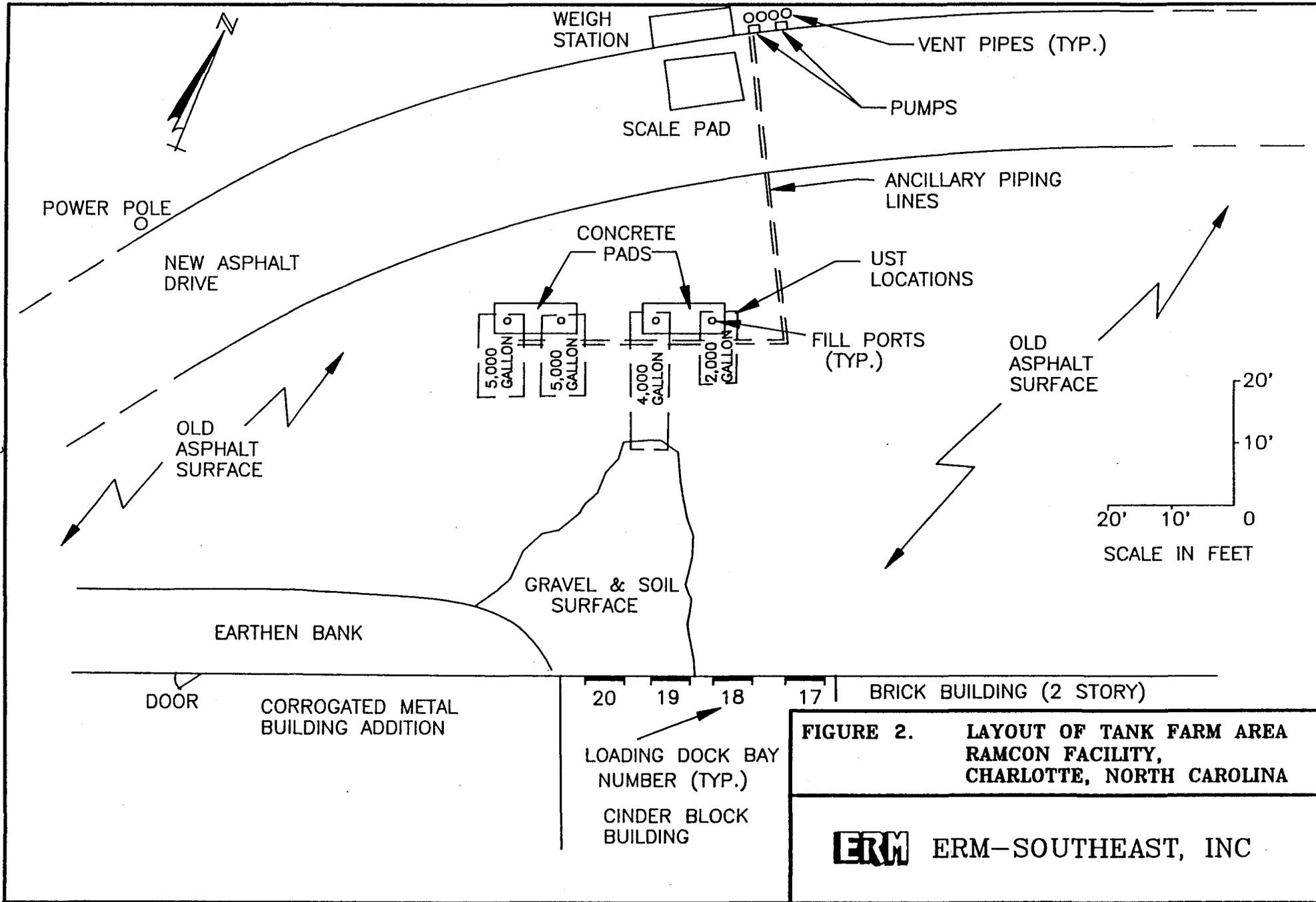
The tank farm was located in an asphalt parking area approximately 50 feet north of active loading bays operated by Ramcon. The fill ports for the two-5,000 gallon tanks and the 4,000 gallon tank and 2,000 gallon tank were contained in two concrete pads (4' x 12'), respectively (Figure 2). Two dispenser pumps were located near the property boundary approximately 50 feet north of the former tank farm area adjacent to an abandoned weigh station. Petroleum Tank Service, Inc. (PTS) of Newell, North Carolina was subcontracted by ERM to excavate, remove and dispose of the 4 USTs in accordance with the recommended procedures presented in API Bulletin #1604. ERM personnel were present throughout the soil excavation and tank removal activities. A photographic survey of the tank excavation and removal operations is presented in Attachment B.



NOT TO SCALE

FIGURE 1. LOCATION MAP OF THE RAMCON FACILITY.
 1336 GRAHAM STREET
 CHARLOTTE, N.C.

ERM ERM-Southeast, Inc.
 Environmental Resources Management



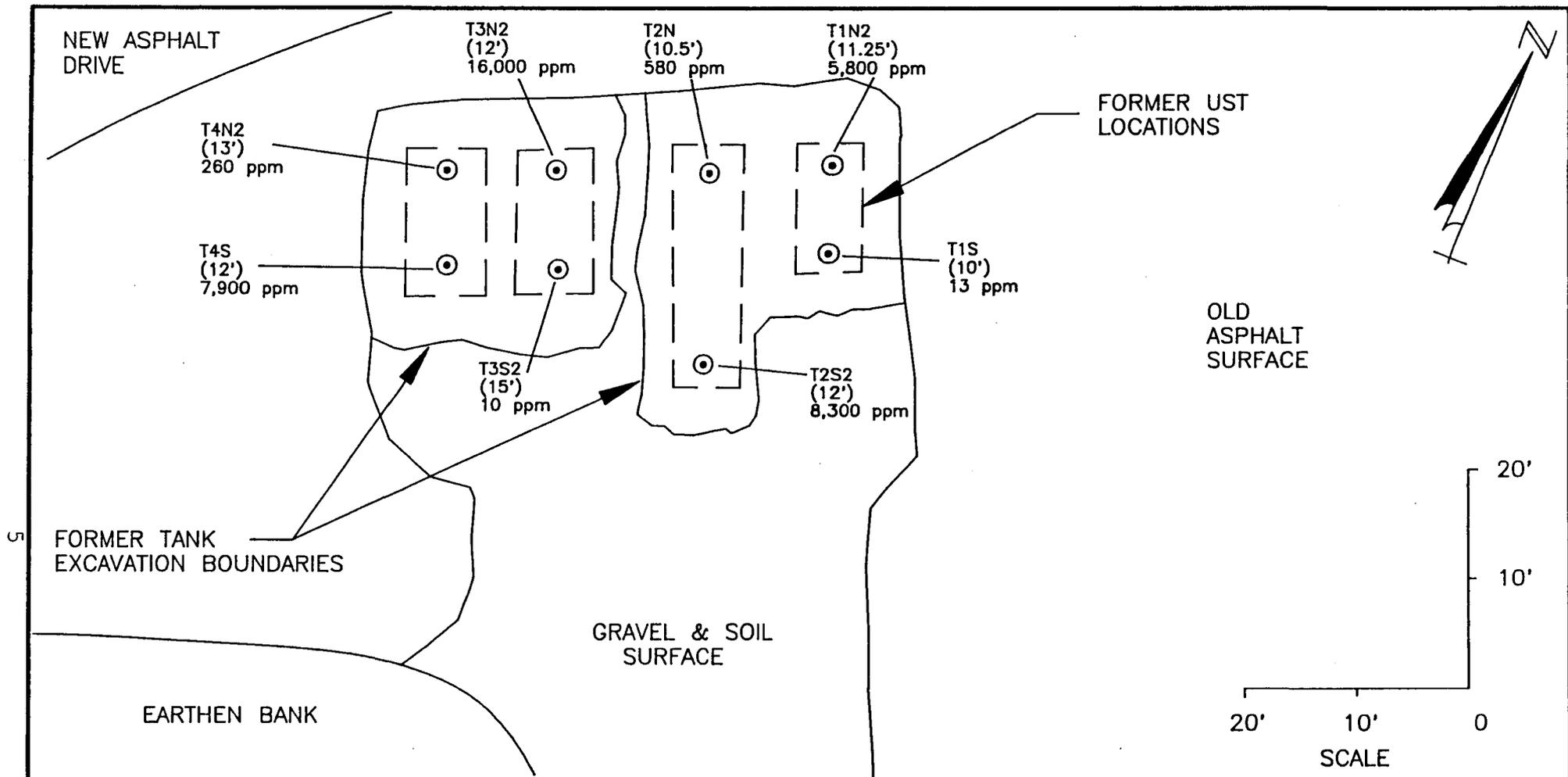
**FIGURE 2. LAYOUT OF TANK FARM AREA
RAMCON FACILITY,
CHARLOTTE, NORTH CAROLINA**

ERM ERM-SOUTHEAST, INC

Tank excavation work was begun on May 2, 1990. James Waste Oil Service of Charlotte, North Carolina pumped the residual fluid from the 4 tanks prior to soil removal activities. After the residual fluid was removed, PTS personnel excavated the 4 tanks with a track hoe. Once above the ground, entrance portals were cold cut in the tanks using air tools and petroleum vapors were purged from the tanks with nitrogen. PTS personnel then entered the tanks using pressure demand breathing gear and removed any remaining fuel oil and sludge. The cleaned and vapor freed tanks were transported to the PTS facility located at 7335 Orr Road in Charlotte, North Carolina. The tanks have been labeled and cut into pieces to be sold as scrap (Photographs 27 - 30). A total of four-55 gallon drums of sludge were generated by the cleaning process. These drums were transported from the Ramcon site by Heritage Environmental Services, Inc. of Charlotte, North Carolina. Heritage utilizes the sludge as an alternative industrial fuel. The diesel fuel sludge nonhazardous waste manifests generated by Heritage Environmental may be referenced in Attachment C. A certificate of disposal prepared by PTS for the 4 tanks and is presented in Attachment D.

Once excavated, ERM personnel inspected the tank exteriors for defects. No obvious holes or cracks were observed in the tanks, however, diesel fuel staining and odor was noted in the excavations. Soils exhibiting petroleum hydrocarbon staining or odors were screened with a photoionization detector (PID). A PID meter is a portable instrument used in the field to indicate the volatile compounds contained in a soil sample. Throughout the tank removal operations, soils exhibiting elevated levels of petroleum products and soils which did not appear to be petroleum-affected were segregated into different stockpiles. All stockpiled soil was placed on plastic adjacent to the excavation area.

After the tanks were removed from the ground, soil samples were collected for laboratory analyses as required by North Carolina regulations. The track hoe bucket was used to gain soil grabs from the floor of the excavations. Soil samples were then collected from the track hoe bucket with a clean trowel and screened with the PID meter. Based on the PID readings, two samples per tank, one from each tank end, were submitted to the laboratory and analyzed for North Carolina Class I and Class II petroleum products by EPA Methods 3550 and 5030. The location and depth of each sample collection point was measured by ERM personnel. Soil sample collection, handling, and preservation were conducted in accordance with accepted protocol including chain-of-custody documentation. The soil analyses were conducted by Industrial and Environmental Analysts, Inc. (IEA) of Cary, N.C., an EPA contracted and State certified laboratory. The tank locations, excavation boundaries, sample point locations and depths and laboratory results are illustrated in Figure 3. A summary of the analytical results for the soil samples collected during the tank removal operation is presented in Table 1. The data sheets for these analyses may be referenced in Attachment E.



CORROGATED METAL BUILDING ADDITION
LEGEND
 ⊙ T1S(10') = TANK EXCAVATION SAMPLING POINT (DEPTH IN FEET)
 13 ppm = TPH BY GC mg/kg (3550/5030)

20 19 18 17
 ← LOADING DOCK BAY NUMBER (TYP.)
 CINDER BLOCK BUILDING

BRICK BUILDING (2 STORY)
FIGURE 3. SOIL SAMPLE LOCATIONS AND RESULTS. RAMCON TANK EXCAVATION, CHARLOTTE, NORTH CAROLINA
ERM ERM-SOUTHEAST, INC

Table 1
 Summary of Analytical Results
 UST Excavation Confirmation Sampling
 May 2-3, 1990
 Ramcon, Inc. Charlotte, NC

Sample Point	Base of Tank (feet BGS)	TPH Concentration mg/kg (ppm)	Depth of Sample (feet BGS)
T1S	8.5'	13	10'
T1N2		5,800	11.25'
T2S2	8.5'	8,300	12'
T2N		580	10.5'
T3S2	11'	10	15'
T3N2		16,000	12'
T4S	11'	7,900	12'
T4N2		260	13'

Notes:

T1 = tank number
 S = south end of tank
 N = north end of tank
 BGS = below ground surface

Method = Total Petroleum Hydrocarbon analyses by Gas
 Chromatography (EPA 3550/5030 & TPH by GC-FID)

Analyses performed by Industrial Environmental Analysts, Inc.
 of Cary, NC

The excavations were backfilled with the stockpiled soils proceeding the collection of soil samples. Petroleum affected soils were placed on the floor of the excavations. A layer of plastic was then used to separate the overburden soils from affected soils. Gravel was used to raise the excavations to grade.

The ancillary piping associated with tank vent and pumping lines was cut and flushed by PTS personnel. The pumps were removed from the site to be sold as scrap metal. The tank excavation phase of work was completed on May 5, 1990.

SOIL BORING PROGRAM

A soil boring and sampling program was conducted at the Ramcon site on July 19 and 20, 1990. The purpose of this investigation was to determine the vertical and horizontal extent of diesel fuel affected soils observed during the excavation and removal of 4 aforementioned USTs. ERM subcontracted McCall Brothers, Inc. of Charlotte, North Carolina to advance the soil borings. ERM managed and observed all soil boring activities. A photographic survey of the soil boring operations is also presented in Attachment A.

The hollow stem auger drilling method was utilized to advance 8 soil borings in the area surrounding the former tank farm (Figure 4). The split spoon sampling method was used to continuously collect soil samples from a starting depth of 6 feet to a maximum depth of 17.5 feet below the ground surface. The split spoons were cleaned with detergent water, rinsed with distilled water, and steam cleaned initially and between each sampling event. Auger flights were steam cleaned before drilling began and between each boring. Split spoon soil samples were placed in appropriately labeled gallon sized zip-lock plastic bags immediately upon collection. The soils were then inspected and described by an ERM-Southeast geologist. Head space in the bags was surveyed with a photoionization detector (PID) meter approximately 20 minutes following sample collection. Twelve soil samples were selected from the 8 borings for laboratory analyses based on the results of the PID survey. Soil samples were submitted to IEA to be analyzed for North Carolina Class I and II petroleum products by EPA Methods 3550 and 5030. Geologic cross-sections of the tank farm area which illustrate the local lithology in relation to the former UST locations are presented in Figures 5, 6 and 7. Laboratory results for the soil samples collected during the soil boring program are summarized in Table 2. The laboratory data sheets for soils analyzed during this phase of work may be referenced in Attachment E.

Solids and fluids generated during the decontamination procedures were controlled by plastic ground covers to prevent spreading of potential contaminants at the site. Waste soils and a small amount of distilled water and detergent were returned to the borings with the auger cuttings. The borings were then capped with a neat cement grout to the surface.

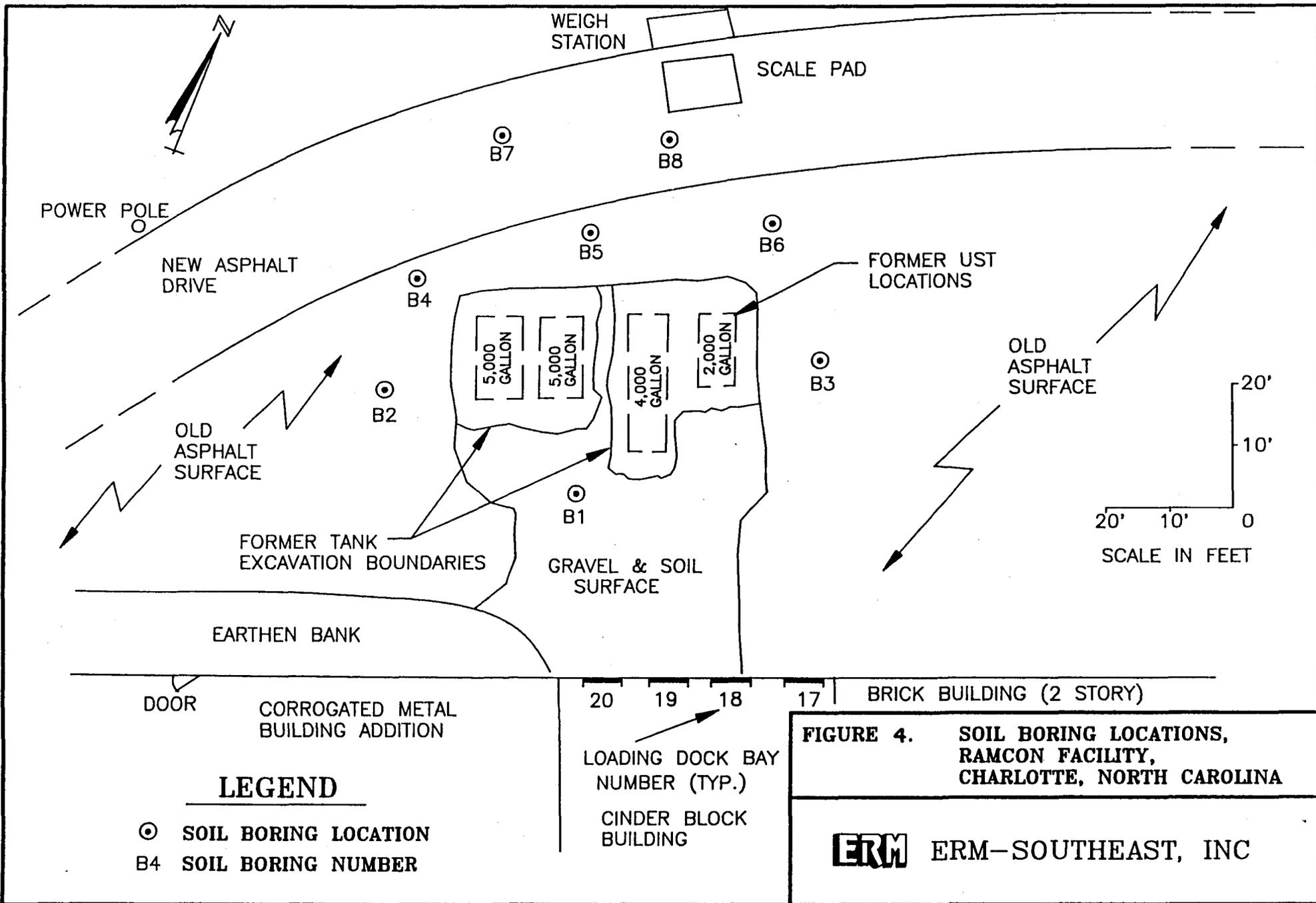
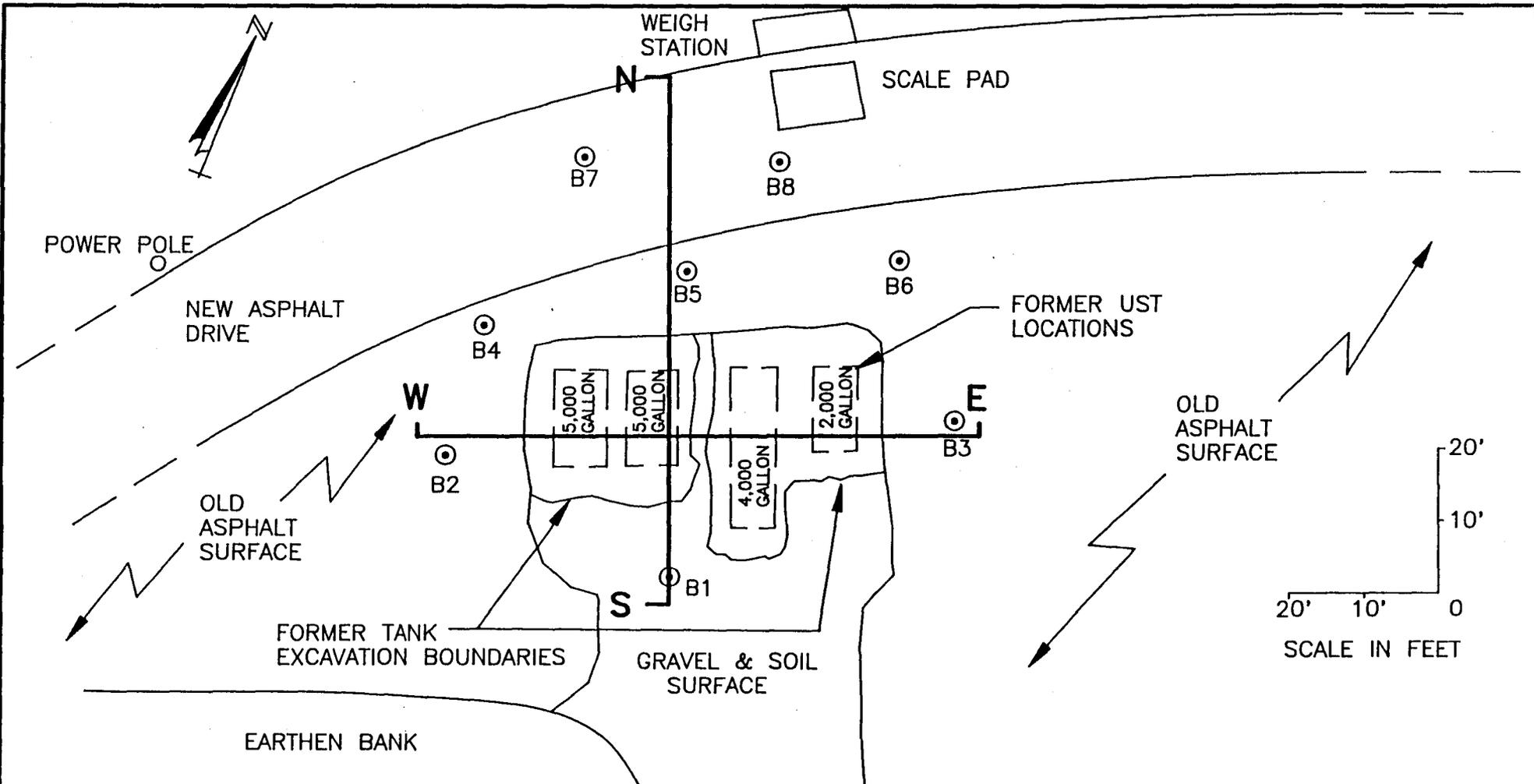


FIGURE 4. SOIL BORING LOCATIONS, RAMCON FACILITY, CHARLOTTE, NORTH CAROLINA

ERM ERM-SOUTHEAST, INC



DOOR CORROGATED METAL BUILDING ADDITION

LEGEND

- ⊙ SOIL BORING LOCATION
- B4 SOIL BORING NUMBER

20 19 18 17 | BRICK BUILDING (2 STORY)
 LOADING DOCK BAY NUMBER (TYP.)
 CINDER BLOCK BUILDING

FIGURE 5. PLAN VIEW OF GEOLOGIC CROSS-SECTIONS IN THE EXCAVATION AREA, RAMCON FACILITY, CHARLOTTE, NORTH CAROLINA

ERM ERM-SOUTHEAST, INC

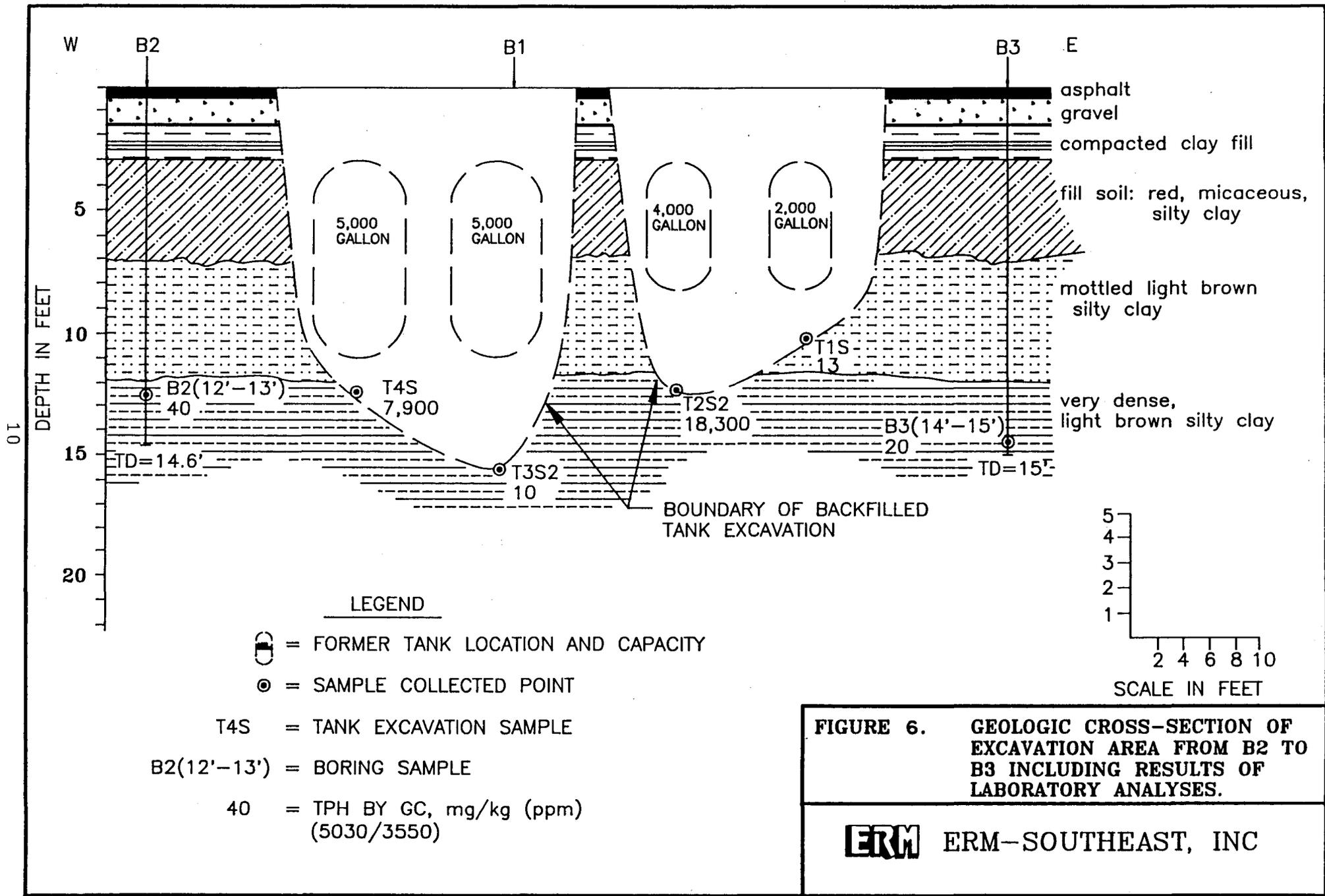


FIGURE 6. GEOLOGIC CROSS-SECTION OF EXCAVATION AREA FROM B2 TO B3 INCLUDING RESULTS OF LABORATORY ANALYSES.

ERM ERM-SOUTHEAST, INC

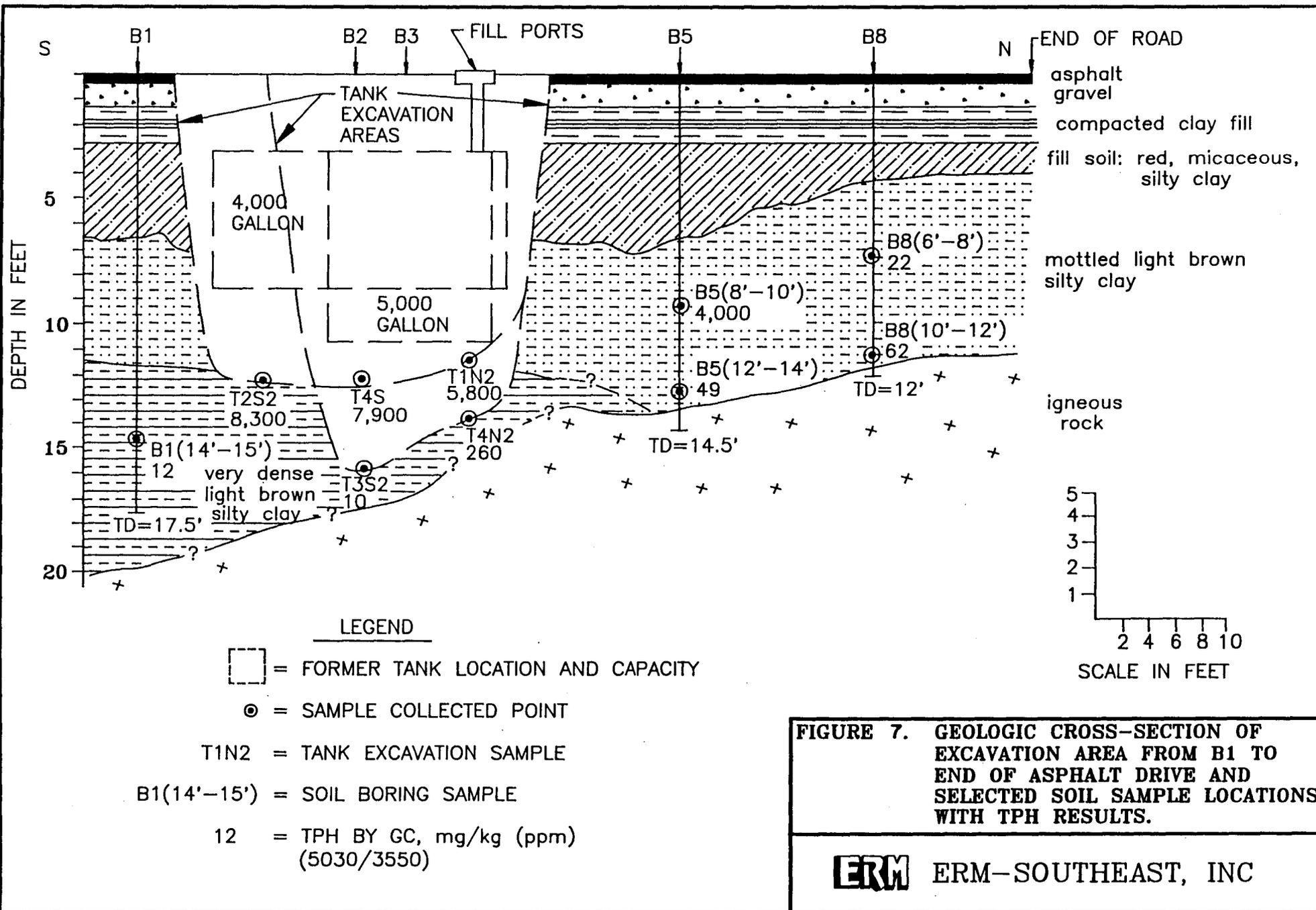


Table 2

Summary of Analytical Results
 Soil Boring Program
 July 19-20, 1990
 Ramcon, Inc. Charlotte, NC

Boring Number	TPH Concentration mg/kg (ppm)	Depth Interval (feet below ground surface)
B1	12	14'-15'
B2	40	12'-13'
B3	20	14'-15'
B4	2,500	8'-10'
B4	2.8	12'-14'
B5	4,000	10'-12'
B5	49	12'-14'
B6	1,900	10'-12'
B6	1,300	12'-14'
B7	480	10'-12'
B8	22	6'-8'
B8	62	10'-12'

Notes:

B1 = boring number

14'-15' = depth interval of sample collection

Method = Total Petroleum Hydrocarbon analyses by Gas
 Chromatography (EPA 3550/5030 & TPH by GC-FID)

Analyses performed by Industrial Environmental Analysts, Inc.
 of Cary, NC

CONCLUSIONS

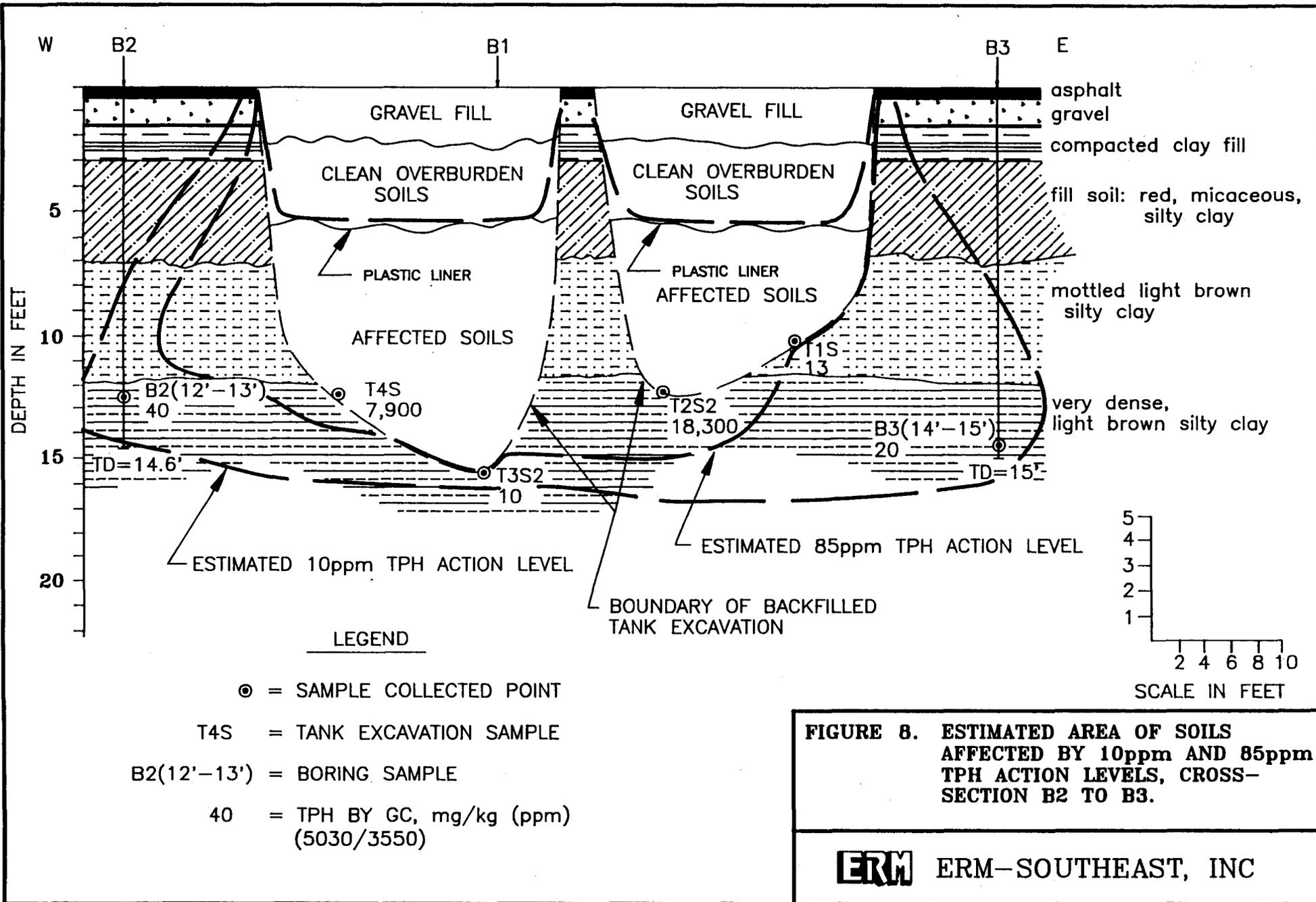
Four USTs were removed from the loading dock area of the Ramcon, Inc. building located at 1336 Graham Street in Charlotte, North Carolina in May 1990. Visual and olfactory observations, as well as laboratory analyses of the soil samples collected in the excavations indicated petroleum-affected soils adjacent to the former tank locations.

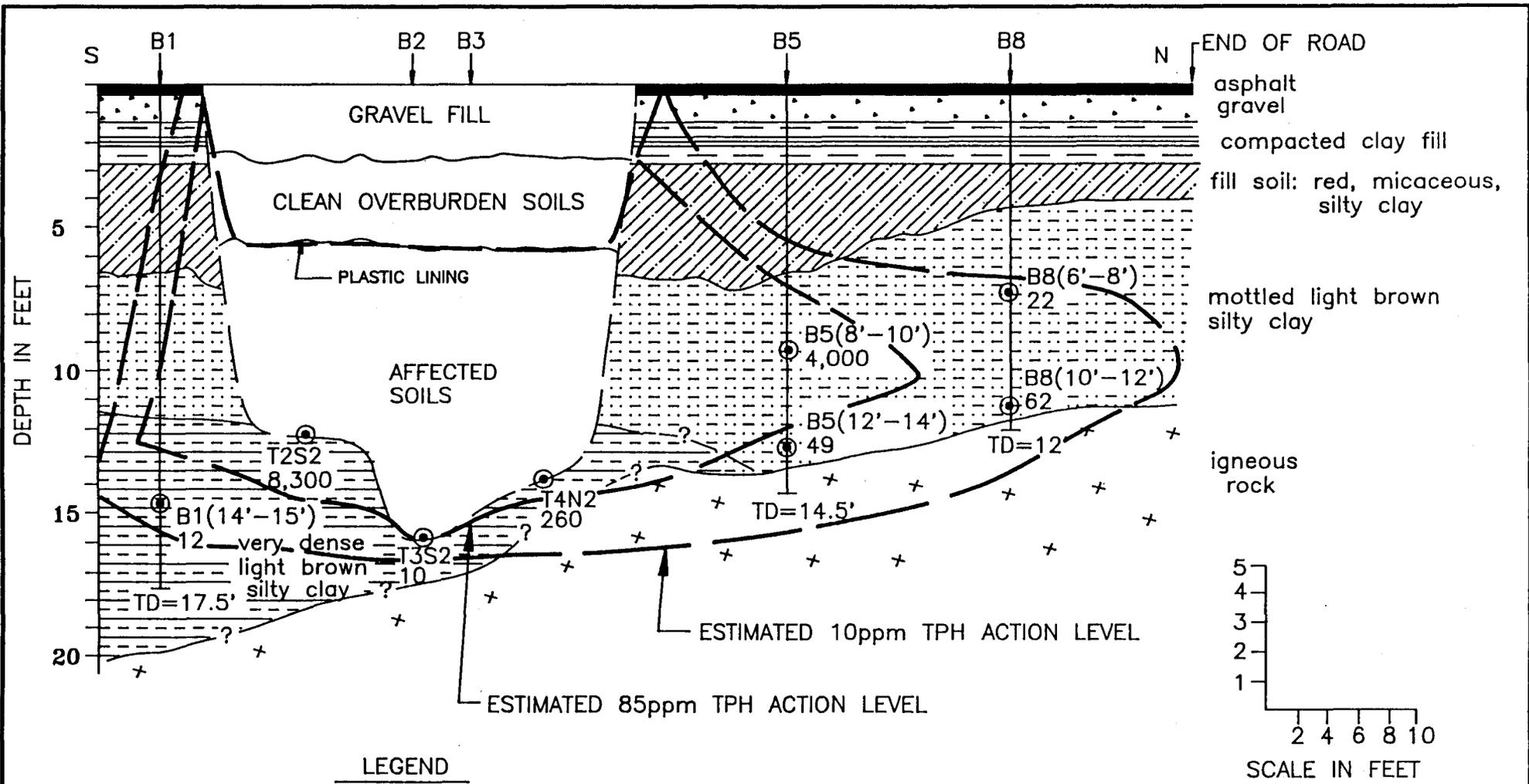
A soil boring program was implemented in July 1990 in order to assess the spacial extent of petroleum-affected soils observed in the former tank farm excavations. Laboratory analyses of samples collected from the soil borings indicated petroleum-affected soils downgradient of the former tank excavation area.

According to the Oil Spill and Hazardous Substance Act of 1978 (NCGS 143-215.75) the party having control over released petroleum products must notify the DEHNR and undertake corrective actions to restore the area affected by the discharge. All federal corrective action requirements as stated in the federal regulations for USTs containing petroleum products (40 CFR Part 280.66) are satisfied in the Oil Spill guidelines. In addition to these requirements which address soil contamination, an unpermitted release of petroleum to the subsurface in a manner that results in exceeding underground water quality standards as stated in NCGS 143-215.1(a)(6) is a violation of North Carolina law. In order to comply with North Carolina and federal regulatory requirements, soil remediation efforts must be conducted in a manner which eliminates potential threats to human health and/or welfare resulting from exposure to contaminated materials. This remedial action must also prevent further environmental degradation associated with leaching of contaminants into the ground waters of the State.

The action level or contaminant concentration that requires further investigation or remedial steps in North Carolina is 10 ppm for TPH products in soils. The 10 ppm TPH value may be increased to as high as 85 ppm TPH contingent upon DEHNR review of a Site Sensitivity Evaluation (SSE). A SSE examines the sensitivity of ground water to contamination by the release of petroleum related substances from a vadose zone source. A SSE form and TPH cleanup levels are presented in Attachment G.

Figures 8 and 9 indicate the estimated quantity of soils at the site affected by the 10 ppm TPH and 85 ppm TPH action levels. At the 10 ppm TPH or the 85 ppm TPH action levels approximately 2,100 cubic yards or 1,400 cubic yards of soil will require remedial action at the site, respectively.





- LEGEND**
- ⊙ = SOIL SAMPLE POINT
 - T1N2 = TANK EXCAVATION SAMPLE
 - B1(14'-15') = SOIL BORING SAMPLE
 - 12 = TPH BY GC, mg/kg (ppm)
(5030/3550)

FIGURE 9. ESTIMATED AREA OF SOILS AFFECTED BY 10ppm and 85ppm TPH ACTION LEVELS, CROSS-SECTION B1 TO END OF ASPHALT DRIVE.

ERM ERM-SOUTHEAST, INC

ATTACHMENT A
NOTIFICATION OF TANK CLOSURE

P.4/4

VICKERS REALTY, INCORPORATED

P.O. BOX 30845
CHARLOTTE, NORTH CAROLINA 28230

December 4, 1989

Division of Environmental Management
Groundwater Operations Branch
Department of Environment, Health and Natural Resources
P.O. Box 27687
Raleigh, North Carolina 27611-7687

Dear Sir:

Vickers Realty, Inc. has contracted with ERM-Southeast, Inc. of Charlotte, N.C. to permanently close our underground storage tanks at 522 Penman Street and 1336 South Graham Street, Charlotte, N.C. effective immediately.

These five (5) tanks, owned by Vickers Realty, Inc. consists of a 2000 gallon and a 3000 gallon tank at 522 Penman Street which has been empty since September 1986 and presently registers less than 1/2" of product on the measuring stick and three tanks at 1336 South Graham street, a 5000, a 4000, and a 2000 gallon tank. The tanks at 1336 South Graham Street presently measure 3", 9" and 4" of residue respectively.

The tanks at Penman Street stored gasoline and the tanks at Graham Street stored diesel fuel. The tanks at the Graham street location were also emptied in September 1986 and has not been used.

I am enclosing a copy of a letter dated August 2, 1989 that was sent to the Department of Natural Resources in Mooresville, N.C.

If you need any further information, please let me know.

Sincerely,

VICKERS REALTY, INC.


Donald L. Trivette
Vice President

Enclosure

ATTACHMENT B
PHOTOGRAPHIC SURVEY



1. View of the asphalt loading area located to the north of the Ramcon building and the concrete pad containing the fill ports for the 2,000 gallon and 4,000 gallon USTs.



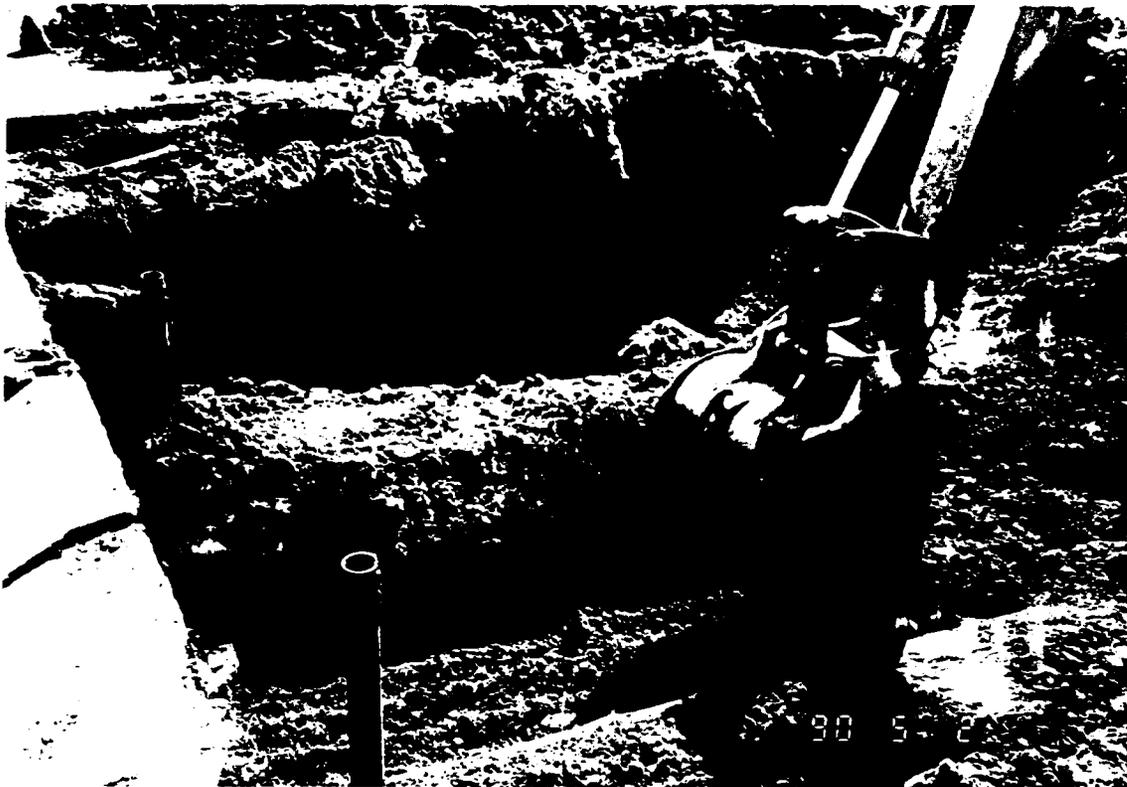
2. View of the asphalt loading area located to the north of the Ramcon building and the concrete pad containing the fill ports for the two 5,000 gallon tanks.



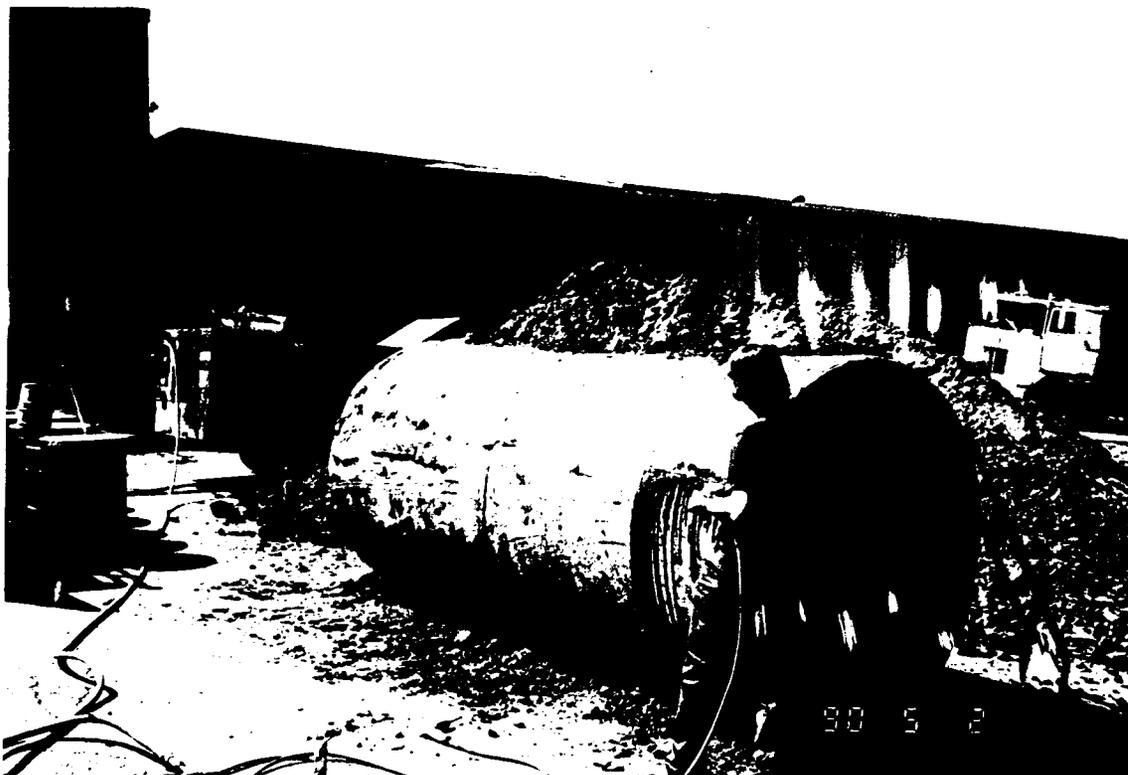
3. View toward the west of the asphalt loading area fill, ports and corrugated metal building.



4. Track hoe commencing tank excavation operations.



5. Track hoe bucket and exposed 2,000 gallon and 4,000 gallon tanks.



6. Following excavation, entry portals were cut into the tanks using air tools. The tanks were then purged of vapors with nitrogen and checked for O_2 content prior to manual sludge removal.



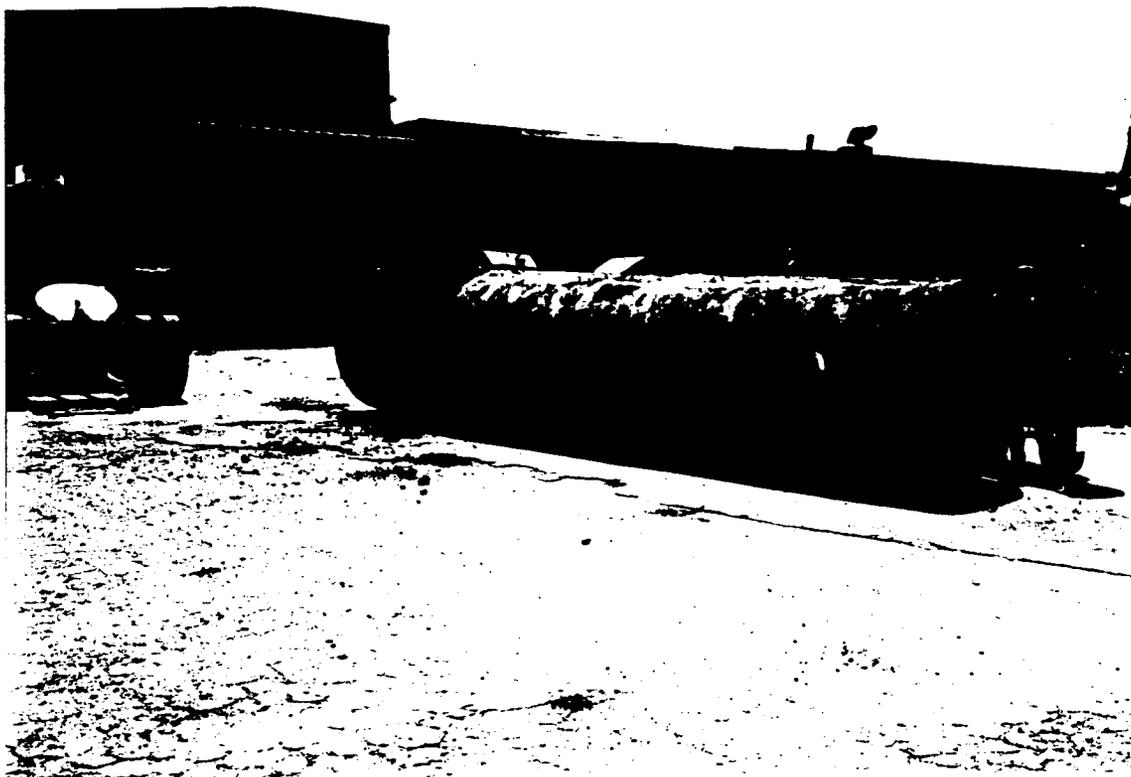
7. Soil staining at the north end of the 2,000 gallon tank.



8. Excavation containing the 4,000 gallon tank and former 2,000 gallon tank location. Also note the asphalt layer, gravel layer, and compacted clay layer overlying the USTs.



9. Soil staining at the north end of the 4,000 gallon tank.



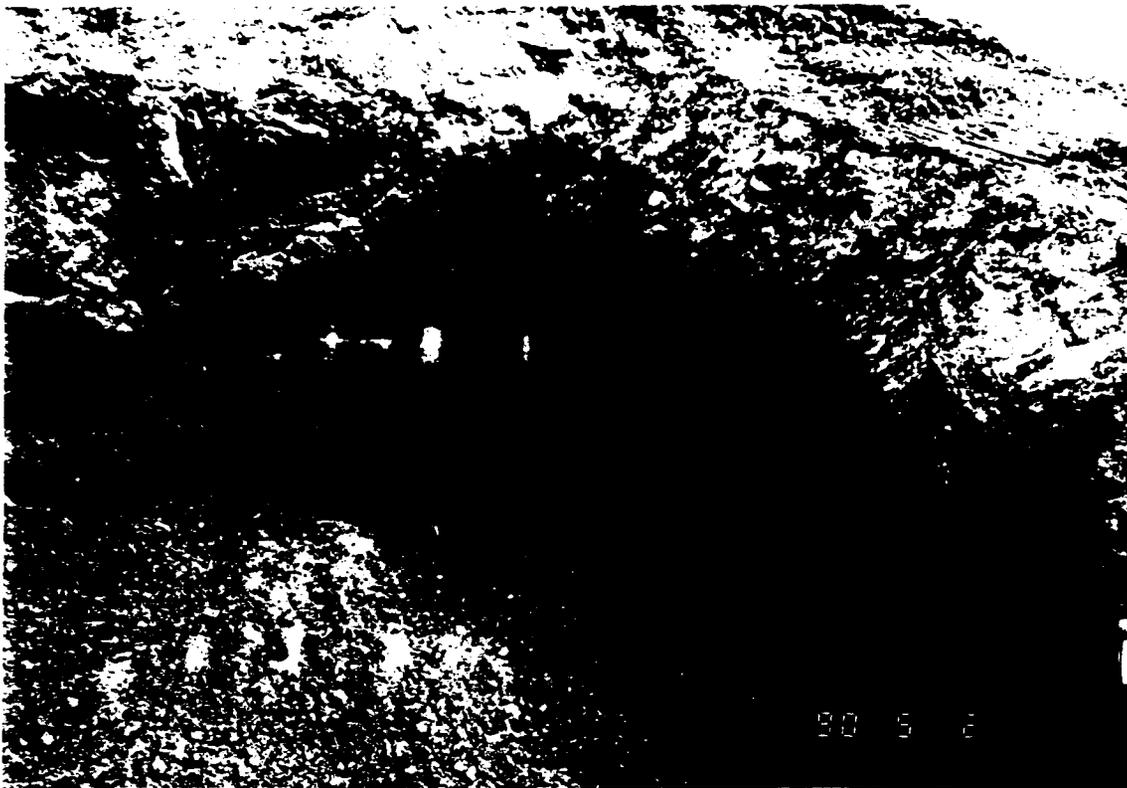
10. View of the 4,000 gallon tank. PTS personnel are checking the O_2 concentration in the tank with a LEL meter.



11. Excavation containing the two 5,000 gallon tanks. Note staining in clay layer overlying the USTs.



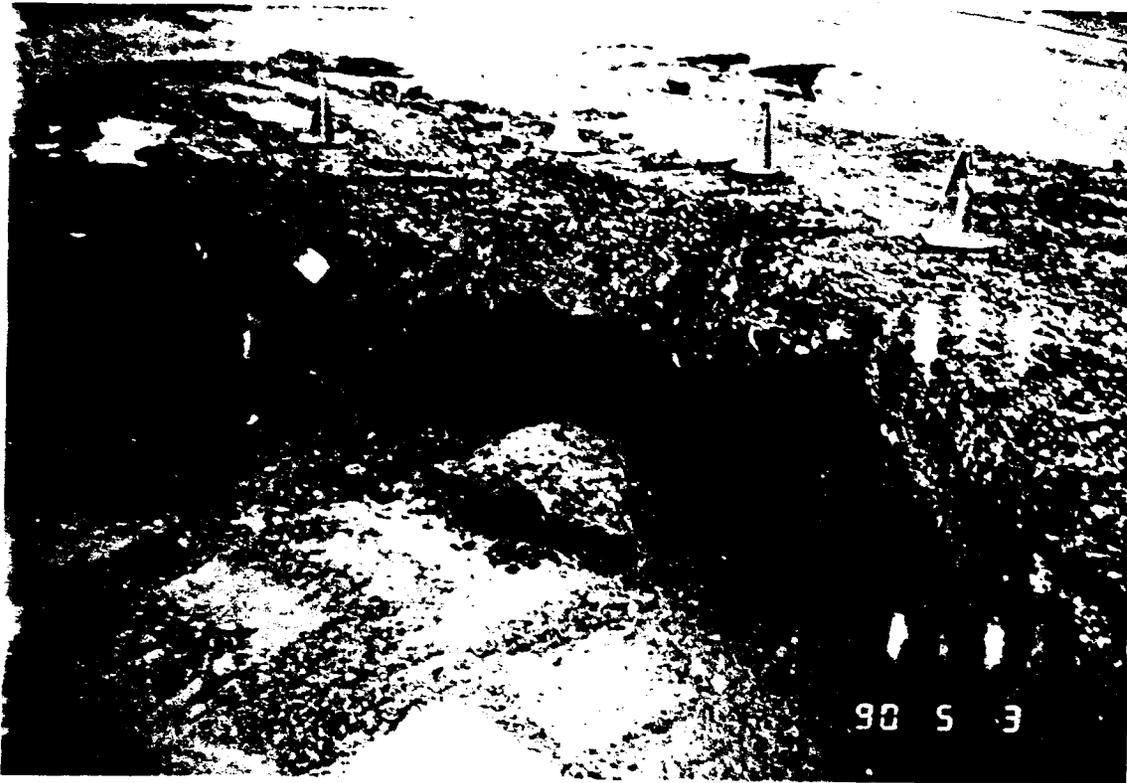
12. View of excavation area toward the east including track hoe, a 5,000 gallon tank, and excavated soils which were placed on plastic during the tank removal operations.



13. Soil staining at the northwest corner of the excavation containing the 5,000 gallon tanks.



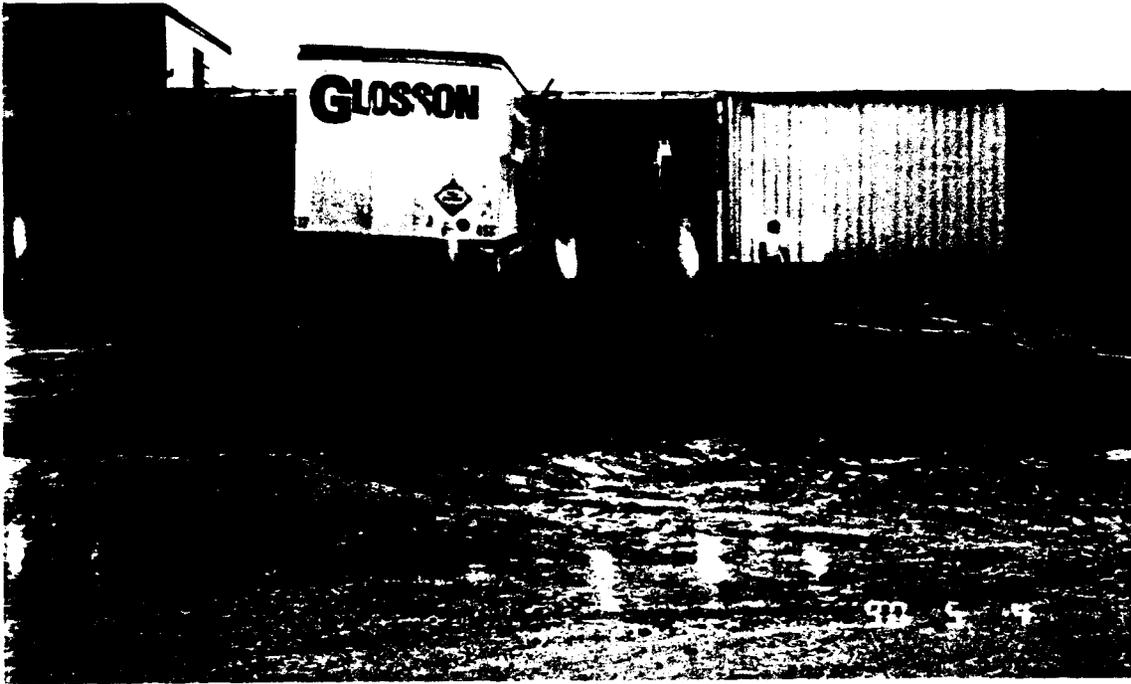
14. Pressure demand air equipment was used by PTS personnel during manual sludge removal from the tanks.



17. Removed soils were placed back into the excavations.



18. View of backfilling operations.



19. The excavation area was finished with gravel to grade.



20. Tank removal operations were approved by the Charlotte Fire Department.



21. View of the excavation area prior to conducting the soil boring program in July 1990.



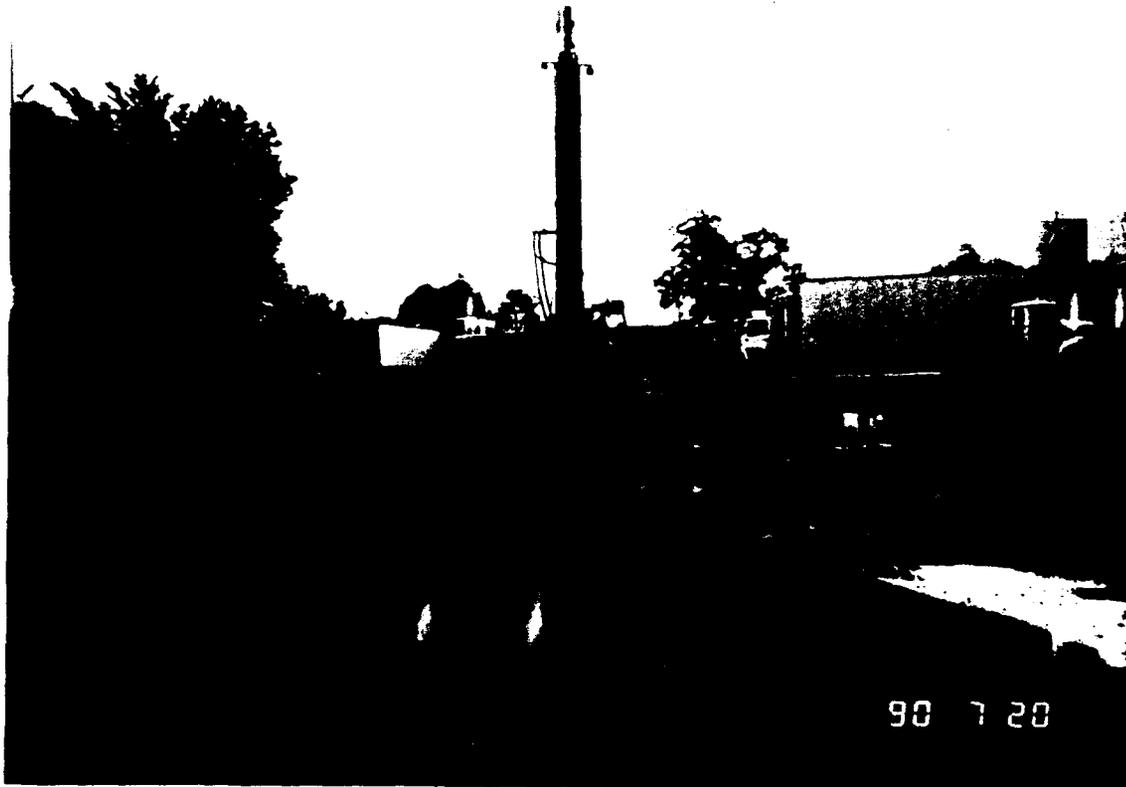
22. Soil borings were advanced by hollow stem auger method using a truck mounted drill rig.



23. View of soil boring #5.



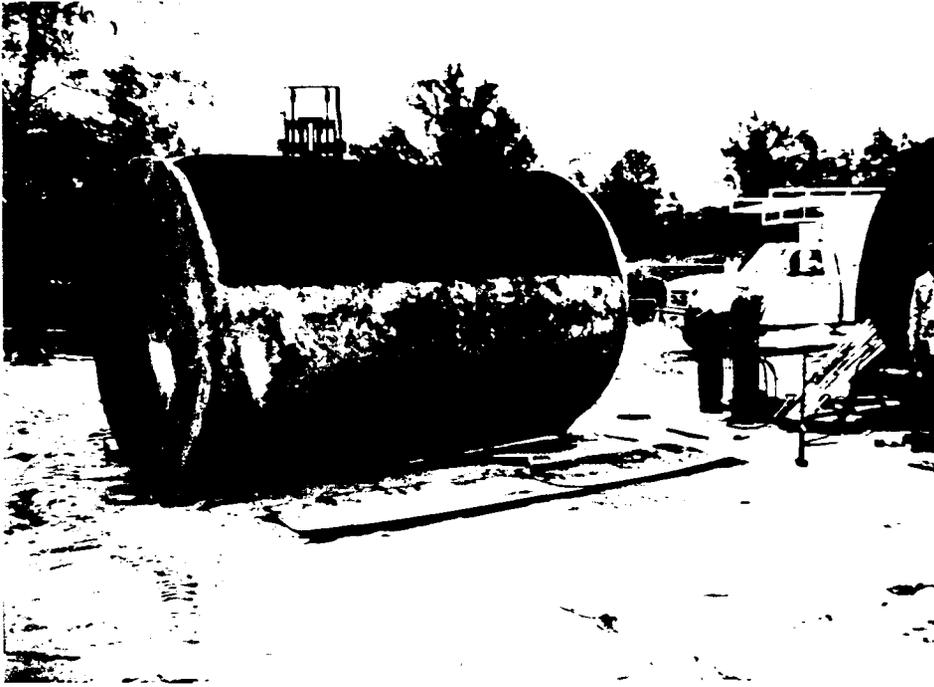
24. Inclement weather conditions late in the day on July 19, 1990. View of soil borings #1, #2, and #3. Drill rig is set up at soil boring #5.



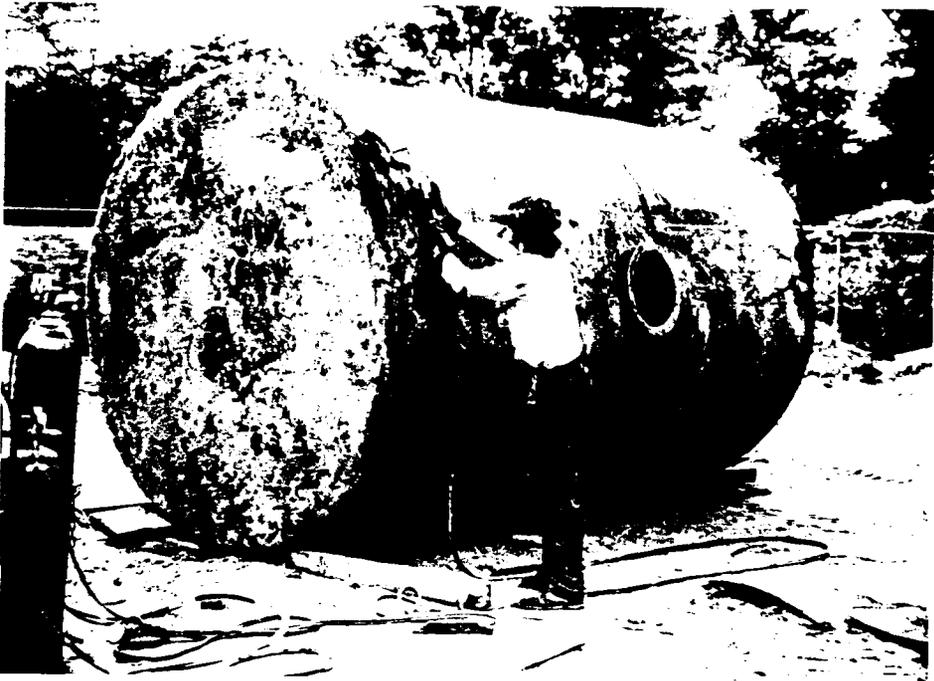
25. Drill rig is set up over soil boring #4.



26. Soil sample collected from the 8' - 10' depth interval in boring #8.



27. One of the 5,000 gallon tanks cut at PTS facility located on Orr Road in Charlotte, North Carolina.



28. The other 5,000 gallon tank cut at PTS facility located on Orr Road in Charlotte, North Carolina.



29. View of the 4,000 gallon tank being cut.



30. View of the 2,000 gallon tank being cut.



15. Typical sludge generated by tank cleaning process.



16. Following the removal of sludge, the tanks were transported to the PTS facility located on Orr Road in Charlotte, NC to be cold cut and sold as scrap metal.

ATTACHMENT C
MANIFESTS OF SLUDGE DISPOSAL



SMALL QUANTITY GENERATOR PROGRAM

INVOICE

2

INVOICE NUMBER	1234
DATE	5-16-90
MANIFEST NUMBER	00001

HERITAGE ENVIRONMENTAL SERVICES, INC.
 4132 POMPANO DRIVE
 CHARLOTTE, NC 28216
 704-392-6276

PLEASE REMIT TO: P.O. BOX 66132, INDIANAPOLIS, IN 46266
 TERMS: NET ON RECEIPT, 1.5% PER MONTH AFTER 30 DAYS

CUSTOMER				SERVICE LOCATION			
CO. NAME	Petroleum Tank Service Inc.			CO. NAME	Ramcon Inc.		
STREET	P.O. Box 237			STREET	1336 S. Graham Street		
CITY	STATE	ZIP		CITY	STATE	ZIP	
	Newell, N.C.	28126			Charlotte, N.C.	28203	
PHONE NO.:	704-597-1910			PHONE NO.:	704-333-1251		
CONTACT NAME:	Mark Oden			CONTACT NAME:	Billy Burris		

WASTE DESCRIPTION / COMMON NAME
 Diesel Fuel Sludge

PRINCIPAL COMPONENTS BASED ON MSDS		KNOWN OR SUSPECTED CONTAMINANTS		ANALYTICAL RESULTS CUSTOMER		ANALYTICAL RESULTS TAILGATE TESTING	
COMPONENT	CONCENTRATION	COMPONENT	CONCENTRATION	COMPONENT	CONCENTRATION	COMPONENT	CONCENTRATION

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE PRODUCT LISTED ABOVE CONTAINS ONLY THOSE COMPONENTS DESCRIBED IN THE WASTE DESCRIPTION AND WASTE CHARACTERIZATION AT THE LEVELS INDICATED. NON-CONFORMING WASTE MAY BE RETURNED TO MY FACILITY. (SEE 1.3 ON BACK)

CUSTOMER CERTIFICATION

4 drums

DISPOSAL	PRICE / DRUM
DISPOSAL TAX FEE	PRICE / DRUM
REPLACEMENT	PRICE / DRUM
MISCELLANEOUS CHARGES	
PAY THIS AMOUNT	

NEXT PICKUP DATE: _____ SIC CODE: _____ THIS IS THE ONLY INVOICE YOU WILL RECEIVE. SEE PAYMENT TERMS ON BACK OF INVOICE. PLEASE CALL 704/392-6276 WITH ANY QUESTIONS.

DRIVERS INITIALS: _____ SYSTEM DOC. NO. _____

1-WHITE/CUSTOMER 2-GOLD/REMITTANCE 3-CANARY/ACCOUNTING 4-PINK/TRANSPORTER 5-CANARY/TSD 6-WHITE/CENTRAL ACCOUNTING

UNIFORM HAZARDOUS WASTE MANIFEST

Generator's US EPA ID No. **5000**
 Manifest Document No. **000001**

2. Page 1 of 1
 Information not required by Federal law, unless otherwise indicated.

3. Generator's Name and Mailing Address
Kamcont, Inc.
1336 S. Graham Street

4. Generator's Phone
704-338-0511 / 704-338-2820

5. Transporter 1 Company Name
HERITAGE TRANSPORT, INC.

7. Transporter 2 Company Name
HERITAGE TRANSPORT, INC.

9. Designated Facility Name and Site Address
HERITAGE COMMERCIAL SERVICES, INC.
4125 POMPANOOR
CHARLOTTE, NC 28218

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)
NON-Hazardous Diesel Fuel Sludge, Combustible NA1993

12. Containers No.	13. Quantity	14. Unit
007	007	11.00 P

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

Printed/Typed Name: **Billy Ray Burnett Sr.**
 Signature: *[Signature]*
 Month Day Year: **05/16/90**

17. Transporter 1 Acknowledgement of Receipt of Materials
 Printed/Typed Name: **Christy Workman**
 Signature: *[Signature]*
 Month Day Year: **05/16/90**

18. Transporter 2 Acknowledgement of Receipt of Materials
 Printed/Typed Name: _____
 Signature: _____
 Month Day Year: _____

19. Discrepancy Indication Space

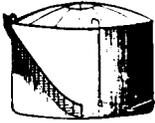
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: **Mike Pond**
 Signature: *[Signature]*
 Month Day Year: **05/16/90**

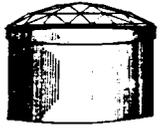
GENERATOR OR FACILITY

ATTACHMENT D

CERTIFICATE OF TANK DISPOSAL



PETROLEUM TANK SERVICE, INC.



SERVING THE PETROLEUM, CHEMICAL AND WATER WORKS INDUSTRY

SHOP LOCATION
7335 ORR ROAD
CHARLOTTE, N.C. 28213

NATION WIDE SERVICE
PHONE: (704) 597-1910
FAX: (704) 596-7233

MAILING ADDRESS
P.O. BOX 237
NEWELL, N.C. 28126

CERTIFICATE OF TANK DISPOSAL

This certifies that (1) 3000 GAL, (1) 4,000 GAL, (2) 5,000 GAL, (2) 2000 GAL TANKS (was) (were) properly disposed of in accordance with The American Petroleum Institutes Bulletin # 1604, Recommended Practice for Abandonment or Removal of Used Underground Service Station Tanks.

The (tank tanks) (were) (was) located at GRAHAM & PENMAN ST., CHARLOTTE, excavated on 5/2/90 - 5/4/90, flammable vapors were removed by adding (dry ice) (nitrogen). The (tank tanks) (were) (was) cold cut, vapors were continuously purged, then entered and cleaned thoroughly before being transported to 7335 Orr Road, in Charlotte, N. C., where (they) (it) (were) (was) cut into pieces.

The metal will be sold for scrap at some point in the future.

Welder's Signature X [Signature]

Petroleum Tank Service [Signature]

Date 10-1-90

* NOTE - PICTURES OF THE TANKS ARE ATTACHED

Tank Cleaning
Calibrating
Sandblasting

Tank Coating
Fiberglassing
Hot Welding

Gas Freeing
Lead Freeing
Lead Testing

AWWA Painting
Ultrasonic Testing
Gasless Drums

ATTACHMENT E

**LABORATORY DATA SHEETS
TANK EXCAVATIONS**



Industrial & Environmental Analysts, Inc.

P.O. Box 12846
Research Triangle Park, North Carolina 27709
(919) 677-0090
FAX (919) 677-0427

May 14, 1990

Don Hankins
ERM-Southeast, Inc.
7621 Little Avenue, Suite 216
Charlotte, NC 28226

Reference IEA Report No.: 538197
Project ID: 8010

Dear Mr. Hankins,

Transmitted herewith are the results of analyses on eight samples submitted to our laboratory.

Please see the enclosed reports for your results.

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Linda F. Mitchell
Director, Technical Support Services

State Certification:

Alabama - #40210	New Jersey - #67719	South Carolina - #99021
Georgia - #816	Tennessee - #00296	North Carolina - #37720
Kansas - #E-158	Virginia - #00179	#84



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-1	Date Received:	5-3-90
Client Sample No:	T1S	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-5-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 13 mg/kg. The quantitation limit is 2.0 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-2	Date Received:	5-3-90
Client Sample No:	T1N2	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-5-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 5800 mg/kg. The quantitation limit is 50 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 50 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Sample diluted due to the presence of target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-3	Date Received:	5-3-90
Client Sample No:	T2N	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-6-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 580 mg/kg. The quantitation limit is 50 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 50 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis.
Sample diluted due to the presence of target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-4	Date Received:	5-3-90
Client Sample No:	T2S2	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-6-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 8300 mg/kg. The quantitation limit is 200 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 200 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Sample diluted due to the presence of target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-5	Date Received:	5-3-90
Client Sample No:	T3N2	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-5-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 16000 mg/kg. The quantitation limit is 200 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 200 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Sample diluted due to the presence of target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-6	Date Received:	5-3-90
Client Sample No:	T3S2	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-5-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 10 mg/kg. The quantitation limit is 2.0 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-7	Date Received:	5-3-90
Client Sample No:	T4N2	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-5-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 260 mg/kg. The quantitation limit is 2.0 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No:	538-197-8	Date Received:	5-3-90
Client Sample No:	T4S	Date Extracted:	5-4-90
Client Project No:	8010	Date Analyzed:	5-6-90

Extraction (SW 846 - 3550) / GC-FID analysis (for diesel, kerosene)

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 7900 mg/kg. The quantitation limit is 200 mg/kg.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 200 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Sample diluted due to the presence of target compounds.



INDUSTRIAL & ENVIRONMENTAL
ANALYSTS, INC.
1901 NORTH HARRISON AVE.
CARY, N.C. 27513

CHAIN OF CUSTODY RECORD

NO: 0369

PROJECT #		PROJECT NAME					# CONTAINERS OF	MATRIX		REQUESTED PARAMETERS									
8010 CFS Charlotte, NC								SOIL	WATER	/									
SAMPLERS (SIGNATURE) <i>NW Hankins</i>																			
SAMPLE I.D.	DATE	TIME	COMP	GRAB	STATION LOCATION														
T1S	5-29	1104		X	Tank 1 south end		3	X	3	Normal 5 day TPH by GC turn around									
T1N2	"	1150		X	Tank 1 North end		3	X	3										
T2N	"	1527			Tank 2 north end														
T2S2	"	1550			Tank 2 south end														
T3N2	"	1400			Tank 3 north end														
T3S2	"	1421			Tank 3 south end														
T4N2	"	1510			Tank 4 north end														
T4S	"	1435			Tank 4 south end														
RELINQUISHED BY (SIGNATURE)			DATE	TIME	RECEIVED BY			DATE	TIME	IEA QUOTE NO.					IEA RUSH NO.				
<i>NW Hankins</i>			5-29	1700	Pony Express														
RELINQUISHED BY (SIGNATURE)			DATE	TIME	RECEIVED FOR LAB BY			DATE	TIME	PROJECT MANAGER (PLEASE PRINT)					P.O. NO.				
					<i>Elizabeth D. Gray</i>			5/3/90	12:00										
IEA REMARKS										FIELD REMARKS									
IEA # 538-197																			

ATTACHMENT F

**LABORATORY DATA SHEET
SOIL BORING SAMPLES**



Industrial & Environmental Analysts, Inc.

P.O. Box 12846
Research Triangle Park, North Carolina 27709
(919) 677-0090
FAX (919) 677-0427

July 31, 1990

Don Hankins
ERM-Southeast
7621 Little Avenue, Suite 216
Charlotte, NC 28226

Reference IEA Report No.: 538221
Project ID: 8010A

Dear Mr. Hankins,

Transmitted herewith are the results of analyses on five samples submitted to our laboratory.

Please see the enclosed reports for your results.

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Linda F. Mitchell
Director, Technical Support Services

State Certification:

Alabama - #40210	New Jersey - #67719	South Carolina - #99021
Georgia - #816	Tennessee - #00296	North Carolina - #37720
Kansas - #E-158	Virginia - #00179	#84



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-221-1 Date Received: 7-20-90
Client Sample No: B1 14-15' Date Extracted: 7-23-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 12 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-27-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-221-2 Date Received: 7-20-90
Client Sample No: B2 12-13' Date Extracted: 7-23-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 40 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-221-3 Date Received: 7-20-90
Client Sample No: B3 14-15' Date Extracted: 7-23-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 20 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-221-4 Date Received: 7-20-90
Client Sample No: B5 8-10' Date Extracted: 7-23-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-26-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 4000 mg/kg. The quantitation limit is 100 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Extract diluted due to the presence of target compounds.

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-221-5 Date Received: 7-20-90
Client Sample No: B5 12-14' Date Extracted: 7-23-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-25-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 49 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Extract diluted due to the presence of target compounds.

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Industrial & Environmental Analysts, Inc.

P.O. Box 12846

Research Triangle Park, North Carolina 27709

(919) 677-0090

FAX (919) 677-0427

August 1, 1990

Don Hankins
ERM-Southeast
7621 Little Avenue, Suite 216
Charlotte, NC 28226

Reference IEA Report No.: 538222
Project ID: 8010A

Dear Mr. Hankins,

Transmitted herewith are the results of analyses on seven samples submitted to our laboratory.

Please see the enclosed reports for your results.

Very truly yours,

INDUSTRIAL & ENVIRONMENTAL ANALYSTS, INC.

Linda F. Mitchell
Director, Technical Support Services

State Certification:

Alabama - #40210

Georgia - #816

Kansas - #E-158

New Jersey - #67719

Tennessee - #00296

Virginia - #00179

South Carolina - #99021

North Carolina - #37720

#84



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-222-1 Date Received: 7-23-90
Client Sample No: B4 8'-10' Date Extracted: 7-24-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 2500 mg/kg. The quantitation limit is 20 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Extract diluted due to the presence of target compounds.

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-25-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 25 mg/kg.

Comment:

Quantitation limit elevated due to sample dilution prior to analysis. Sample diluted due to the presence of non-target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-222-2 Date Received: 7-23-90
Client Sample No: B4 13'-14' Date Extracted: 7-24-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 2.8 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-25-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-222-3 Date Received: 7-23-90
Client Sample No: B6 10'-12' Date Extracted: 7-24-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 1900 mg/kg. The quantitation limit is 20 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Extract diluted due to the presence of target compounds.

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-25-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 25 mg/kg.

Comment:

Quantitation limit elevated due to sample dilution prior to analysis. Sample diluted due to the presence of non-target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-222-4 Date Received: 7-23-90
Client Sample No: B6 12'-14' Date Extracted: 7-24-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 1300 mg/kg. The quantitation limit is 20 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Extract diluted due to the presence of target compounds.

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 12 mg/kg.

Comment:

Quantitation limit elevated due to sample dilution prior to analysis. Sample diluted due to the presence of non-target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-222-5 Date Received: 7-23-90
Client Sample No: B7 10'-12' Date Extracted: 7-24-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-25-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 480 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 12 mg/kg.

Comment:

Quantitation limit elevated due to sample dilution prior to analysis. Sample diluted due to the presence of non-target compounds.



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-222-6 Date Received: 7-23-90
Client Sample No: BB 6'-8' Date Extracted: 7-24-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 22 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 538-222-7 Date Received: 7-23-90
Client Sample No: B8 10'-12' Date Extracted: 7-24-90
Client Project No: 8010A

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 7-24-90

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 62 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 7-26-90

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:



INDUSTRIAL & ENVIRONMENTAL
ANALYSTS, INC.
1901 NORTH HARRISON AVE.
CARY, N.C. 27513

CHAIN OF CUSTODY RECORD

NO: 1915

PROJECT #		PROJECT NAME					# CONTAINERS OF	MATRIX		REQUESTED PARAMETERS									
SAMPLERS: (SIGNATURE)								SOIL	WATER	/ / / / / / / / / / / / / / / /									
SAMPLE I.D.	DATE	TIME	COMP	GRAB	STATION LOCATION														
8010A Ramcon Charlotte, NC										TPH by GC suspected (diesel fuel)									
[Signature]																			
B114-15'	7-18	1630		✓	Boring 1	3	✓	3											
B24-13'	7-19	1630		✓	" 2	3	✓	3											
B34-15'	"	1300		✓	" 3	3	✓	3											
B58-10'	"	1630		✓	" 5	3	✓	3											
B512-14'	"	1700		✓	" 5	3	✓	3											
RELINQUISHED BY (SIGNATURE)							DATE	TIME	RECEIVED BY	DATE	TIME	IEA QUOTE NO.				IEA RUSH NO.			
[Signature]							7-19	1900	Fed Ex	7-19	1900								
RELINQUISHED BY (SIGNATURE)							DATE	TIME	RECEIVED FOR LAB BY	DATE	TIME	PROJECT MANAGER (PLEASE PRINT)				P.O. NO.			
									[Signature]	7/20/08	50am								
IEA REMARKS										FIELD REMARKS									
IEA # 538-221																			

ATTACHMENT G

SITE SENSITIVITY EVALUATION

Figure 2

Site Sensitivity Evaluation (SSE)

Guidelines for Remediation of Soil Contaminated by Petroleum
North Carolina Division of Environmental Management

Characteristic	Condition	Rating	
Soil pH	pH < 5.0 or pH > 9.0	4	<input type="checkbox"/>
	8.0 < pH < 9.0	2	
	5.0 ≤ pH < 6.0	2	
	6.0 ≤ pH ≤ 8.0	0	
Grain Size* Udden-Wentworth Scale	Contains >2/3, Gravel to Coarse Sand, (>1/2mm)	10	<input type="checkbox"/>
	Contains >2/3, Medium to Fine Sand (<1/2mm - 1/8mm)	7	
	Contains >2/3, Very Fine Sand to Coarse Silt (<1/8mm - 1/32mm)	4	
	Contains >2/3, Medium Silt and Clay (<1/32mm)	0	
Are Relict Structures, Sedimentary Structures, and/or Textures present in the zone of contamination & underlying "soils"	Present and Intersecting the Seasonal High Water Table	10	<input type="checkbox"/>
	Present but not Intersecting the Seasonal High Water Table	5	
	None Present	0	
Contaminant Class	I Low to Medium Boiling Point Hydrocarbons [C1-C15] and "some military jet fuels"	10	<input type="checkbox"/>
	II High Boiling Hydrocarbons [C12-C20] and "other jet fuels"	5	
Distance from Location of Deepest Contaminated Soil (>10 ppm TPH) to Seasonal High Water Table	5 - 10 feet	10	<input type="checkbox"/>
	>10-40	5	
	>40 feet	0	
Is the Top of Bedrock located above the Seasonal Low Water Table ?	Yes	5	<input type="checkbox"/>
	No	0	
Is a Confining Layer present between bottom of contaminated soil and water table ?	No	5	<input type="checkbox"/>
	Yes	0	
Time since release of contaminant has occurred	>1 yr. or unknown	10	<input type="checkbox"/>
	6 months-1 year	5	
	<6 months	0	
Artificial Conduits present within the zone of contamination	Present & Intersecting the Seasonal High Water Table	10	<input type="checkbox"/>
	Present but not intersecting the Seasonal High Water Table	5	
	Not Present	0	

* Figure 3

**TOTAL
SCORE**

	Site Sensitivity Evaluation Score	Maximum Soils Cleanup Level ppm of TPH
Very Sensitive	>44	10
.	36-43	35
.	21-35	60
Least Sensitive	5-20	85