



RECEIVED
DEC 06 1993

Raleigh, NC
919-876-5115
Charlotte, NC
704-527-5115

November 30, 1993

Mr. Richard King
Public Service and Facilities
Post Office Box 1810
Wilmington, North Carolina 28402

Subject: Wilmington Transit Authority
Soil Sampling and Analysis
Triangle Project No. 122-0201

Dear Mr. King:

Triangle Environmental, Inc. (Triangle) has completed the Soil Sampling and Analysis at the Wilmington Transit Authority Site. Please find below a summary of our findings.

BACKGROUND

The Wilmington Transit Authority (WTA), owned by the City of Wilmington, is located at 1110 Castle Street, Wilmington, North Carolina. The facility is used to park, maintain, and service public transport buses for the City of Wilmington. The facility is currently in operation.

Prior to their removal on July 10, 1991, four underground storage tanks (USTs) were located at the site. These included two diesel tanks, one old diesel or heating oil tank and one used oil tank. Field evidence during removal of the tanks indicated a release from the area of the diesel or heating oil tanks and from the used oil tank. The amount of release is unknown. A new 10,000 gallon diesel UST was installed in an excavation which showed no signs of a release and is connected to the old dispenser pump. This new UST system is in current operation.

Several groundwater assessments have been conducted for this site and their results have been previously submitted to the North Carolina Division of Environmental Management (DEM), Groundwater Section. The data from the last round of groundwater sampling, May 1993, suggested a dissolved-phase contaminant plume originating in the area of the dispenser island. No reports could be found stating whether this area was ever assessed for soil contamination. Because contaminated soils could be a source of contaminants, it was decided to sample the soils around the dispenser island.

DEC 10 1933
U.S. DEPARTMENT OF AGRICULTURE

FIELD ACTIVITIES

On November 11, 1993, two Triangle environmental technicians advanced five soil borings to approximately five feet below grade. The attached figure shows the locations of the soil borings. All five borings started by cutting a 4-inch core through the concrete parking surface. A decontaminated 3 1/4-inch hand auger was used to advance to five feet and collect soil samples. After sampling, the holes were backfilled and plugged with a six-inch cement patch.

Visible contamination and strong petroleum odors were noted in the soils starting immediately below the concrete and continuing to five feet in borings WT1, WT2, and WT3. Borings WT4 and WT5 had no field evidence of contamination. The soil was a sand in all five borings. Groundwater was not encountered in any borings, but field data and earlier assessments indicate that groundwater was close. Five feet below grade may be within the zone of seasonally fluctuating water table.

The soil samples were placed in laboratory-supplied glassware, immediately stored on ice, and shipped to an independent laboratory using EPA-approved chain-of-custody procedures. The samples were analyzed for Total Petroleum Hydrocarbons (TPH) using EPA Methods 5030, 3550, and 9071. Method 5030 is most sensitive to low boiling point fuels such as gasoline, Method 3550 is most sensitive to medium boiling point fuels such as diesel, and Method 9071 will measure high boiling point fuels such as fuel oil #6, but will also measure any hydrocarbon from diesel to asphalt. It was decided to run all three methods on most samples since the contaminant was old and appeared to be a heavy fuel oil; but kerosene, and possibly diesel, were also suspected as being present. Sample WT5B was also analyzed using Method 8021 because of its proximity to the former used oil tank.

LABORATORY RESULTS

A summary table and a copy of the laboratory results may be found attached to this letter. Concentrations of TPH were measured in the soils above Final Clean-up Levels determined in a Site Sensitivity Evaluation for the site (see attached).

It is important to note the sub-equal levels of TPH₅₀₃₀ and TPH₃₅₅₀. This is not typical for a diesel fuel. Kerosene, however, is a fuel that contains many petroleum compounds in between gasoline and diesel, and these lab results may indicate a kerosene fuel. A mixture of gasoline and diesel would also give the same results, but there is no record of gasoline being used at the WTA site. In most cases TPH₉₀₇₁ is similar to TPH₃₅₅₀. This indicates that Method 9071 is measuring the same fuel as TPH₃₅₅₀ rather than a separate, heavy fuel.

SUMMARY AND RECOMMENDATIONS

Triangle Environmental, Inc. (Triangle) has completed the advancement and sampling of five soil borings at the Wilmington Transit Authority and associated laboratory analysis. The purpose of this study was to determine if there was soil contamination in the area of the diesel dispenser pump island and dispenser line located at the site. Soil contamination was identified in the samples near the dispenser pump island, but not in the sample near the dispenser line. The zone of contamination appears to a minimum of 8' by 30' by 5' deep. Within this limited area there is an operating dispenser pump island and also a storm drain.

Visually, the contamination in the soils appeared to be from an old release, (black in color and viscous), rather than from a recent diesel release. Triangle's senior technician noted that the contaminant smelled something like K1 (kerosene) and the TPH 3550/5030 analysis of the soils is not typical for a diesel. It does not appear that the main soil contamination is from a recent release associated with the currently operating diesel UST system. It appears that the contamination is associated with the old UST which was closed-by-removal in July 1991. This tank was reportedly last used in 1965. There are no records of its contents, but according to site personnel, the tank was either a heating fuel UST or a diesel UST.

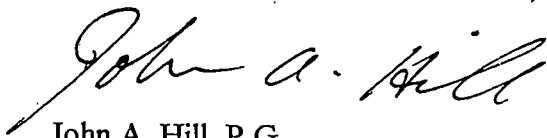
Because the zone of soil contamination extends to the shallow groundwater table, it is a probable source for the groundwater contamination observed in the on-site monitoring wells. Even though this contaminated soil results in only low levels of groundwater contamination, it will be a continuing source for many years unless removed or remediated.

Triangle Environmental, Inc. is reviewing several options for soil treatment/removal and will submit separately from this letter its recommendation for corrective action at the Wilmington Transit Authority Site.

Triangle Environmental, Inc. appreciates this opportunity to continue our relationship with the City of Wilmington in providing environmental consulting services. If there are questions or comments regarding this report, please do not hesitate to contact us at (919) 876-5115.

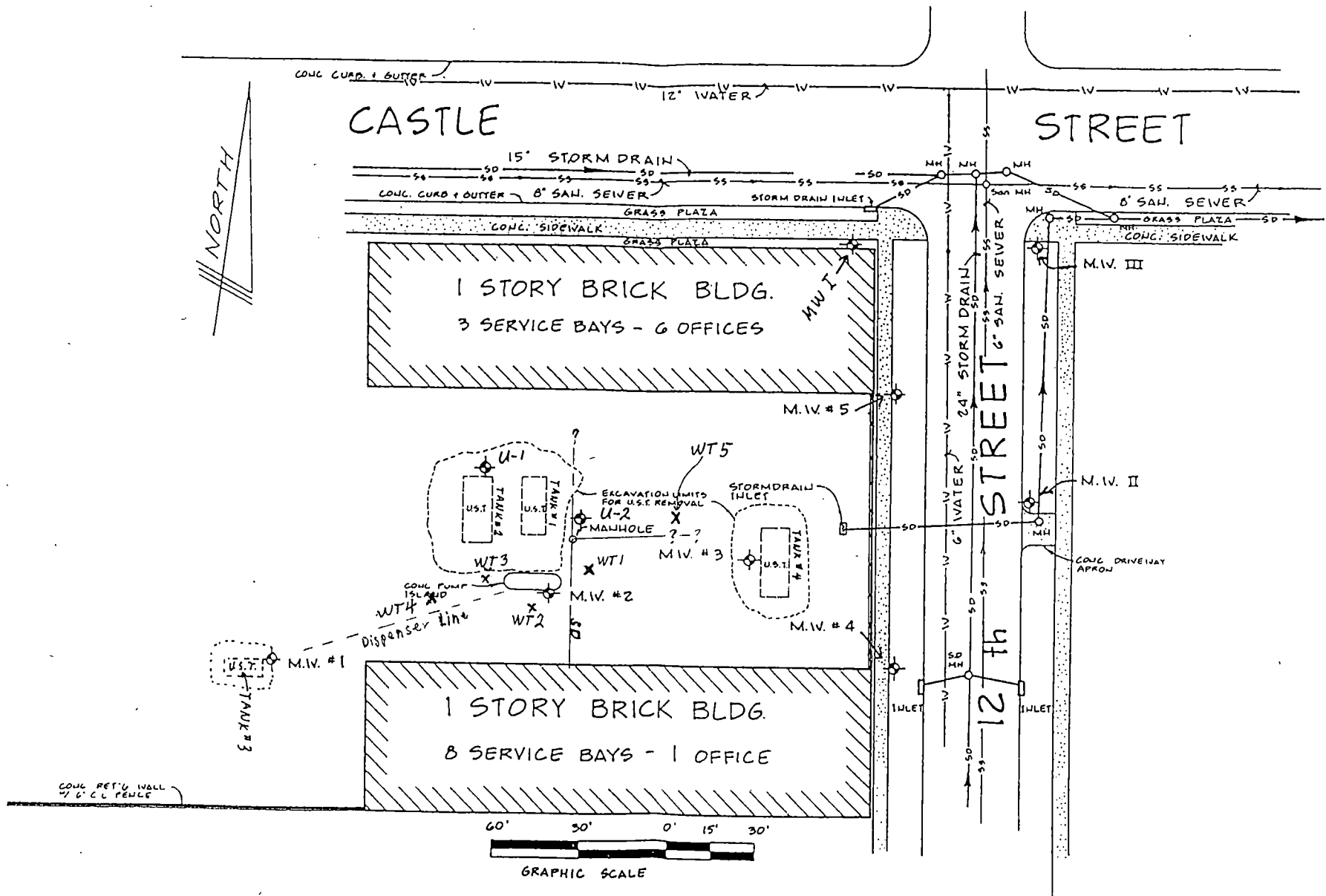
Sincerely,

TRIANGLE ENVIRONMENTAL, INC.



John A. Hill, P.G.
Staff Geologist

/ra
Enclosure



Modified from Right Angle Engineering's Report

Project: Wilmington Transit Authority
 Wilmington, NC (New Hanover Co.)
 Former UST Site Assessment

Title: Site Map

Job: 122-0101

Figure:

Scale: 1"=50'

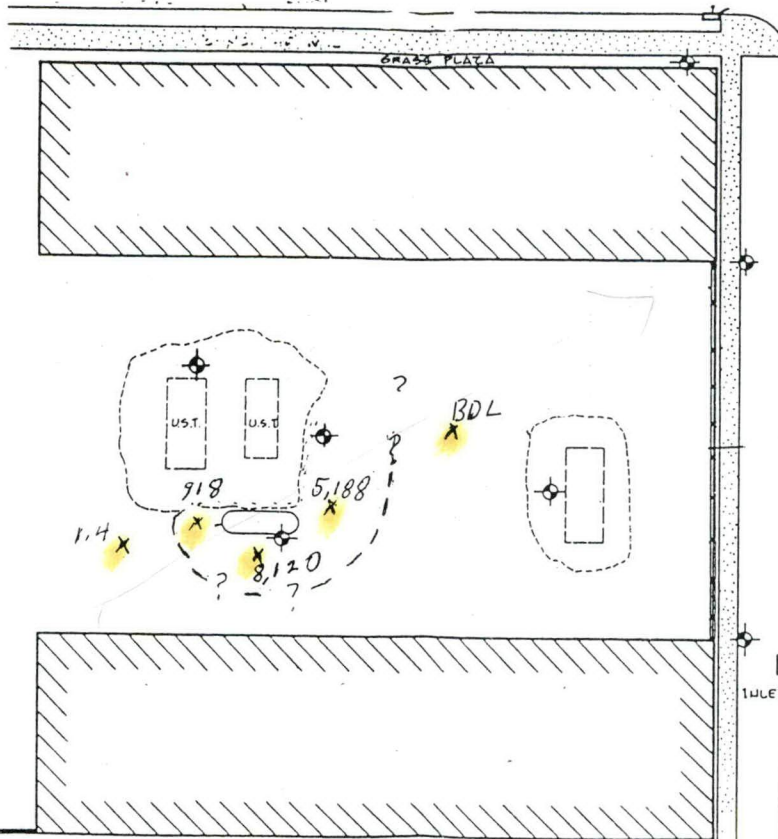


P.O. Box 41087
 Raleigh, NC 27629
 919-876-5115
 800-849-5115
 919-790-8273 FAX

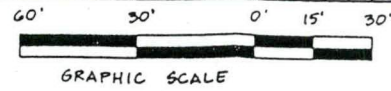


CASTLE

STREET



Legend
 x - Soil Borings
 8,120 - TPH(503,3550)
 (mg/kg)



CONC. RET'G. WALL
7' 6" C.L. FENCE

Project: **Wilmington Transit Authority**
Wilmington, NC (New Hanover Co.)
Former UST Site Assessment

Title: *Zone of Soil Contamination 5'*

Job: 122-0101	Figure:	Scale: 1"=50'
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P.O. Box 41087
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Table - Previous Laboratory Data Summary

**Wilmington Transit Authority
Triangle Project No. 122-0101**

Sample No.	Sample Date	Sample Depth (ft)	EPA 5030	EPA 3550	EPA 9071	Comments
WT1A	11/11/93	3	NM	5130	6686	odor
WT1B	11/11/93	5	4980	2720	2468	odor
WT2C	11/11/93	5	4280	3840	5939	odor
WT3B	11/11/93	5	BDL[122]	918	463	odor
WT4B	11/11/93	5	BDL[2.6]	1.37	NM	no odor
WT5B	11/11/93	5	NM	BDL[1.0]	70	no odor
						WT5B EPA 8021-BDL
SSE FINAL CLEAN-UP LEVEL			60	240	1200	

BDL - Below Detection Limits: Values in brackets [] are minimum detection limits
 NM - Not Measured

H Y D R O L O G I C , I N C .

November 23, 1993

REPORTING:

HydroLogic-Morris., Inc.
2500 Gateway Centre
Suite #900
Morrisville, NC 27560

Attention: Jackie Baker

INVOICING:

HydroLogic-Morris., Inc.
2500 Gateway Centre
Suite #900
Morrisville, NC 27560

PROJECT NUMBER: FL932834

DATE COMPLETED: November 23, 1993

DATE RECEIVED: November 13, 1993

Post-It™ brand fax/transmittal memo 7671 # of pages 16

To	From
Co.	Co.
Dept.	Phone #
Fax #	Fax #

PROJECT DESCRIPTION:

#122-0101--3 soil samples to be anal, ... 3550/5030/9071, 1 soil sample to be analyzed for 3550/5030, 1 soil sample to be analyzed for 3550/9071/8021, and 1 soil sample to be analyzed for 3550/9071; sampled on 11/11/93.

Enclosed is the laboratory report for the project described above. If you have any questions or if we can be of further assistance, please feel free to contact us. We appreciate your business and look forward to serving you again soon.

Respectfully,

Benjamin Carl Esterle
Benjamin Carl Esterle
Laboratory Director

H Y D R O L O G I C , I N C .

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #122-0101
HYDROLOGIC PROJECT NUMBER: FL932834
HYDROLOGIC SAMPLE NUMBER: 23477
SAMPLE IDENTIFICATION: WFLA
DATE SAMPLED: 11/11/93
DATE EXTRACTED: 11/18/93
DATE/TIME ANALYZED: 11/20/93

METHOD TPH 3850

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
Diesel		100	5150

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: DILUTION FACTOR X 100

H Y D R O L O G I C , I N C .

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #122-0101
HYDROLOGIC PROJECT NUMBER: FL932834
HYDROLOGIC SAMPLE NUMBER: 23477
SAMPLE IDENTIFICATION: WT1A
DATE SAMPLED: 11/11/93

<u>ANALYSIS</u>	<u>DATE/TIME ANALYZED</u>	<u>METHOD</u>	<u>UNITS</u>	<u>SDL</u>	<u>RESULT</u>
Oil and Grease	11/17/93	TPH 9071	mg/kg	10	6686

EDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS:

H Y D R O L O G I C , I N C .

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #122-0101
HYDROLOGIC PROJECT NUMBER: FL932834
HYDROLOGIC SAMPLE NUMBER: 23472
SAMPLE IDENTIFICATION: WT1B
DATE SAMPLED: 11/11/93
DATE EXTRACTED: 11/18/93
DATE/TIME ANALYZED: 11/20/93 11/22/93

METHOD TPH 3550/5030

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
Diesel		100	2720
Gasoline		1240	4980

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: DIESEL-DILUTION FACTOR X 100; GASOLINE-DILUTION FACTOR X 1000

H Y D R O L O G I C , I N C .

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #122-0101
HYDROLOGIC PROJECT NUMBER: FL932834
HYDROLOGIC SAMPLE NUMBER: 23472
SAMPLE IDENTIFICATION: WT1B
DATE SAMPLED: 11/11/93

<u>ANALYSIS</u>	<u>DATE/TIME ANALYZED</u>	<u>METHOD</u>	<u>UNITS</u>	<u>SDL</u>	<u>RESULT</u>
Oil and Grease	11/17/93	TPH 9071	mg/kg	10	2468

BDL - Below Sample Detection Limit
SDL - Sample Detection Limit

COMMENTS: _____

COMPANY NAME: HydroLogic-Morris., Inc.
 COMPANY PROJECT NUMBER: #122-0101
 HYDROLOGIC PROJECT NUMBER: FL932834
 HYDROLOGIC SAMPLE NUMBER: 23473
 SAMPLE IDENTIFICATION: WT2C
 DATE SAMPLED: 11/11/93
 DATE EXTRACTED: 11/18/93
 DATE/TIME ANALYZED: 11/20/93 11/22/93

METHOD TPH 3550/5030

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Diesel		100	3840
Gasoline		1190	4280

BDL = Below Sample Detection Limit
 SDL = Sample Detection Limit

COMMENTS: DIESEL-DILUTION FACTOR X 100; GASOLINE-DILUTION FACTOR X 1000

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #122-0101
HYDROLOGIC PROJECT NUMBER: FL932834
HYDROLOGIC SAMPLE NUMBER: 23473
SAMPLE IDENTIFICATION: WT2C
DATE SAMPLED: 11/11/93

<u>ANALYSIS</u>	<u>DATE/TIME ANALYZED</u>	<u>METHOD</u>	<u>UNITS</u>	<u>SDL</u>	<u>RESULT</u>
Oil and Grease	11/17/93	TPH 9071	mg/kg	10	5939

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____

1491 Twilight Trail Frankfort, KY 40601 502/223-0251 FAX 502/875-8016 Toll Free 1-800/728-2251

COMPANY NAME: HydroLogic-Morris., Inc.
COMPANY PROJECT NUMBER: #122-0101
HYDROLOGIC PROJECT NUMBER: FL932834
HYDROLOGIC SAMPLE NUMBER: 23474
SAMPLE IDENTIFICATION: WT3B
DATE SAMPLED: 11/11/93
DATE EXTRACTED: 11/18/93
DATE/TIME ANALYZED: 11/20/93 11/22/93

METHOD TPH 3550/5030

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
Diesel		10	918
Gasoline		122	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: DIESEL-DILUTION FACTOR X 10; GASOLINE-DILUTION FACTOR X 100 DETECTION LIMIT
RAISED DUE TO THE PRESENCE OF A HEAVIER FUEL.

COMPANY NAME: HydroLogic-Morris., Inc.
 COMPANY PROJECT NUMBER: #122-0101
 HYDROLOGIC PROJECT NUMBER: FL932834
 HYDROLOGIC SAMPLE NUMBER: 23474
 SAMPLE IDENTIFICATION: WT3B
 DATE SAMPLED: 11/11/93

<u>ANALYSIS</u>	<u>DATE/TIME ANALYZED</u>	<u>METHOD</u>	<u>UNITS</u>	<u>SDL</u>	<u>RESULT</u>
Oil and Grease	11/17/93	TPH 9071	mg/kg	10	463

BDL = Below Sample Detection Limit
 SDL = Sample Detection Limit

COMMENTS: _____

1491 Twilight Trail □ Frankfort, KY 40601 □ 502/223-0251 □ FAX 502/875-8016 □ Toll Free 1-800/728-2251

COMMENTS:

BOL = Below Sample Detection Limit
SDL = Sample Detection Limit

ANALYSIS	CAN NO.	SDL (mg/l)	RESULT (mg/l)
Diesel		1.0	1.37
Gasoline		2.6	BOL

METHOD EPA 8000/8030

COMPANY NAME: HydroLogic-Morris, Inc. #122-0101
 COMPANY PROJECT NUMBER:
 HYDROLOGIC PROJECT NUMBER: RL932834
 HYDROLOGIC SAMPLE NUMBER: 23475
 SAMPLE IDENTIFICATION: W14B
 DATE SAMPLED: 11/11/93
 DATE EXTRACTED: 11/18/93
 DATE/TIME ANALYZED: 11/19/93

COMPANY NAME: HydroLogic-Morris., Inc.
 COMPANY PROJECT NUMBER: #122-0101
 HYDROLOGIC PROJECT NUMBER: FL932834
 HYDROLOGIC SAMPLE NUMBER: 23476
 SAMPLE IDENTIFICATION: WISB
 DATE SAMPLED: 11/11/93
 DATE EXTRACTED: 11/18/93
 DATE/TIME ANALYZED: 11/19/93

METHOD TPH 3550

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
Diesel		1.0	BDL

BDL = Below Sample Detection Limit
 SDL = Sample Detection Limit

COMMENTS: _____

H · Y · D · O · R · O · L · O · G · I · C · I · N · C

COMPANY NAME: Hydrologic-Horls, Inc.
 COMPANY PROJECT NUMBER: #122-0101
 HYDROLOGIC PROJECT NUMBER: RL932834
 HYDROLOGIC SAMPLE NUMBER: 23476
 SAMPLE IDENTIFICATION: WISB
 DATE SAMPLED: 11/11/93
 DATE EXTRACTED: N/A
 DATE/TIME ANALYZED: 11/18/93

METHOD EPA 8021

ANALYSIS	CAS NO.	SDL (mg/kg)	RESULT (mg/kg)
Benzene	71-43-2	0.005	BDL
Brombenzene	108-86-1	0.005	BDL
Bromochloromethane	74-97-5	0.005	BDL
Bromodichloromethane	75-27-4	0.005	BDL
Bromoform	75-25-2	0.005	BDL
Bromomethane	74-83-9	0.005	BDL
n-Butylbenzene	104-51-8	0.005	BDL
sec-Butylbenzene	135-98-8	0.005	BDL
tert-Butylbenzene	98-06-6	0.005	BDL
Carbon Tetrachloride	56-23-5	0.005	BDL
Chlorobenzene	108-90-7	0.005	BDL
Chloroethane	75-00-3	0.005	BDL
Chloroform	67-66-3	0.005	BDL
Chloromethane	74-87-3	0.005	BDL
2-Chlorotoluene	95-45-8	0.005	BDL
4-Chlorotoluene	106-43-4	0.005	BDL
Dibromochloromethane	124-48-1	0.005	BDL
1,2-Dibromo-3-chloropropane	96-12-8	0.005	BDL
1,2-Dibromomethane	106-93-4	0.005	BDL
Dibromomethane	74-95-3	0.005	BDL
1,2-Dichlorobenzene	95-50-1	0.005	BDL
1,3-Dichlorobenzene	541-73-1	0.005	BDL
1,4-Dichlorobenzene	106-46-7	0.005	BDL
Dichlorodifluoromethane	75-71-8	0.005	BDL
1,1-Dichloroethane	75-34-3	0.005	BDL

Page 2 continued

COMPANY NAME: HydroLogic-Morris., Inc.
 COMPANY PROJECT NUMBER: #122-0101
 HYDROLOGIC PROJECT NUMBER: FL932834
 HYDROLOGIC SAMPLE NUMBER: 23476
 SAMPLE IDENTIFICATION: WTSB
 DATE SAMPLED: 11/11/93

METHOD EPA 8021

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (mg/kg)	<u>RESULT</u> (mg/kg)
1,2-Dichloroethane	107-06-2	0.005	BDL
1,1-Dichloroethane	75-35-4	0.005	BDL
cis-1,2-Dichloroethane	156-59-4	0.005	BDL
trans-1,2-Dichloroethane	156-60-5	0.005	BDL
1,2-Dichloropropane	78-87-5	0.005	BDL
1,3-Dichloropropane	142-28-9	0.005	BDL
2,2-Dichloropropane	590-20-7	0.005	BDL
1,1-Dichloropropene	563-58-6	0.005	BDL
Ethylbenzene	100-41-4	0.005	BDL
Hexachlorobutadiene	87-68-3	0.005	BDL
Isopropylbenzene	98-82-8	0.005	BDL
p-Isopropyltoluene	99-87-6	0.005	BDL
Methylene Chloride	75-09-2	0.005	BDL
Naphthalene	91-20-3	0.005	BDL
n-Propylbenzene	103-65-1	0.005	BDL
Styrene	100-42-5	0.005	BDL
1,1,1,2-Tetrachloroethane	630-20-6	0.005	BDL
1,1,2,2-Tetrachloroethane	79-34-5	0.005	BDL
Tetrachloroethene	127-18-4	0.005	BDL
Toluene	108-88-3	0.005	BDL
1,2,3-Trichlorobenzene	87-61-6	0.005	BDL
1,2,4-Trichlorobenzene	120-82-1	0.005	BDL
1,1,1-Trichloroethane	71-55-6	0.005	BDL
1,1,2-Trichloroethane	79-00-5	0.005	BDL

COMPANY NAME: Hydrologic-Morris, Inc. #122-0101
 COMPANY PROJECT NUMBER:
 HYDROLOGIC PROJECT NUMBER: #1932834
 HYDROLOGIC SAMPLE NUMBER: 23476
 SAMPLE IDENTIFICATION: WTSB
 DATE SAMPLED: 11/11/93

METHOD EPA 8021

ANALYSIS	CAS NO.	SRL (mg/kg)	RESULT (mg/kg)
Trichloroethane	79-01-6	0.005	BDL
Trichloroethylene	75-69-4	0.005	BDL
1,2,3-Trichloropropane	96-18-4	0.005	BDL
1,2,4-Trimethylbenzene	95-63-6	0.005	BDL
1,3,5-Trimethylbenzene	108-67-8	0.005	BDL
Vinyl Chloride	75-01-4	0.005	BDL
o-Xylene	95-47-6	0.005	BDL
m-Xylene	108-38-3	0.005	BDL
p-Xylene	106-42-3	0.005	BDL

BDL = Below Sample Detection Limit
 SRL = Sample Detection Limit

COMMENTS:

COMPANY NAME: Hydrologic-Morris, Inc.
COMPANY PROJECT NUMBER: #122-0101

HYDROLOGIC PROJECT NUMBER: H1932834

23476

HYDROLOGIC SAMPLE NUMBER: W15B

11/11/93

DATE SAMPLED:

ANALYSIS DATE/TIME ANALYZED

METHOD UNITS SOL RESULT
TBH 9071 mg/kg 10 70

Oil and Grease

11/17/93

BDL = Below Sample Detection Limit
BDL = Sample Detection Limit

COMMENTS:

CHAIN OF CUSTODY

PO #

755

Method of Shipment

ATTN TO:
John Hill
Triangle Environmental
Raleigh, NC

HydroLogic, Inc.
 2500 Gateway Centre Blvd., Suite 900
 Morrisville, NC 27560
 800-241-4174
 919-380-9699

PAGE 1 OF 1

934278

HYDROLOGIC RTP

CLIENT: <u>Wilmington Transit Authority</u>				PROJECT ID #:				
PHONE: <u>878-5115</u>				VERBAL				
PROJ #: <u>122-0101</u>		PO #: <u>755</u>		FAX COPY		HARD COPY		
SAMPLER: <u>C. Boshoff</u>				REMARKS				
FIELD ID	SAMPLE MATRIX	TIME COLLECTED	DATE COLLECTED	TPH 3550	TPH 5080	TPH 9071	8021	
WT1B	Soil	1135	11/11/93	✓	✓	✓		
WT2C	Soil	1215	11/11/93	✓	✓	✓		
WT3B	Soil	1255	11/11/93	✓	✓	✓		
WT4B	Soil	1510	11/11/93	✓	✓			
WT5B	Soil	1550	11/11/93	✓		✓	✓	
WT1A	Soil	1115	11/11/93	✓	✓	✓		
RELINQUISHED BY: <u>[Signature]</u>				DATE / TIME: <u>11/12/93 1430</u>		RECEIVED BY: <u>[Signature]</u>		DATE / TIME: <u>11/12</u>
RELINQUISHED BY:				DATE / TIME:		RECEIVED BY:		DATE / TIME:
RELINQUISHED BY:				DATE / TIME:		RECEIVED BY:		DATE / TIME:

TOTAL P. 021

Table 1
Site Sensitivity Evaluation (SSE)
 Site Characteristics Evaluation (Step 1)

Characteristic	Condition	Rating	
Grain Size*	Gravel	150	
	<u>Sand</u>	100 ✓	
	Silt	50	
	Clay	0	
			100
Are relict structures, sedimentary structures, and/or textures present in the zone of contamination and underlying "soils"?	Present and intersecting the water table.	10	
	<u>Present but not intersecting the water table.</u> <i>Lined sand</i>	<u>5</u>	
	None present.	0	
			5
Distance from location of deepest contaminated soil** to water table.	<u>0</u> -5 feet (C, D & E sites only)	<u>20</u>	
	5 - 10 feet	20	
	>10 - 40 feet	10	
	> 40 feet	0	
Is the top of bedrock or transmissive indurated sediments located above the water table?	Yes	20	
	<u>No</u>	0	
			0
Artificial conduits present within the zone of contamination.	Present and intersecting the water table.	10	
	<u>Present but not intersecting the water table.</u>	<u>5</u>	
	Not present.	0	
			5

Total Site Characteristics Score: 130

* **Predominant** grain size based on Unified Soil Classification System or U.S. Dept. of Agriculture's Soil Classification Method.
 ** (>10 ppm TPFH by Method 5030; >40 ppm TPFH by Method 3550; >250 ppm O&G by Method 9071)

Table 2

Site Sensitivity Evaluation (SSE)

Initial Cleanup Level
(Step 2)

Final Cleanup Level
(Step 3)

**EPA Method 5030 for
Low Boiling Point Hydrocarbons
such as Gasoline, Aviation Fuels, Gasohol**

Total Site Characteristics Score	Initial Cleanup Level TPFH (ppm)	Select Site Category*	Category A & B (Multiply initial cleanup level by 1)	Final Cleanup Level
>150	≤10	Select Site Category* →	1 x _____ = _____ ppm	
121-150	<u>20</u>		2 x _____ = _____ ppm	
91-120	40			
61-90	60			
31-60	80			
0-30	100		3 x <u>20</u> = <u>60</u> ppm	

**EPA Method 3550 for
High Boiling Point Hydrocarbons
such as Kerosene, Diesel, Varsol, Mineral Spirits, Naphtha**

Total Site Characteristics Score	Initial Cleanup Level TPFH (ppm)	Select Site Category*	Category A & B (Multiply initial cleanup level by 1)	Final Cleanup Level
>150	≤40	Select Site Category* →	1 x _____ = _____ ppm	
121-150	<u>80</u>		2 x <u>80</u> = _____ ppm	
91-120	160			
61-90	240			
31-60	320			
0-30	400		3 x <u>80</u> = <u>240</u> ppm	

**EPA Method 9071 for
Heavy Fuels - Oil & Grease (O&G)
such as Fuel Oil #4, #5, #6, Motor Oil, Hydraulic Fluid**

Total Site Characteristics Score	Initial Cleanup Level O&G (ppm)	Select Site Category*	Category A & B (Multiply initial cleanup level by 1)	Final Cleanup Level
>150	≤250	Select Site Category* →	1 x _____ = _____ ppm	
121-150	<u>400</u>		2 x _____ = _____ ppm	
91-120	550			
61-90	700			
31-60	850			
0-30	1000		3 x <u>400</u> = <u>1,200</u> ppm	

* See Site Category Descriptions, Table 3