GUILFORD COUNTY
DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH

APPLICATION FOR PERMIT TO CONSTRUCT A MONITORING/RECOVERY WELL SYSTEM

Date: 4/21/97

In accordance with the provisions of the Guilford County Board of Health Rules and Regulations Governing the Construction and Abandonment of Monitoring and Recovery Wells, application is hereby made for a permit to construct monitoring/recovery wells.

1. Site Name: Former Elm Street Sunoco Incident #: 10076
2. Address of Well: 2903 Elm Street, Greensboro, NC
3. Name of Well Owner: Sun Company, Inc. Telephone: 610-859-5705
4. Owner's Mailing Address: 4041 Market Street, Aston,PA 19014
5. Property Owner (if different from well owner): _____
6. Property Owners' Mailing Address: _____
7. Reason for Monitoring Well(s): Environmental Assessment
   (e.g. nondischarge permit, suspected contamination, environmental assessment, etc.)
8. Type of facility for which the well is needed: Underground Storage Tank
   (e.g. nondischarge facility, waste disposal site, landfill, underground storage tank, etc.)
9. Contaminant type (if applicable): Organics
   (e.g. nutrients, organics, heavy metals, etc.)
10. Are there existing recovery wells associated with the monitoring well(s)? No
    If yes, how many? _____ Number of new/additional recovery well(s) to be installed _____
11. Distance to a known waste or pollution source: Various feet
12. Are any water supply wells located <500 feet from the proposed well? No
    If yes, give distance : _____ feet
13. Well Driller: Various
14. Registration #: Various
15. Driller's Address: Various

    Telephone: _____

Fee: $ 200 -
Date Paid: 5-5-97
Receipt# : 15372

(Continued on Reverse)

PROPOSED MONITORING/RECOVERY WELL CONSTRUCTION INFORMATION

1. Total number of wells to be constructed: 6 Number to be completed in bedrock: None

   Number to be completed in unconsolidated material: 6

2. Estimated depth of well(s): 30 feet

3. Gravel or sand pack interval (if appropriate): From 15 feet to 30 feet

4. Type of casing used: PVC
   (i.e. PVC, stainless steel, galvanized steel, etc.)

5. Diameter of casing: 2 inches Thickness of casing: _____ inches

6. How will the well(s) be secured? Locking Well Cap

7. Beginning construction date: Existing Wells

8. Completion date: Not applicable

ADDITIONAL INFORMATION

1. ATTACH A SITE MAP SHOWING THE LOCATIONS OF THE FOLLOWING:

   (a) PROPOSED MONITORING/RECOVERY WELL(S)

   (b) ALL EXISTING MONITORING/RECOVERY WELLS AND TEST BORINGS WITHIN THE PROPERTY BOUNDARY

   (c) ALL WATER SUPPLY WELLS WITHIN 500 FEET OF THE WELL

   (d) AT LEAST TWO REFERENCE POINTS (e.g. numbered roads, intersections, streams, etc.)

2. PROVIDE A WELL CONSTRUCTION DIAGRAM OF EACH WELL SHOWING DIAMETER, ESTIMATED DEPTH, SCREEN INTERVALS, SAND/GRAVEL PACKS, TYPE OF CASING MATERIAL, CASING WALL THICKNESS, WELL HEAD COMPLETION DETAILS, ETC.

The Applicant hereby agrees the proposed well(s) will be constructed in accordance with approved specifications and conditions of the Well Construction Permit as regulated under the Guilford County Board of Health Rules and Regulations Governing the Construction and Abandonment of Monitoring and Recovery Wells and accepts full responsibility for compliance with these rules.

Herbert E. Beyer — Project Geologist

Signature of Applicant or Agent — Title

If the property is owned by someone other than the applicant, the property owner hereby consents to allow the applicant to construct monitoring wells as outlined in this application and that it shall be the responsibility of the applicant to ensure that these monitoring/recovery wells conform to the Guilford County Board of Health well construction standards.

Attach agreements.

_____
Signature of Property Owner (if different from applicant)

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27687 - RALEIGH, N.C. 27611, PHONE (919) 733-3006

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR Law Engineering
DRILLER REGISTRATION NUMBER 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1069-WM-0494

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro, NC
County: Guilford
(Road, Community, or Subdivision and Lot No.)

2. OWNER Sunoco/Mid-State Oil Company
ADDRESS 1835 Market St. 11 Penn Ctr. 9th Floor (Street or Route No.)
Philadelphia (City or Town) PA (State) 19103 (Zip Code)

3. DATE DRILLED 12/2/92 USE OF WELL Monitoring
4. TOTAL DEPTH 30 ft CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: _____ FT. ☐ above ☐ below TOP OF CASING.
TOP OF CASING IS _____ FT. ABOVE LAND SURFACE.
7. YIELD (gpm): N.A. METHOD OF TEST N.A.
8. WATER ZONES (depth): _____
9. CHLORINATION: Type N.A. Amount N.A.

10. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	0	10	4-in	Sch 40	PVC

11. GROUT:

	Depth From	Depth To	Material	Method
	0	8	Neat Cement	Tremie

12. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	10	25	4 in	0.010 in	PVC
			in	in	
			in	in	

13. GRAVEL PACK:

	Depth From	Depth To	Size	Material
	9	25		Sand

14. REMARKS: _____

Depth From	Depth To	DRILLING LOG Formation Description
		See Soil Test Boring Log MW-2

If additional space is needed use back of form.

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)

See Monitoring Well Location Map

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT — DATE 2/23/93

Submit original to Division of Environmental Management and copy to well owner.

GW-1 Revised 11/84

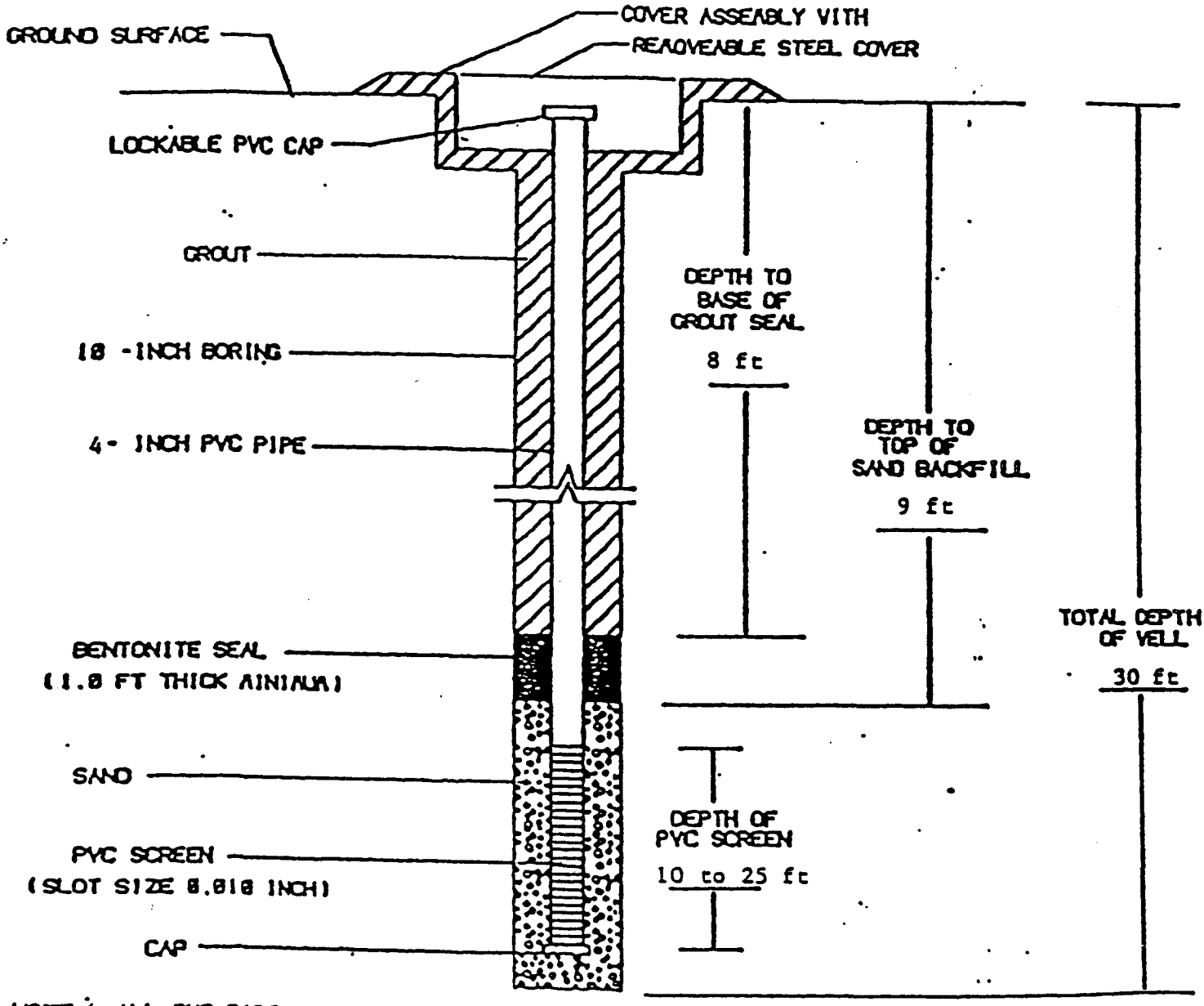
GROUND-WATER MONITORING WELL INSTALLATION RECORD

JOB NAME South Elm St. Sunoco JOB NUMBER 259-97516-01

WELL NUMBER MW-2 GROUND SURFACE ELEVATION _____

LOCATION Greensboro, North Carolina

INSTALLATION DATE December 2, 1993



NOTE: ALL PVC PIPE JOINTS
HAVE SCREW CONNECTORS

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT – GROUNDWATER SECTION
P.O. BOX 27687 – RALEIGH, N.C. 27611, PHONE (919) 733-6083

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

MW-2

DRILLING CONTRACTOR Fishburne Drilling
DRILLER REGISTRATION NUMBER 951
STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro, NC
County: Guilford County
(Road, Community, or Subdivision and Lot No.)
2. OWNER Mid-State Oil Co/Sun Company
ADDRESS 4041 Market St. (Street or Route No.)
Aston Pa 19103
City or Town State Zip Code
3. DATE DRILLED 6/1/93 USE OF WELL monitoring
4. TOTAL DEPTH 30' CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: _____ FT. ☐ above ☐ below TOP OF CASING,
TOP OF CASING IS 0' FT. ABOVE LAND SURFACE.
7. YIELD (gpm): N/A METHOD OF TEST N/A
8. WATER ZONES (depth): _____
9. CHLORINATION: Type NA Amount _____
10. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	0	5	4"	Schedule 40	PVC

11. GROUT:

	Depth From	Depth To	Material	Method
	0	1	Grout	Hand

12. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	5	30	4"	0.020	PVC

13. GRAVEL PACK:

	Depth From	Depth To	Size	Material
	3	30'	2	Sand

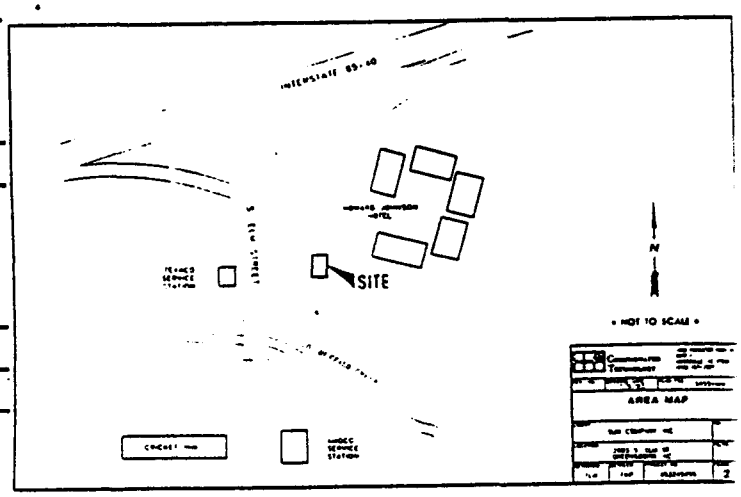
14. REMARKS: _____

DRILLING LOG

Depth From	Depth To	Formation Description
		See Attached
		Drill Log

If additional space is needed use back of form.

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

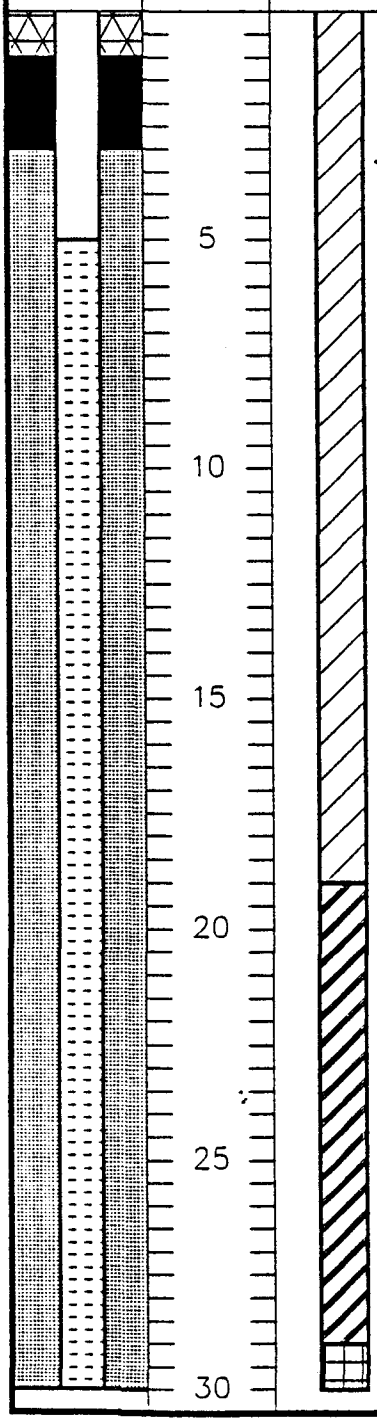
SIGNATURE OF CONTRACTOR OR AGENT DATE

GROUNDWATER TECHNOLOGY INC.

CLIENT: SUN COMPANY, INC.
PROJECT NAME: SUN - ELM ST.
PROJECT NUMBER: 053245445
LOCATION: 2903 S. ELM ST. GREENSBORO, NC
DRILLER: FISHBURNE DRILLING, INC.

DATE 07/08/93 WELL NUMBER MW-2

CASED FROM 0 TO 5' WITH SCH 40 PVC
SCREENED FROM 5' TO 30' WITH 0.020" SLOT
WELL DEPTH 30' WELL DIAMETER 4"
ELEVATION 596.61'
DRILL RIG CME 75
DRILL METHOD HOLLOW STEM AUGER
DATE(S) DRILLED JUNE 1, 1993
LOGGED BY DOUG YEATS
ANNULUS COMPLETION SANDPACK 30'-3'; BENTONITE 3'-1'; GROUT 1'-0
OTHER WELL COMPLETED WITH CONCRETE EMBEDDED MANHOLE COVER & LOCKING CAP



LITHOLOGICAL DESCRIPTION	SAMPLE	COMMENTS
ASPHALT/crusher-run to 5", SANDY CLAY:	0-2'	BC=7-11-11-9 PID=7
Brown, some gravel, mod. stiff, dry		
SANDY CLAY: Brown-red, stiff, dry	2-4'	BC=20-22-18-12 PID=8
SANDY CLAY: Drk brn to drk grey, some	4-6'	BC=9-11-50/3 PID=16
gravel fill material, dry		
SANDY CLAY W/ASPHALT & GRAVEL: Fill	6-8'	BC=5-50/3 PID=8
material		
SANDY CLAY: Green to white, mottled,	8-10'	BC=5-5-5-6 PID=8
moist, soft, slightly friable		
SANDY CLAY: Tan-brown, moist, soft	10-12'	BC=3-3-3-4 PID=8
SANDY CLAY: As above, orange-tan-grey,	12-14'	BC=5-4-4-5 PID=21
mottled, very moist (Lab Sample)		
SANDY CLAY: Light green to tan, very soft	14-16'	BC=4-3-4-4 PID=11
very moist to saturated		
CLAY: Very dark grey w/brown mottles,	19-21'	BC=3-3-5-4 PID=5
plastic, very tight, saturated, mod. soft		
CLAY: As above, slightly sandy	24-26'	BC=3-4-4-4 PID=8
SAPROLITE:	29-31'	BC=30-18-10-6 PID=3

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT – GROUNDWATER SECTION
P.O. BOX 27687 – RALEIGH, N.C. 27611, PHONE (919) 733-5083

FOR OFFICE USE ONLY

Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

MW-3

DRILLING CONTRACTOR Fishbourne Drilling
DRILLER REGISTRATION NUMBER 951

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

1. WELL LOCATION: (Show sketch of the location below)

Nearest Town: Greensboro, NC

County: Guilford County

(Road, Community, or Subdivision and Lot No.)

2. OWNER Mid-State Oil Co/Sun Company

ADDRESS 4041 Market St. (Street or Route No.)

Aston Pa 19103
City or Town State Zip Code

3. DATE DRILLED 6/2/93 USE OF WELL Monitoring

4. TOTAL DEPTH 25' CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: _____ FT. ☐ above ☐ below TOP OF CASING,
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.

7. YIELD (gpm): N/A METHOD OF TEST _____

8. WATER ZONES (depth): _____

9. CHLORINATION: Type N/A Amount _____

10. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From 0	To 5	Ft.	4"	Schedule 40	PVC
From	To	Ft.			
From	To	Ft.			

11. GROUT:

	Depth		Material	Method
From 0	To 1	Ft.	Grout	Hand
From	To	Ft.		

12. SCREEN:

	Depth		Diameter	Slot Size	Material
From 5	To 25	Ft.	4 in.	0.020 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

13. GRAVEL PACK:

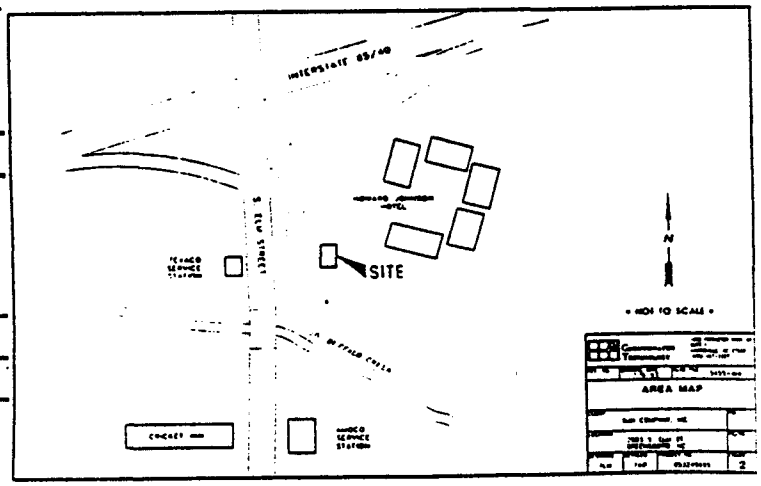
	Depth		Size	Material
From 3	To 25'	Ft.	2	Sand
From	To	Ft.		

DRILLING LOG

Depth From	To	Formation Description
		See Attached
		Drill Log

If additional space is needed use back of form.

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



14. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT _____ DATE _____

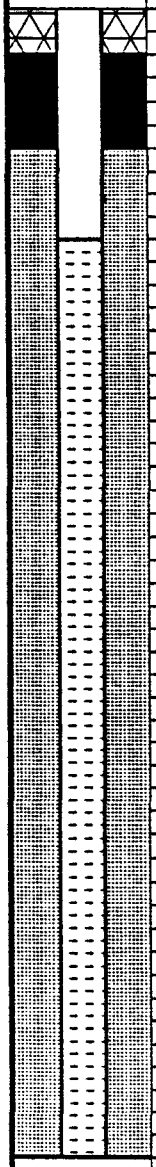
GROUNDWATER TECHNOLOGY INC.

CLIENT: SUN COMPANY, INC.
PROJECT NAME: SUN - ELM ST.
PROJECT NUMBER: 053245445
LOCATION: 2903 S. ELM ST.
GREENSBORO, NC
DRILLER: FISHBURNE DRILLING, INC.

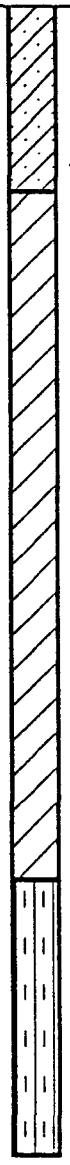
DATE 07/08/93 WELL NUMBER MW-3

CASED FROM 0 TO 5' WITH SCH 40 PVC
SCREENED FROM 5' TO 25' WITH 0.020" SLOT
WELL DEPTH 25' WELL DIAMETER 4"
ELEVATION 596.36'
DRILL RIG CME 75
DRILL METHOD HOLLOW STEM AUGER
DATE(S) DRILLED JUNE 2, 1993
LOGGED BY DOUG YEATS
ANNULUS COMPLETION SANDPACK 25'-3'; BENTONITE 3'-1'; GROUT 1'-0
OTHER WELL COMPLETED WITH CONCRETE EMBEDDED MANHOLE COVER & LOCKING CAP.

WELL DETAIL



GRAPHIC COLUMN



DEPTH	LITHOLOGICAL DESCRIPTION	SAMPLE	COMMENTS
	TOPSOIL to 4", SILTY SANDY CLAY: dry,	0-2'	BC=9-8-7-6 PID=12
	friable, fill material		
	SILTY SANDY CLAY: As above with asphalt	2-4'	BC=7-6-4-5 PID=7
	in fill material		
5	SANDY CLAY: Brn-reddish grey, gravelly,	4-6'	BC=2-3-5-7 PID=2
	fill material, sl moist to dry, mod. soft		
	SANDY CLAY: Greenish drk brn, w/under-	6-8'	BC=24-26-12-8 PID=12
	composed plant matter, sl moist, cohesive		
	SANDY CLAY: As above, with substantial	8-10'	BC=12-8-7-12 PID=1
10	rock debris, sl moist		
	SANDY CLAY: As above	10-12'	BC=12-7-3-2 PID=0
	SANDY CLAY: As above	12-14'	BC=11-8-7-5 PID=9
	SANDY CLAY: Greenish brn, very moist to	14-16'	BC=2-2-2-2 PID=13
15	saturated, some undercomposed plant		
	matter, soft (Lab Sample)		
20	SILTY CLAY: Greenish grey to brn, mottled	19-21'	BC=6-6-7-8 PID=3
	saturated, mod. soft, mod. tight		
25	SILTY CLAY: Greenish grey to brn, very	24-26'	BC=4-5-5-6
	silty, saturated, very tight		
30			

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT – GROUNDWATER SECTION
P.O. BOX 27687 – RALEIGH, N.C. 27611, PHONE (919) 733-6083

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD MW-4

DRILLING CONTRACTOR Fishburne Drilling
DRILLER REGISTRATION NUMBER 951
STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro, NC
County: Guilford County
(Road, Community, or Subdivision and Lot No.)

2. OWNER Midstate Oil Co./Sun Company
ADDRESS 4041 Market St.
(Street or Route No.)
Aston Pa 19103
City or Town State Zip Code

3. DATE DRILLED 6/2/93 USE OF WELL Monitoring
4. TOTAL DEPTH 25' CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: _____ FT. ☐ above ☐ below TOP OF CASING,
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.
7. YIELD (gpm): N/A METHOD OF TEST _____
8. WATER ZONES (depth): _____
9. CHLORINATION: Type N/A Amount _____

Depth From	Depth To	DRILLING LOG Formation Description
		See Attached
		Drill Log

If additional space is needed use back of form.

10. CASING:

From	To	Diameter	Wall Thickness or Weight/Ft.	Material
0	5	4"	Schedule	40 PVC

11. GROUT:

From	To	Material	Method
0	1	Grout	Hand

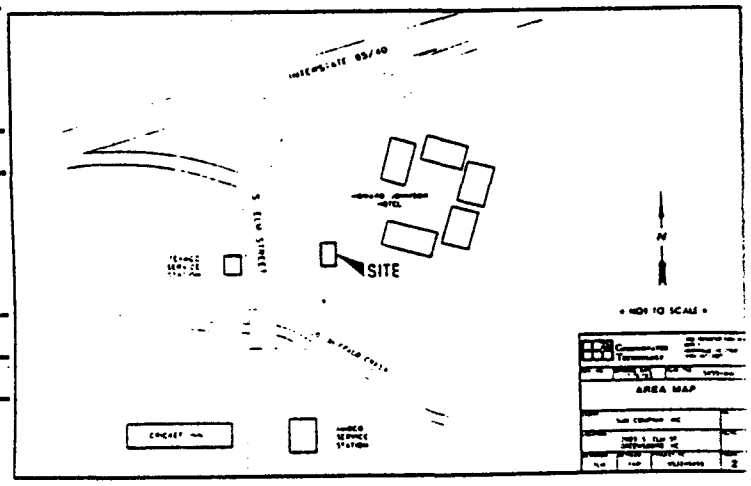
12. SCREEN:

From	To	Diameter	Slot Size	Material
5	25'	4 in.	0.020 in.	PVC
		in.	in.	
		in.	in.	

13. GRAVEL PACK:

From	To	Size	Material
3	25'	~~#~~ 2	~~#~~ Sand

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



14. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT DATE

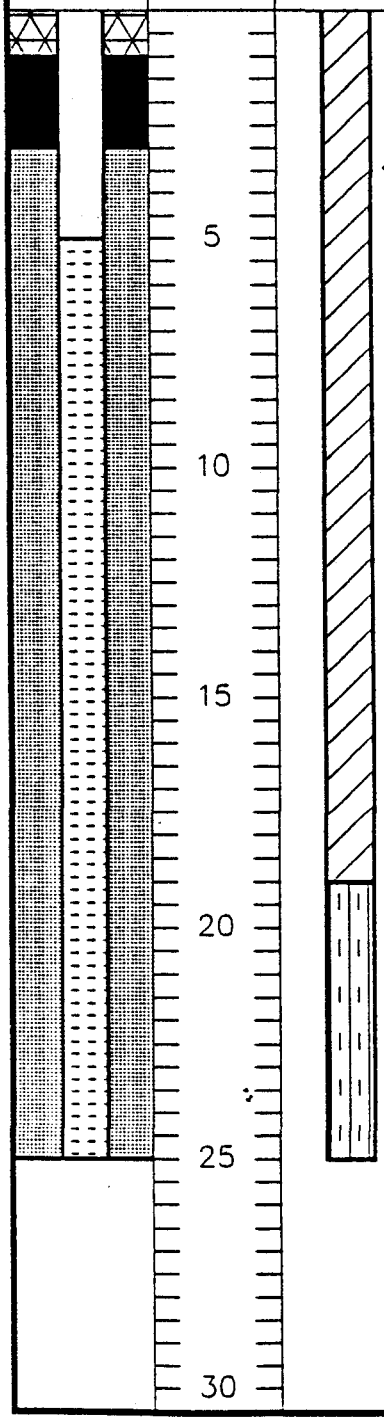
GROUNDWATER TECHNOLOGY INC.

CLIENT: SUN COMPANY, INC.
PROJECT NAME: SUN - ELM ST.
PROJECT NUMBER: 053245445
LOCATION: 2903 S. ELM ST.
GREENSBORO, NC
DRILLER: FISHBURNE DRILLING, INC.

DATE 07/08/93 WELL NUMBER MW-4

CASED FROM 0 TO 5' WITH SCH 40 PVC
SCREENED FROM 5' TO 25' WITH 0.020" SLOT
WELL DEPTH 25' WELL DIAMETER 4"
ELEVATION 596.47'
ANNULUS COMPLETION SANDPACK 25'-3'; BENTONITE 3'-1'; GROUT 1'-0
OTHER WELL COMPLETED WITH CONCRETE EMBEDDED MANHOLE COVER & LOCKING CAP

DRILL RIG CME 75
DRILL METHOD HOLLOW STEM AUGER
DATE(S) DRILLED JUNE 2, 1993
LOGGED BY DOUG YEATS



WELL DETAIL	DEPTH	GRAPHIC COLUMN	LITHOLOGICAL DESCRIPTION	SAMPLE	COMMENTS
			ASPHALT/crusher-run to 5", SANDY CLAY:	0-2'	BC=6-5-5-6 PID=360
			Red, mst & cohesive - dry & friable, soft		
			SANDY CLAY: Grn-brn, sl moist, soft to	2-4'	BC=5-4-4-5 PID=120
			2.5', CLAY: Blk, saturated, org. rich w/		
	5		some undercomposed plant matter 2.5-3.5'		
			CLAY: As above to 5.5', SANDY CLAY: Tan-	4-6'	BC=4-4-5-9 PID=186
			brn v F to C-gr, dry, friable, mod. stiff		
			SANDY CLAY: Tan-greenish brn, v F to C-	6-8'	BC=10-8-10-7 PID=54
			grained, sl moist sl friable, mod. stiff		
	10		SANDY CLAY: Lt grn-tan to off wht,	8-10'	BC=4-6-8-6 PID=51
			mottled, saprolitic, v moist, mod. stiff		
			SANDY CLAY: As above, with orange-tan	10-12'	BC=3-4-4-5 PID=40
			mottles		
	15		SANDY CLAY: Brn, soft, plastic, v moist	12-14'	BC=5-5-6-7 PID=89
			to saturated (Lab Sample)		
			SANDY CLAY: Tree material from 13-14.5',	14-16'	BC=30-18-4-3 PID=47
			solid wood then, brn, v soft, saturated		
	20		SILTY CLAY: Dark grey, organic rich,	19-21'	BC=3-2-1-2 PID=67
			saturated, very soft		
	25		SILTY CLAY: As above	24-26'	BC=5-4-3-5 PID=52
	30				

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT – GROUNDWATER SECTION
P.O. BOX 27687 – RALEIGH, N.C. 27611, PHONE (919) 733-5083

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

VMW-5

DRILLING CONTRACTOR Fishburne Drilling
DRILLER REGISTRATION NUMBER 951
STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro, NC
County: Guilford, NC
(Road, Community, or Subdivision and Lot No.)

2. OWNER MidState Oil Co./Sun Company
ADDRESS 4041 Market St. (Street or Route No.)
Aston, PA 19103
City or Town State Zip Code

3. DATE DRILLED 6/1/93 USE OF WELL Monitoring
4. TOTAL DEPTH 48' CUTTINGS COLLECTED ☒ Yes ☐ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No
6. STATIC WATER LEVEL: _____ FT. ☐ above ☐ below TOP OF CASING,
TOP OF CASING IS _____ FT. ABOVE LAND SURFACE.
7. YIELD (gpm): N/A METHOD OF TEST _____
8. WATER ZONES (depth): _____
9. CHLORINATION: Type N/A Amount _____

Depth From	Depth To	DRILLING LOG Formation Description
		See Attached
		Drill Log

If additional space is needed use back of form.

10. CASING:

From	To	Diameter	Wall Thickness or Weight/Ft.	Material
0	43	2"	Schedule 40	PVC

11. GROUT:

From	To	Material	Method
0	39	Grout	Tremie

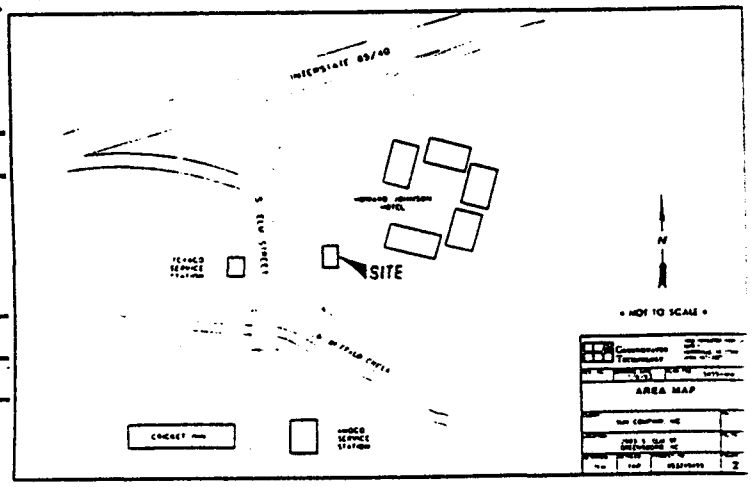
12. SCREEN:

From	To	Diameter	Slot Size	Material
43	48	2 in	0.020 in	PVC
		in	in	
		in	in	

13. GRAVEL PACK:

From	To	Size	Material
41	48	2	Sand

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



14. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

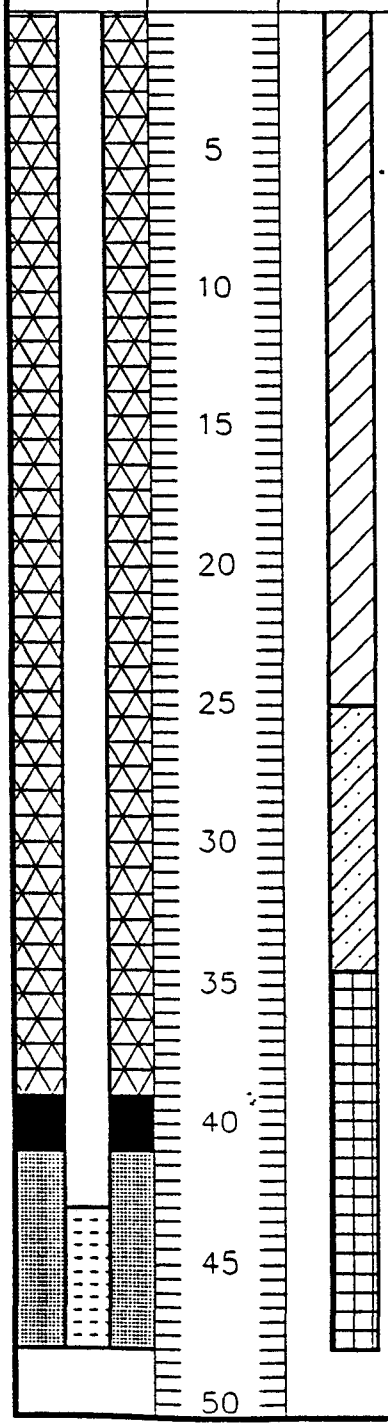
SIGNATURE OF CONTRACTOR OR AGENT _____ DATE _____

GROUNDWATER TECHNOLOGY INC.

CLIENT: SUN COMPANY, INC.
PROJECT NAME: SUN - ELM ST.
PROJECT NUMBER: 053245445
LOCATION: 2903 S. ELM ST. GREENSBORO, NC
DRILLER: FISHBURNE DRILLING, INC.

DATE 07/08/93 WELL NUMBER VMW-5

CASED FROM 0 TO 43' WITH SCH 40 PVC
SCREENED FROM 43' TO 48' WITH 0.020" SLOT
WELL DEPTH 48' WELL DIAMETER 2"
ELEVATION 597.10'
DRILL RIG CME 75
DRILL METHOD HOLLOW STEM AUGER & AIR ROTARY
DATE(S) DRILLED JUNE 1, 1993
LOGGED BY DOUG YEATS
ANNULUS COMPLETION SANDPACK 48'-41'; BENTONITE 41'-39'; GROUT 39'-0
OTHER COMPLETED W/CONCRETE EMBEDDED MH COVER & LOCKING CAP. 6" OUTER CASING TO 35'



WELL DETAIL	DEPTH	GRAPHIC COLUMN	LITHOLOGICAL DESCRIPTION	SAMPLE	COMMENTS
			ASPHALT/crusher-run to 5", SANDY CLAY:	0-2'	BC=5-7-5-9 PID=9
			Red-brn to blk, s gravel, dry, mod. stiff		
	5		SANDY CLAY: As above, moist, mod. soft	2-4'	BC=6-5-5-20 PID=22
			SANDY CLAY: Drk brn, mod. soft, sl moist	4-6'	BC=5-6-6-8 PID=4
			SANDY CLAY: Drk grn-grey to brn w/undem-	6-8'	BC=12-7-9-11 PID=3
	10		composed plant matter, sl mst, mod. soft		
			SANDY CLAY: Lt grn-grey to brn, organic-	8-10'	BC=2-3-3-2 PID=2
			rich, very soft, very moist		
	15		SANDY CLAY: As above	10-12'	BC=3-3-2-3 PID=2
			SANDY CLAY: Brk brn to blk, soft, very	12-14'	BC=5-7-7-6 PID=6
			moist to saturated (Lab Sample)		
	20		SANDY CLAY: As above, Lt brn to grey	14-16'	BC=2-5-6-3 PID=2
			SANDY CLAY: Grey, soft, saturated	16-18'	BC=3-3-3-4 PID=2
	25		SANDY CLAY: Lt grey, very soft, saturated	18-20'	BC=1-1-1-1 PID=4
			CLAYEY SAND: Lt grey, fine to medium-	25-27'	BC=3-2-3-4 PID=4
			grained, loose, soft, saturated		
	30		CLAYEY SAND: As above, some gravel	30-32'	BC=2-2-3-3 PID=2
			CLAYEY SAND: As above to 34.5' then	34-36'	BC=15-13-19-22 PID=4
	35		SAPROLITE: Orange-tan-off white, slightly		
			clayey fine to coarse-grained sand,		
			highly weathered, sharp contact,		
	40		saturated		
	45				
	50				

Drilling Log

GROUNDWATER TECHNOLOGY

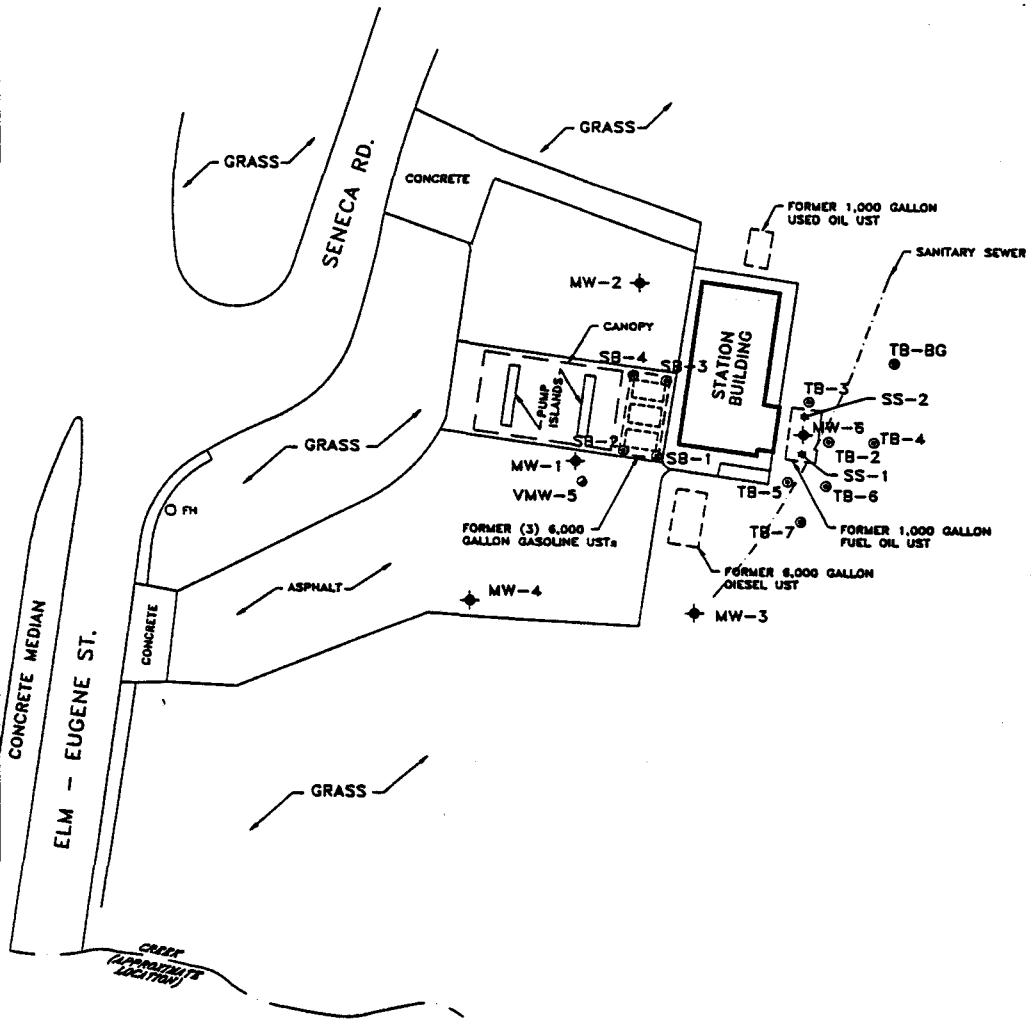
Monitoring Well MW-6

Project Sun/Elm St. Owner Sunoco
Location 2903 S. Elm St., Greensboro, NC Proj. No. 05324-00102
Surface Elev. _____ Total Hole Depth 20 ft. Diameter 8 in.
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia 2 in. Length 5 ft. Type/Size 20 SLOT in.
Casing: Dia 2 in. Length 15 ft. Type PVC
Fill Material SAND Rig/Core CME 75
Drill Co. Rock-Ray Drilling Method HOLLOW STEM AUGER
Driller R. Schmon Log By J. KIRKPATRICK Date 8/19/95 Permit # _____
Checked By _____ License No. _____

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	FID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						(0-.25') Asphalt
						(0-.25') Grass and roots.
2						
4						
						(.25-2') Slightly silty fine to medium SAND; Fill; dry
6		98	9/100%			(2-4') Green, gray, black silty fine to coarse sandy CLAY with organics (wood fragments) and gravel; moist; strong odor of diesel fuel.
8		700	14/100%			(4-6') Little recovery - looks like slough.
						(6-8') Greenish gray silty, fine to coarse sandy CLAY with gravel; moist; no odor.
10		1000+	39/100%		ML	(8-10') Greenish-gray fine to medium sandy CLAY with gravel; moist; no odor.
12		1000+	7/100%			(10-12') Same as above; moist to wet; no odor.
						(12-14') Same as above; wet; no odor.
14		98	6/100%			
						(14-16') Tan, orange, and gray fine to coarse sandy silty CLAY; Alluvium; wet
16		280	3/100%			
						(16-18') Dark gray to black silty CLAY with wood fragments; wet; no odor.
18		1000+	10/100%			
						(18-20') Dark gray to black fine sandy CLAY with wood fragments; moist to wet; no odor.
20		1000+	10/100%			
						(16-17') Same as above.
22						(17-18') Light brown SILT; wet.
						(18-20') Same as above.
24						
26						
28						
30						



LEGEND

- MONITORING WELL
- VERTICAL DEFINITION MONITORING WELL
- FH FIRE HYDRANT
- SOIL BORINGS
- TANK EXCAVATION SAMPLES

N

50 0 50
SCALE FEET

SOURCE: JAMES L. HAINES & ASSOC. - 6/16/93 SURVEY

GROUNDWATER TECHNOLOGY
1000 PERIMETER PARK DR.
SUITE I
MORRISVILLE, NC 27560
(919) 467-2227

REV. NO.:	DRAWING DATE: 01/06/95	ACAD FILE: 01021295

SITE MAP

CLIENT: SUN COMPANY, INC.			PM:
LOCATION: 2903 S. ELM ST. GREENSBORO, NC			PE/RG:
DESIGNED: KAT	DETAILED: RTJ	PROJECT NO.: 053245455	FIGURE: 2