Solutions-IES
Industrial & Environmental Services

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December 5, 2016

Mr. Terry Fox, L.G.
North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

Reference: **Preliminary Site Assessment Revision 1**
6157 Crystal Drive LLC Property (Parcel #72)
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina
State Project: U-4405
WBS Element 39049.1.1
SIES Project No. 2016.0054.NDOT

Dear Mr. Fox:

Solutions-IES, Inc., (SIES) has completed the Preliminary Site Assessment conducted at the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated September 26, 2016, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated September 26, 2016. Activities associated with the assessment consisted of conducting a geophysical investigation, collecting soil samples for analysis, and reviewing applicable North Carolina Department of Environmental Quality (NCDEQ) records. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

Location and Description

The 6157 Crystal Drive LLC Property (Parcel #72) is located at 6605 Raeford Road in Fayetteville, Cumberland County, North Carolina. The property is situated on the south side of Raeford Road in the southwest quadrant of the intersection of Raeford Road and Strickland Bridge Road (**Figure 1**). The property consists of an active gas station and convenience store (Circle K). Based on a review of on-line UST registry information, three gasoline underground storage tanks (USTs) were reportedly installed on the property in 1986.

An asphalt parking area surrounds the building on north and east sides and extends almost to the property boundaries. A detached canopy with two dispensers is located at the northern corner of the building, and the three USTs are located at the entrance to the eastern side of the property (noted as U/G Tank on **Figure 2**). The proposed easement has not been marked at the site, but the NCDOT plan sheet shows the easement as potentially impacting the canopy and one UST.

On the basis of the presence of the gas station and the proximity of the USTs to the proposed easement, the NCDOT requested a Preliminary Site Assessment for the right-of-way and proposed easement. The scope of work as defined in the Request for Technical and Cost Proposal was to evaluate the site with respect to the presence of known and unknown USTs, and to assess where contamination exists on the right-of-way/proposed easement. An estimate of the quantity of impacted soil was to be provided, should impacted soils be encountered.

SIES reviewed the on-line NCDEQ Incident Management database and Incident Number 23062 was assigned to the site. A further file review regarding the incident from the NCDEQ Fayetteville Regional Office indicated that a release was discovered from a gasoline UST in March 2001. As a convenience to the reader, relevant excerpts from the file documents are presented in **Attachment A** and the file reports without laboratory data are added to the end of this report. A Phase II Limited Site Assessment was conducted and soil and groundwater contamination was confirmed. Free product was noted in both the soil and groundwater. Groundwater was encountered at 19 feet below ground surface (ft bgs). Based on the Limited Site Assessment findings, the site was assigned a high-risk groundwater classification because of nearby water supply wells. Subsequently, aggressive fluid vapor recovery was conducted over a period of one year, and 20,157 gallons of contaminated groundwater, 2,998 pounds of petroleum vapors, and 1,882 gallons of free product were recovered. A Comprehensive Site Assessment (CSA) was completed in April 2003. During the course of the investigation, 13 monitoring wells and three recovery wells were installed to assess the site. Of these wells, the three recovery wells and four monitoring wells contained approximately 0.5 feet of free product. One off-site monitoring well to the east contained one foot of product. None of the borings advanced for the wells installed for the CSA encountered free product in the soil. The CSA concluded that the extent of contamination was established on all sides except the east. Landowner access issues prevented further delineation in that direction. The report also recommended that a Corrective Action Plan be prepared for the site; however, no such document was available in the NCDEQ files.

In March 2012, Enviroassessments conducted a Phase II Environmental Site Assessment (ESA) in relation to a pending real estate transaction. Eight soil samples and three groundwater samples were collected from various areas of the site. With the exception of one soil sample, no total petroleum hydrocarbons diesel or gasoline range organics (GRO/DRO) were detected above the applicable action level. One soil sample at a depth of four feet from a boring that may be within the NCDOT right-of-way contained DRO at a concentration of 47.6 milligrams per kilogram (mg/kg) and GRO at a concentration of 115 mg/kg. The GRO is above the current action level of 50 mg/kg. Groundwater results indicated the presence of petroleum compounds.

From January 2008 to May 2015 (the latest groundwater monitoring report in the files) Withers & Ravenel (W&R) conducted groundwater monitoring events at the site. According to the Active Remediation Monitoring Report, free product continues to be observed periodically in the recovery wells and two monitoring wells. Groundwater samples from wells with no free product contain petroleum compounds above the a 15A NCAC 2L standards.

SIES also examined the UST registration database to obtain UST ownership information. According to the database, the USTs on the property were operated under Facility Number 00-0-0000012307. The active USTs include three 10,000-gallon gasoline tanks. The owner and operator of the tanks are listed as follows:

Owner
Circle K Stores Inc.
2440 Whitehall Park Drive, Ste 800
Charlotte, NC 28273

Operator
Circle K 2720486
6605 Raeford Road
Fayetteville, NC 28304

Geophysical Survey

Prior to SIES' mobilization to the site, Pyramid Environmental & Engineering of Greensboro, NC (Pyramid) conducted a geophysical survey to confirm the presence of the known USTs in the right-of-way/proposed easement and determine if additional USTs were present in that area. The geophysical survey consisted of an electromagnetic survey using a Geonics EM61 time-domain electromagnetic induction meter to locate buried metallic objects, and ground penetrating radar using a Geophysical Survey Systems Inc. Utility Scan DF with a dual frequency 300/800 MHz antenna. The instruments were used specifically to locate USTs.

A survey grid was laid out along the right-of-way/proposed easement with the X-axis oriented approximately parallel to Raeford Road and the Y-axis oriented approximately perpendicular to Raeford Road. The grid was positioned to cover the entire right-of-way/proposed easement, as shown on **Figure 2** of the geophysical survey report in **Attachment B**.

The survey lines were spaced five feet apart and magnetic data were collected continuously along each survey line with a data logger. After collection, the data were reviewed in the field with graphical computer software. Following the electromagnetic survey, a ground penetrating radar (GPR) survey was conducted to further evaluate any significant metallic anomalies.

Access was available to all areas of the property, and several anomalies were detected with the geophysical survey. The anomalies were generally attributed to metallic debris, underground utilities, signage, or USTs. One anomaly was detected in the UST area that Pyramid interpreted as known USTs,

based on the NCDOT criteria. Pyramid's detailed report of findings and interpretations is presented in **Attachment B**.

Site Assessment Activities

X On October 24, 2016, SIES mobilized to the site to conduct a Geoprobe® direct-push investigation to evaluate subsurface soil conditions on the property. As directed by the NCDOT, the Geoprobe® borings were terminated at 10 feet below ground surface (ft bgs) unless the location was in the vicinity of a known or suspected UST, which resulted in a boring terminated at 12 ft bgs. Ten direct-push holes (72-SB-1 through 72-SB-10) were advanced throughout the right-of-way/proposed easement (**Figure 2).** The soil boring logs are included as **Attachment C**. Borings 72-SB-1 through 72-SB-4 were located to evaluate the subsurface conditions in the right-of-way/easement along Raeford Road, and borings 72-SB-5 through 72-SB-10 were located to evaluate the conditions on the right-of-way/proposed easement along the west side of Strickland Bridge Road (see photos in **Attachment D**).

Continuous sampling using a Geoprobe® resulted in generally good recovery of soil samples from the direct-push holes. Soil samples were collected and contained in four-foot long acetate sleeves inside the direct-push Macro-Core® sampler. Each of the sleeves was divided into two-foot long sections for soil sample screening. Soil from each two-foot interval was placed in a resealable plastic bag and the bag was set aside for volatilization of organic compounds from the soil to the bag headspace. A photoionization detector (PID) probe was inserted into the bag and the reading was recorded (**Table 1**).

If the PID concentrations in a boring were consistently low, one sample from the bottom interval was selected for analysis. If the PID concentrations were elevated, samples at the elevated and bottom intervals were selected for analyses. The PID results are summarized in Table 1.

The selected soil samples were submitted to an on-site mobile laboratory for analysis of total petroleum hydrocarbons (TPH) diesel range organics (DRO) and gasoline range organics (GRO) using ultraviolet fluorescence (UVF) methodology. Each boring was backfilled with bentonite and drill cuttings to the surface after completion.

The lithology encountered by the direct-push samples was generally consistent throughout the site. The ground surface was covered with about 0.5 feet of asphalt or topsoil. Below this surface cover to a depth of about two feet was a mottled brown and red clayey fine-grained sand. Underlying the sand was a mottled brown and red sandy clay. Groundwater was observed in the three 12-ft deep borings at a depth of about 10.5 feet. No bedrock was noted in any of the borings.

According to the 1985 Geologic Map of North Carolina, the site is within of Coastal Plain Physiographic Province in North Carolina near the contact between the Cretaceous Black Creek and Middendorf Formations. The strata of the Black Creek Formation consist of gray to black clay, thin lenses of fine-grained sand and thick lenses of cross-bedded sand. The lithology may also include glauconite and fossils. In comparison, the Middendorf Formation consists of sand, sandstone, and mudstone that are laterally discontinuous. The soils observed at the site are consistent with the MIddendorf Formation as the parent material.

Analytical Results

The laboratory data are summarized in **Table 1** and the complete report is presented in **Attachment E**. Thirteen soil samples were submitted for analysis (multiple samples were collected from borings 72-SB-7 and 72-SB-10). Of these samples, one contained detectable GRO compounds and seven contained detectable DRO compounds. Soil sample 72-SB-7-8-10 contained 5.5 mg/kg GRO. DRO concentrations ranged from 0.17 to 2.1 mg/kg. The action levels are 50 mg/kg for GRO and 100 mg/kg for DRO[1]. None of the soil samples analyzed for this site contained DRO or GRO concentrations above their respective action levels.

Conclusions and Recommendations

A Preliminary Site Assessment was conducted to evaluate the 6157 Crystal Drive LLC Property (Parcel #72) located at 6605 Raeford Road in Fayetteville, Cumberland County, North Carolina. Documents within the NCDEQ UST Section files indicated that a release had occurred at the site. Soil and groundwater contamination and free product were detected. One soil sample collected as part of a Phase II ESA[2] contained GRO above the current action level. The boring appears to be under the north side of the canopy, but the location of the boring is not clearly identified. It cannot be confirmed that the boring is not within the right-of-way. A recent monitoring report[3] found free product at the site.

A geophysical survey conducted at the site located the known USTs on the east side of the property. No other probable/possible UST's were identified. Ten soil borings were advanced to evaluate the subsurface soil conditions along the right-of-way/proposed easement. None of the analyzed soil samples detected GRO or DRO concentrations above their respective action levels.

[1] NCDEQ, *Guidelines for North Carolina Action Limits for Total Petroleum Hydrocarbons (TPH)*,July 26, 2016,
[2] Enviroassessments, 2012, Phase II Environmental Site Assessment, Kangaroo Station, 6605 Raeford Road
[3] Withers & Ravenel, 2015, Active Remediation Monitoring Report, 6605 Raeford Road

Free product and associated soil contamination have been detected at the south and of the grassy area along Strickland Road just inside the proposed right-of-way. Boring 72-SB-8 was drilled in this location but detected neither GRO all nor DRO above method detection limits at 8-10 ft bgs. However, it is possible that some soil contamination exists in the smear zone above the water table in this location.

The UVF analytical results (**Table 1)** of the soil samples collected on October 25, 2016 indicate that none of the soil samples contained DRO or GRO concentrations above the action level. Therefore, no estimate of the volume of soil requiring possible remediation was made.

SIES appreciates the opportunity to work with the NCDOT on this project. Because compounds were detected above the method detection limit in the soil samples, SIES recommends that a copy of this report be submitted to the Division of Waste Management, UST Section, in the Fayetteville Regional Office. If you have any questions, please contact us at (919) 873-1060.

Sincerely,

Michael W. Branson, P.G.
Project Manager

Attachments

John Palmer, P.G.
Senior Hydrogeologist

Not considered Final unless all signatures are completed

TABLE 1
SOIL FIELD SCREENING AND ANALYTICAL RESULTS
6157 CRYSTAL DRIVE LLC PROPERTY (PARCEL #72)
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA
STATE PROJECT: U-4405
WBS ELEMENT 39049.1.1
SIES PROJECT NO. 2016.0054.NDOT

SAMPLE ID	DEPTH (ft)	PID READING (ppm)	SAMPLE ID	ANALYTICAL RESULTS (mg/kg)	
				UVF GRO	UVF DRO
	Action Level (mg/kg)			50	100
72-SB-1	0 - 2	3.9			
	2 - 4	2.1			
	4 - 6	3.5			
	6 - 8	2.8			
	8 - 10	4.3	72-SB-1-8-10	<0.19	**0.19**
72-SB-2	0 - 2	3.3			
	2 - 4	1.4			
	4 - 6	0.9			
	6 - 8	0.6			
	8 - 10	1.6	72-SB-2-8-10	<0.2	<0.2
72-SB-3	0 - 2	0.2			
	2 - 4	2.9			
	4 - 6	0.2			
	6 - 8	0.3			
	8 - 10	0.3	72-SB-3-8-10	<0.17	**2.0**
72-SB-4	0 - 2	0			
	2 - 4	0			
	4 - 6	0.4			
	6 - 8	0.6			
	8 - 10	2.0	72-SB-4-8-10	<0.24	**0.24**
72-SB-5	0 - 2	0.2			
	2 - 4	0.1			
	4 - 6	0.7			
	6 - 8	0.4			
	8 - 10	0.4	72-SB-5-8-10	<0.16	<0.16
72-SB-6	0 - 2	0.4			
	2 - 4	0.5			
	4 - 6	0.9			
	6 - 8	0.3			
	8 - 10	1.2	72-SB-6-8-10	<0.18	<0.18
72-SB-7	0 - 2	0.6			
	2 - 4	0.2			
	4 - 6	18.3	72-SB-7-4-6	<0.14	**0.54**
	6 - 8	6.5	72-SB-7-6-8	<0.56	**0.56**
	8 - 10	2.2	72-SB-7-8-10	**5.5**	<0.58
	10 - 12	NS			
72-SB-8	0 - 2	0.8			
	2 - 4	0.2			
	4 - 6	0.1			
	6 - 8	0.2			
	8 - 10	12.7	72-SB-8-8-10	<0.19	<0.19
72-SB-9	0 - 2	0.2			
	2 - 4	0			
	4 - 6	0.3			
	6 - 8	1.4			
	8 - 10	15.5	72-SB-9-8-10	<0.17	**0.17**
	10 - 12	NS			
72-SB-10	0 - 2	0			
	2 - 4	0			
	4 - 6	0.2			
	6 - 8	16.6	72-SB-10-6-8	<0.2	<0.2
	8 - 10	20.7	72-SB-10-8-10	<0.16	**2.1**
	10-12	NS			

1) ft - feet

2) ppm - parts per million.

3) PID - photoionization ionization detector

4) mg/kg - milligrams per kilogram.

5) UVF DRO - Diesel range organics by UVF.

6) UVF GRO - Gasoline range organics by UVF.

7) Action level based upon NCDEQ memo *Guidelines for North Carolina Action Limits for Total Petroleum Hydrocarbons* - July 29, 2016.

8) Soil samples were collected on October 24, 2016.

9) NS - Not sampled due to groundwater

10) **Bold** values are above the detection level.

FIGURES

PROJECT NUMBER 2016.0054.NDOT

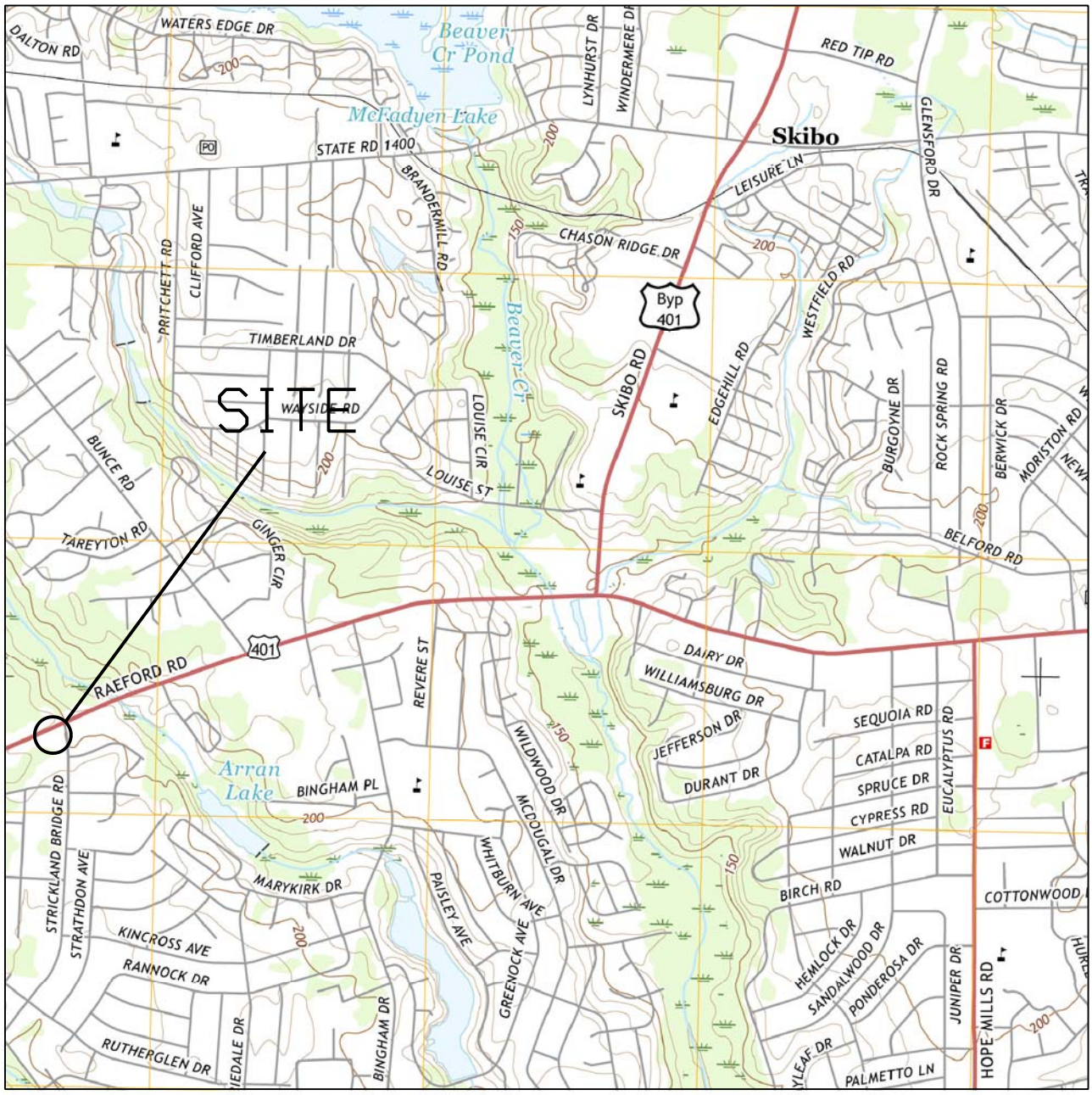
CHECKED BY JEP

PROJECT MANAGER MWB

DATE NOVEMBER 2016

FAYETTEVILLE PSAS

FILE



SCALE 1:24,000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: FAYETTEVILLE, NC (2016)

Solutions-IES
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1101 NOWELL ROAD
RALEIGH, NORTH CAROLINA 27607
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VICINITY MAP

6157 CRYSTAL DRIVE LLC PROPERTY (PARCEL #72)
FAYETTEVILLE, CUMBERLAND COUNTY NORTH CAROLINA

FIGURE 1

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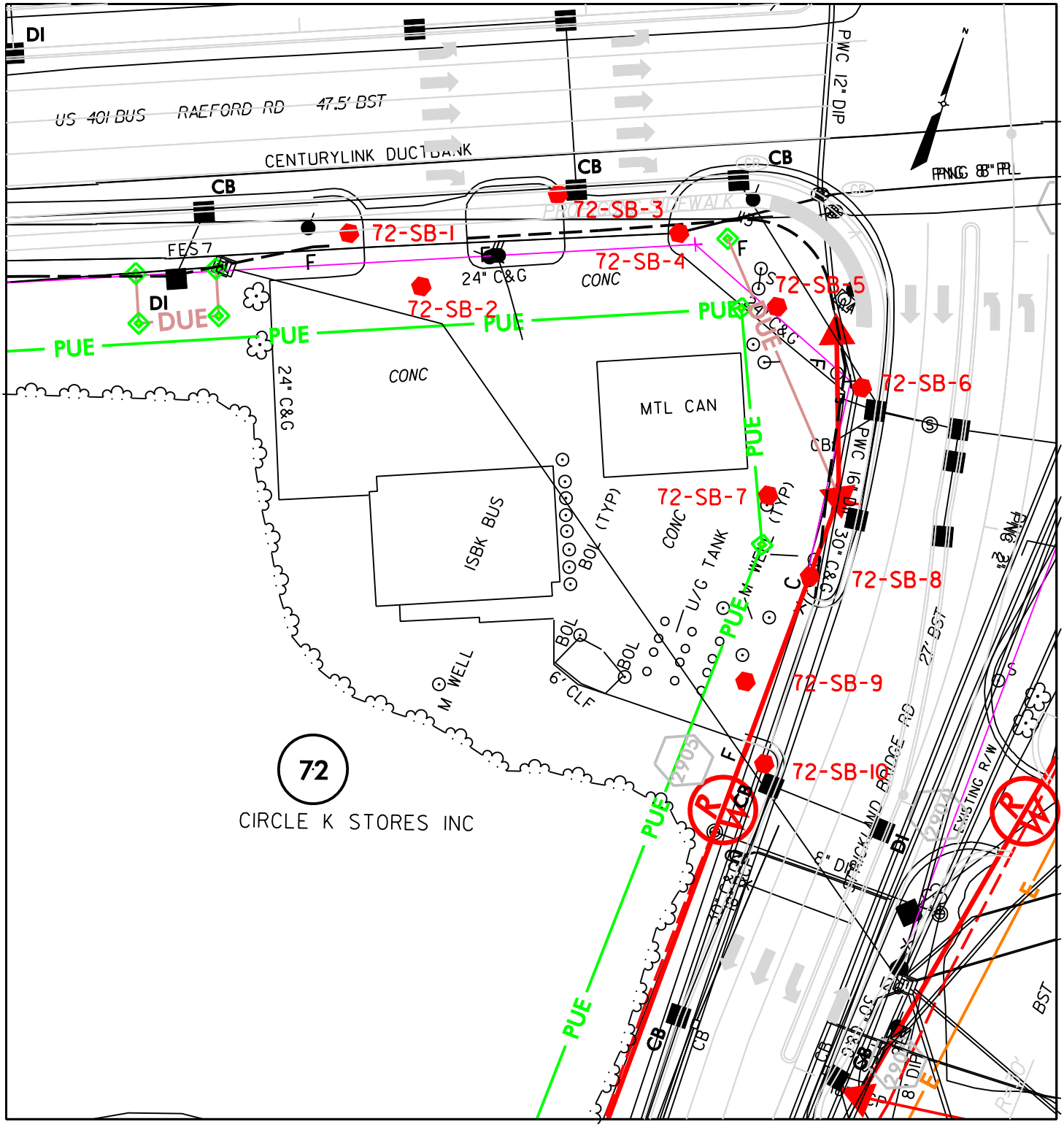

PROJECT NUMBER 2016.0054.NDOT
DRAFTER MWB
CHECKED BY JEP
PROJECT MANAGER MWB
DATE NOVEMBER 2016
FAYETTEVILLE PSAS
FILE

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SITE MAP

6157 CRYSTAL DRIVE LLC PROPERTY (PARCEL #72)

FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA

FIGURE 2

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ATTACHMENT A

SEI
Engineering & Geological Services, P.C.

Comprehensive Site Assessment Report

Site Location:
The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County

Site Owner:
Joseph H. Gillis, et al
P. O. Box 736
Fayetteville, North Carolina 28302

Prepared for:

The Pantry, Inc.
P. O. Box 1410
Sanford, North Carolina 27330
(919) 774-6700

Project Number: 501430
Facility ID Number: 0-023655
Incident Number: 23062
Site Priority Ranking: High
Reason for Risk Classification: Water supply well located within 1,000 feet of the source area of the release

General Site Information:
Surrounding Land Use – Commercial/Residential/Undeveloped
Latitude/Longitude – N 35° 2' 24" / W 78° 59' 50"
Release Date – March 21, 2001
Estimated Quantity – Unknown
Cause of Release – Underground storage tank system
UST Information – (3) 10,000-gallon gasoline

Prepared by:

NORTH CAROLINA LICENSED SEAL 1891 GEOLOGIST MICHAEL WYNN WORDEN

Michael W. Worden, P.G.
NC Licensed Geologist #1891
SEI Engineering and
Geological Services, P.C.
5100 N. I-85 Service Road, Suite 7A
Charlotte, North Carolina 28206

April 28, 2003

TABLE B-1

Site History
UST System Information

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

UST ID Number	Product	Capacity (gallons)	Date Installed	Permanent Closure Date Or Currently in Use	Was Release Associated With UST System? (Y/N)
1	Gasoline	10,000	05/06/1986	Currently in Use	Y
2	Gasoline	10,000	05/06/1986	Currently in Use	Y
3	Gasoline	10,000	05/06/1986	Currently in Use	Y

TABLE B-2

Site History
UST Owner/Operator Information

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

UST ID Number	Dates of Ownership / Operation	Name of Owner or Operator	Owner or Operator?
1	05/06/86 to Present	The Pantry, Inc.	Both
		Address	**Telephone Number**
		Post Office Box 1410 Sanford, North Carolina 27330	(919) 774-6700
UST ID Number	**Dates of Ownership / Operation**	**Name of Owner or Operator**	**Owner or Operator?**
2	05/06/86 to Present	The Pantry, Inc.	Both
		Address	**Telephone Number**
		Post Office Box 1410 Sanford, North Carolina 27330	(919) 774-6700
UST ID Number	**Dates of Ownership / Operation**	**Name of Owner or Operator**	**Owner or Operator?**
3	05/06/86 to Present	The Pantry, Inc.	Both
		Address	**Telephone Number**
		Post Office Box 1410 Sanford, North Carolina 27330	(919) 774-6700

TABLE B-3

Soil Sample Analytical Results
from Limited Site Assessment

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Sample Location	Sample Depth (feet)	Date Sampled	OVA (ppm)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	C5-C8 Aliphatics (µg/kg)	C9-C12 Aliphatics (µg/kg)	C9-C10 Aromatics (µg/kg)
MW-1	--	03/22/01	Free Product Present								
RW-1	--	03/23/01	Free Product Present								
RW-2	--	03/23/01	Free Product Present								
RW-3	--	03/23/01	Free Product Present								
NCDWM Soil-to-Groundwater MSCCs				**5.6**	**7,000**	**240**	**5,000**	**920**	**72,000**	**3,255,000**	**34,000**
NCDWM Residential MSCCs				**22,000**	**3,200,000**	**1,560,000**	**32,000,000**	**156,000**	**939,000**	**9,386,000**	**469,000**

ppm - parts per million
µg/kg - micrograms per kilogram
BDL - Below detection limits
Bold denotes concentrations above the Soil-to-Groundwater Maximum Soil Contaminant Concentrations (MSCC)

TABLE B-4

Groundwater Analytical Results

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Sample Location	Date Sampled	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	IPE (µg/L)	Lead (µg/L)	EDB (µg/L)	C5-C8 Aliphatics (µg/L)	C9-C12 Aliphatics (µg/L)	C9-C10 Aromatics (µg/L)
MW-1	04/30/01	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-2	04/30/01	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-3	04/30/01	**4,700**	**2,400**	**24,000**	**14,000**	**1,900**	<1,000	<11	<0.020	**38,000**	**18,000**	**9,800**
	02/26/03	Not Sampled – Free Product Present										
MW-4	04/30/01	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-5	04/30/01	**1.2**	1.1	5.8	32.9	78	3.7	<11	<0.020	260	49	54
	02/26/03	**120**	11	50	160	**1,400**	<50	<5.0	NA	**4,000**	620	**370**
MW-6	10/16/01	<1.0	<1.0	2.0	4.3	<1.0	<1.0	**100**	<0.020	<40	<20	29
	02/26/03	**4.3**	<1.0	<5.0	12	<5.0	<5.0	5.9	NA	**1,200**	<100	<100
MW-7	10/16/01	**2.1**	2.2	20	10.0	<1.0	<1.0	<11	<0.020	50	<20	<20
	02/26/03	<1.0	<1.0	<5.0	<3.0	<5.0	<5.0	7.1	NA	<100	<100	<100
MW-8	10/16/01	**7.0**	3.6	37	20.9	1.8	<1.0	<11	<0.020	78	<20	36
	02/26/03	<1.0	<1.0	<5.0	3.1	<5.0	<5.0	<5.0	NA	<100	<100	<100

TABLE B-4 (Continued)

Groundwater Analytical Results

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Sample Location	Date Sampled	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	IPE (µg/L)	Lead (µg/L)	EDB (µg/L)	C5-C8 Aliphatics (µg/L)	C9-C12 Aliphatics (µg/L)	C9-C10 Aromatics (µg/L)
MW-9	10/16/01	**5,100**	**1,900**	**25,000**	**9,800**	<200	<200	<11	<0.020	**37,000**	**13,000**	**5,400**
	02/26/03	Not Sampled – Free Product Present										
MW-10	10/16/01	**68**	4.1	150	70	<1.0	<1.0	<11	<0.020	**680**	73	37
	02/26/03	**410**	20	600	240	**450**	<5.0	5.4	NA	**2,700**	520	100
MW-11	03/04/02	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-12	03/04/02	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<11	<0.020	<40	<20	<20
	02/26/03	<1.0	<1.0	<5.0	<3.0	<5.0	<5.0	<5.0	NA	<100	<100	<100
MW-13	03/04/02	<1.0	<1.0	1.3	<3.0	<1.0	<1.0	<11	<0.020	<40	<20	22
	02/26/03	<1.0	<1.0	<5.0	<3.0	<5.0	<5.0	<5.0	NA	<100	<100	<100
2L Standards		**1**	**29**	**1,000**	**530**	**200**	**70**	**15**	**0.0004**	**420**	**4,200**	**210**
10 x 2L Standards		**10**	**290**	**10,000**	**5,300**	**2,000**	**700**	**150**	**0.004**	**4,200**	**42,000**	**2,100**
GCLs		**5,000**	**29,000**	**257,500**	**87,500**	**200,000**	**70,000**	**15,000**	**NE**	**NE**	**NE**	**NE**

µg/L - micrograms per liter
Bold denotes concentration is greater than the 15A NCAC 2L Standard
NE – Not established
NA – Not analyzed
GCL - Gross Contamination Level

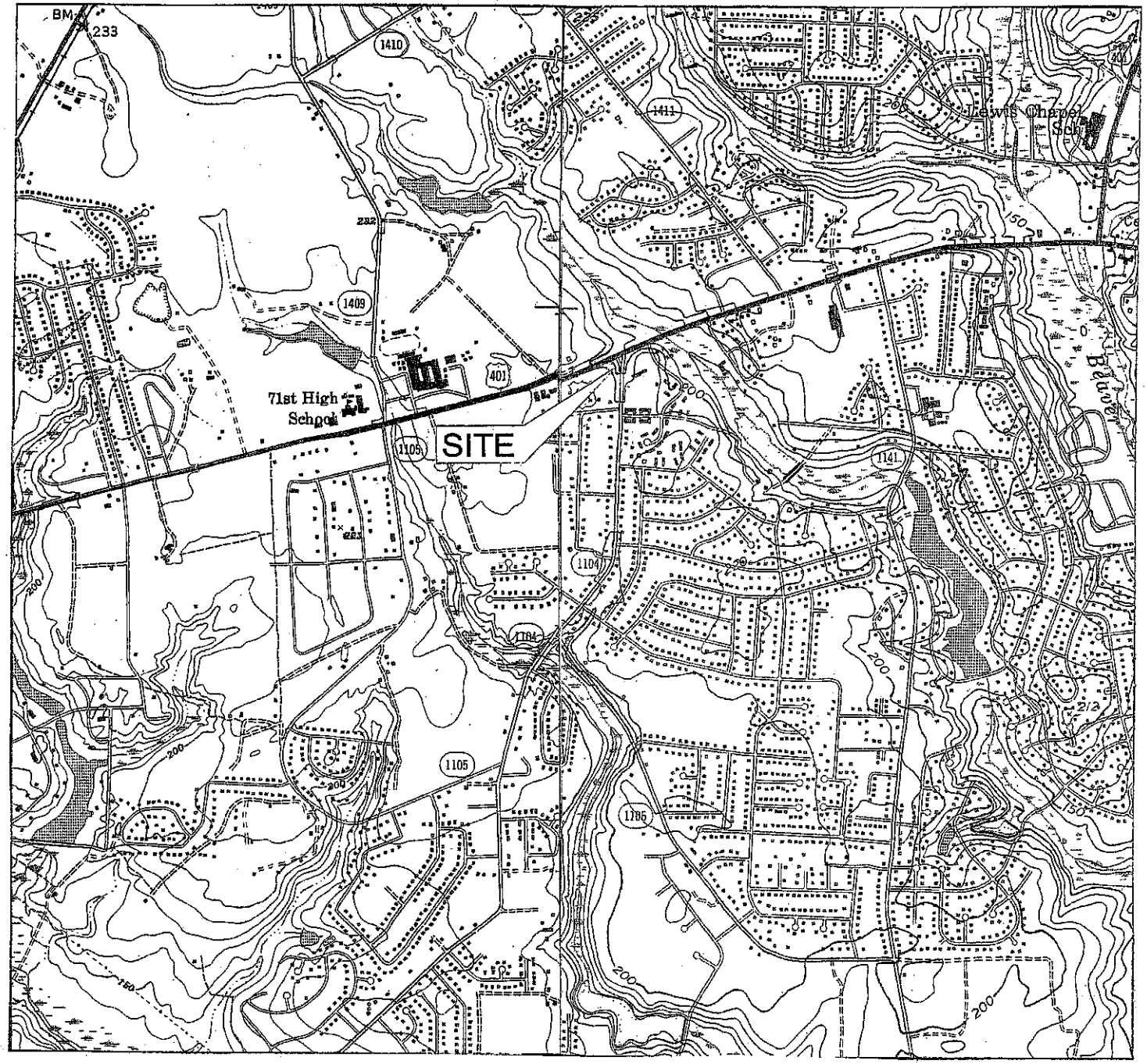
TABLE B-5A

Water Supply Well Information

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well #	Well Owner	Physical Address	Phone Number	Well Use	Well Depth (feet bls)	Type of Well	Well Casing Depth (feet bls)	Well Screen Interval (feet bls)	Distance from source area of release (feet)	Cardinal Direction from release
WW-1	Mary Morton Griffin Heirs 1104 Strickland Bridge Road Fayetteville, NC 28304	880 Strickland Bridge Road Fayetteville, NC 28304	Unk	Potable	Unk	Unk	Unk	Unk	350	S
WW-2	Brookwood Water Corporation 5948 Fisher Road, Ste. 101 Fayetteville, NC 28304	Jet Circle	(910) 867-4486	Potable	Unk	Unk	Unk	Unk	1,400	NE
WW-3	Brookwood Water Corporation 5948 Fisher Road, Ste. 101 Fayetteville, NC 28304	Bostian Drive	(910) 867-4486	Potable	Unk	Unk	Unk	Unk	1,700	S

Unk – Unknown Information



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

NORTH

N. C.

QUADRANGLE LOCATION

CONTOUR INTERVAL 10 FEET

CLIFDALE, N. C.
SE/4 CLIFDALE 15' QUADRANGLE
N3500—W7900/7.5

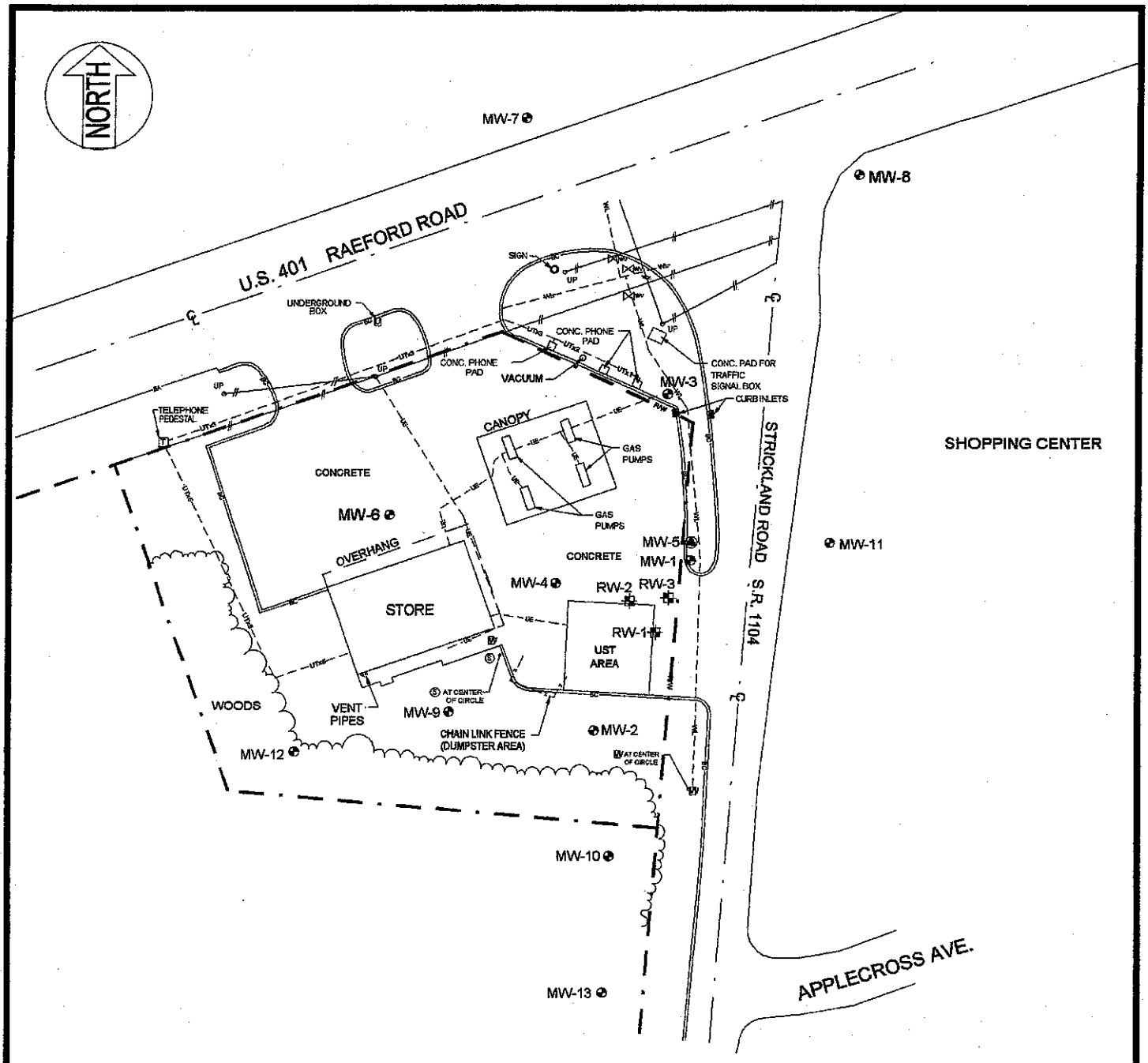
1948
PHOTOREVISED 1982
DMA 5154 II SE—SERIES V842

FAYETTEVILLE, N. C.
SW/4 FAYETTEVILLE 15' QUADRANGLE
35078-A8-TF-024

1957
PHOTOREVISED 1987
DMA 5254 III SW—SERIES V842

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 1: USGS QUADRANGLE MAP
THE PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, NC



LEGEND:

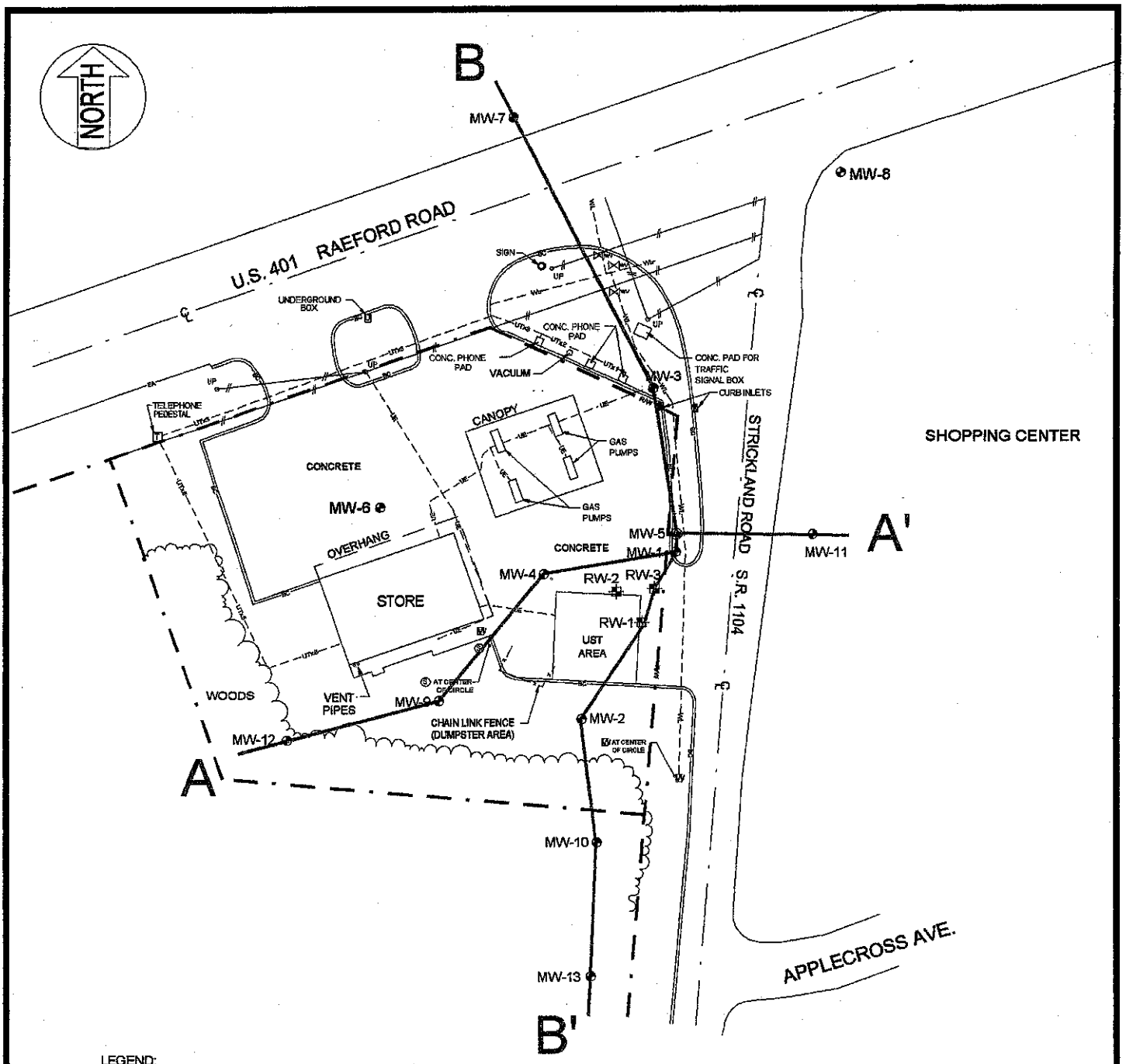
- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP — UTILITY POLE
- WATER METER
- WATER VALVE
- (S) — SANITARY MANHOLE
- OVERHEAD ELECTRIC LINE
- ----UE---- UNDERGROUND ELECTRIC LINE
- ----UT---- UNDERGROUND TELEPHONE LINE
- ----WL---- WATER LINE

0 30 60 FT.

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 2: SITE MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430	DATE: 4/25/03
DWG #PA4862C	DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP UTILITY POLE
- WATER METER
- WV WATER VALVE
- SANITARY MANHOLE
- OVERHEAD ELECTRIC LINE
- UE UNDERGROUND ELECTRIC LINE
- UT UNDERGROUND TELEPHONE LINE
- WL WATER LINE

SEI *Engineering & Geological Services, P.C.*
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FIGURE 5: LINES OF GEOLOGIC CROSS-SECTIO
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430	DATE: 4/25/03
DWG #PA4865C	DRAWN BY: JCJ

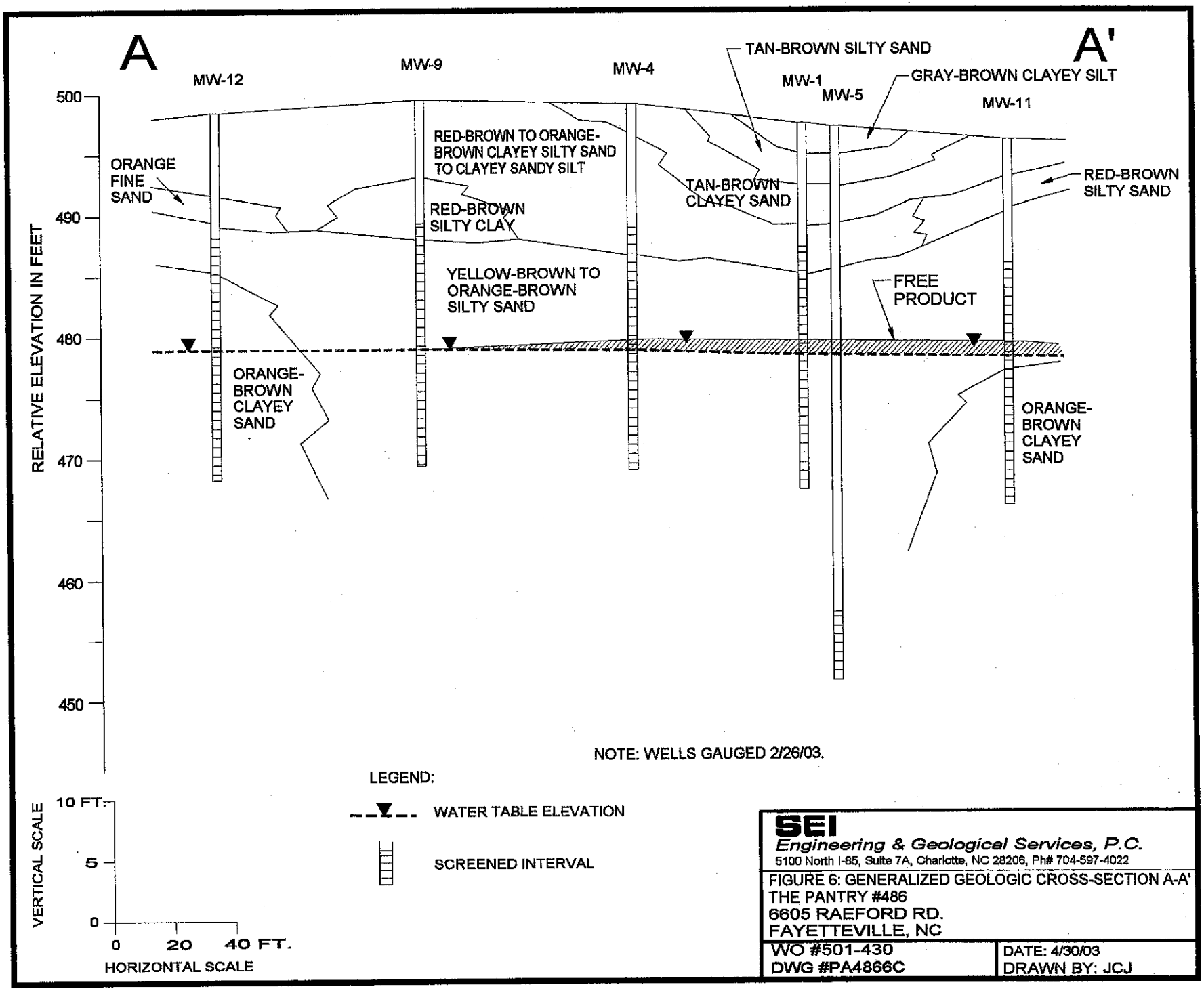

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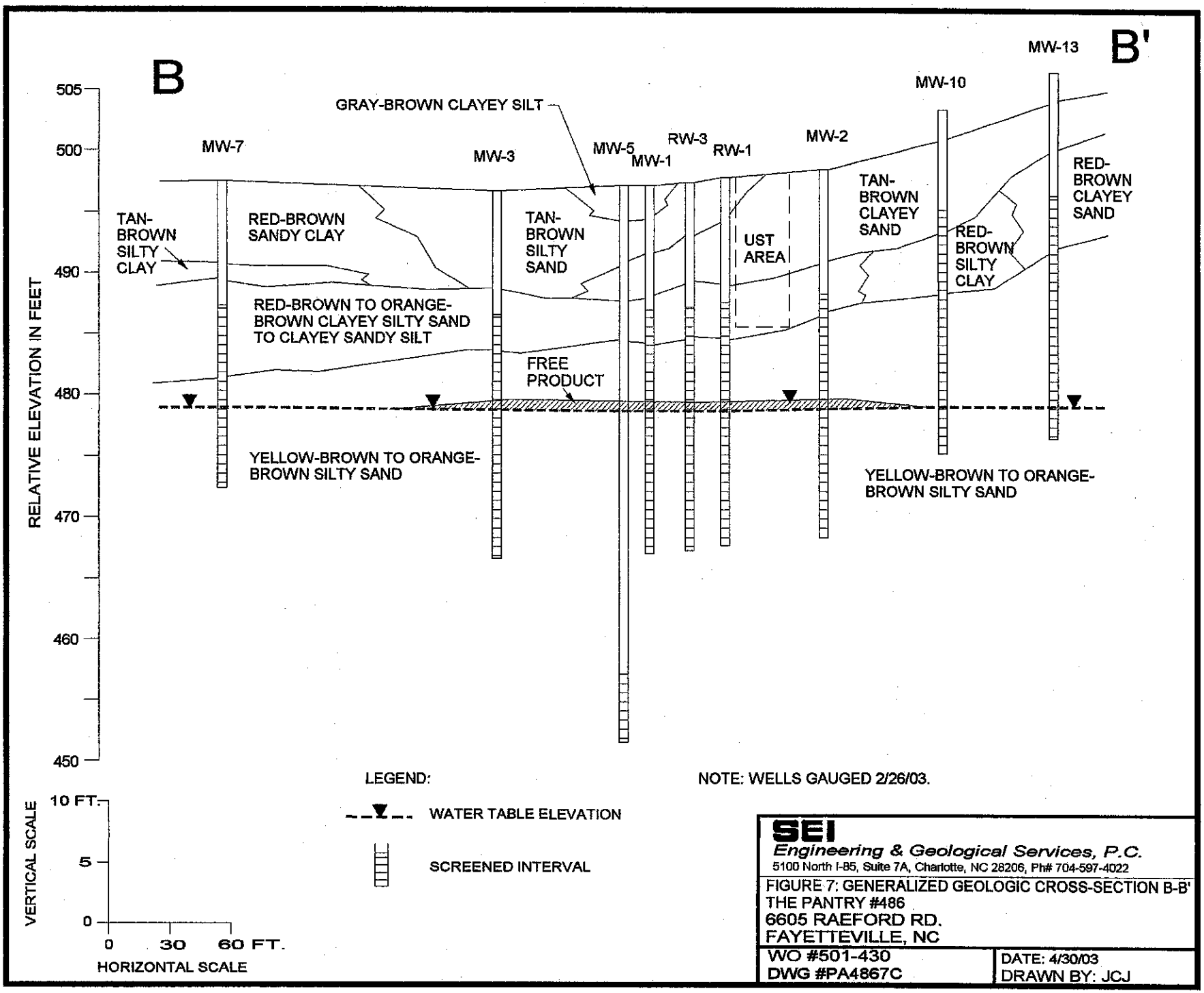
FIGURE 6: GENERALIZED GEOLOGIC CROSS-SECTION A-A'
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO #501-430	DATE: 4/30/03
DWG #PA4866C	DRAWN BY: JCJ



SEI
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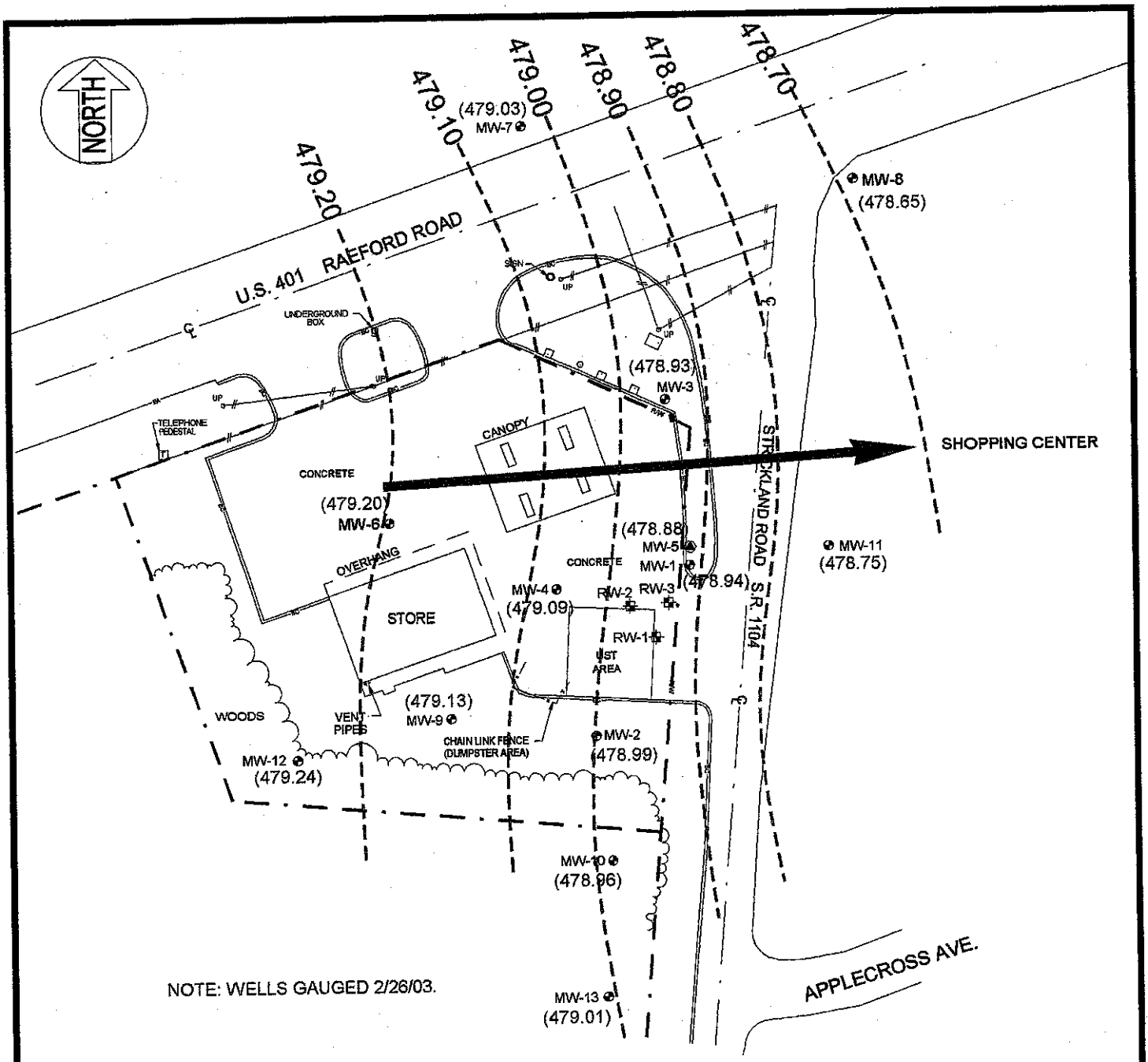
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 7: GENERALIZED GEOLOGIC CROSS-SECTION B-B'
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO #501-430
DWG #PA4867C

DATE: 4/30/03
DRAWN BY: JCJ

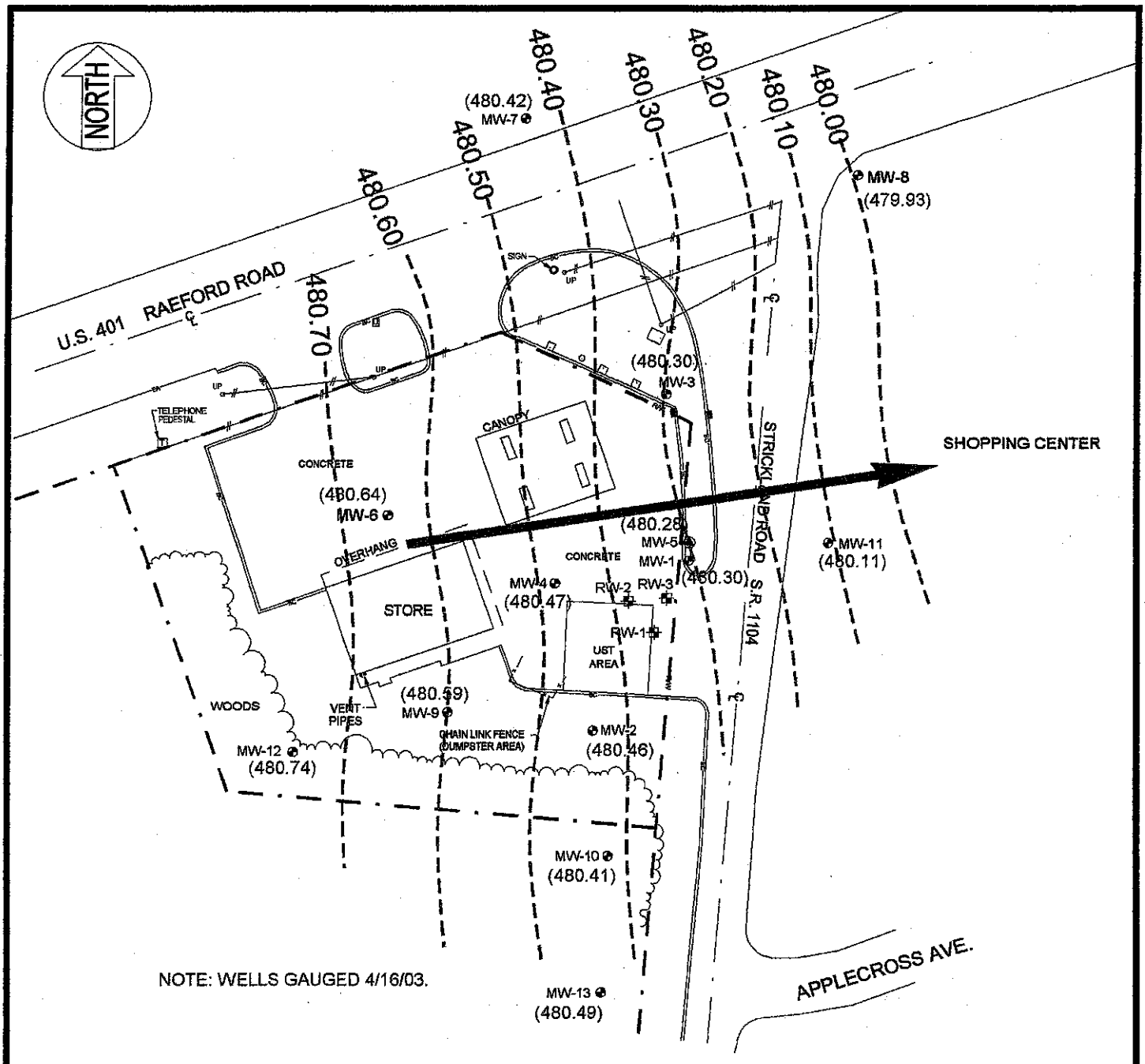


SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 8: GROUNDWATER ELEVATION CONTOUR MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA4868C

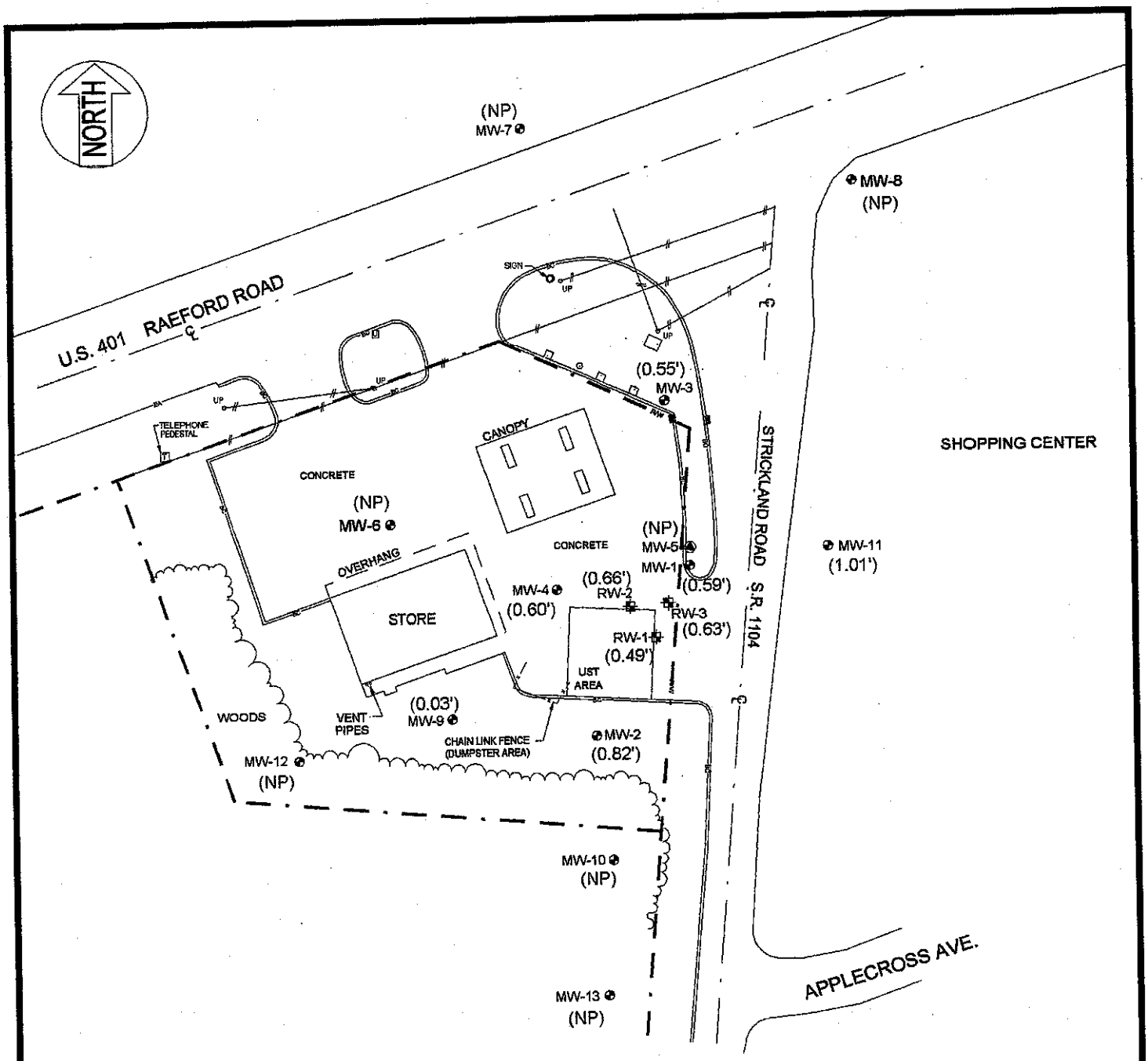
DATE: 4/25/03
DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 9: GROUNDWATER ELEVATION CONTOUR MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430	DATE: 4/25/03
DWG #PA4869C	DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP UTILITY POLE
- OVERHEAD ELECTRIC LINE
- (XXX) FREE PRODUCT THICKNESS(FT.)
  NP = NO PRODUCT

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 10: FREE PRODUCT THICKNESS MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48610C

DATE: 4/25/03
DRAWN BY: JCJ

SEI
Engineering & Geological Services, P.C.

JUL 11 2001

Limited Site Assessment Report

Site Location:
The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County

Site Owner:
The Pantry, Inc.
P. O. Box 1410
Sanford, North Carolina 27330

Prepared for:

The Pantry, Inc.
P. O. Box 1410
Sanford, North Carolina 27330
(919) 774-6700

Project Number: 501403
Facility ID Number: 0-023655
Incident Number: ~~Pending~~ 23062
Site Priority Ranking: ~~Pending~~ ~~[illegible]~~ High

General Site Information:
Surrounding Land Use – Commercial/Residential/Undeveloped
Latitude/Longitude – N 35° 2' 24" / W 78° 59' 50"
Release Date – March 21, 2001
Estimated Quantity – Unknown
Cause of Release – Underground storage tank system
UST Information – (3) 10,000-gallon gasoline

Prepared by:

NORTH CAROLINA LICENSED SEAL 1736 GEOLOGIST GRETCHEN L. MILLER

Gretchen L. Miller, P.G.
NC Licensed Geologist #1736
SEI Engineering and
Geological Services, P.C.
5100 I-85 Service Road, Suite 7A
Charlotte, North Carolina 28206

July 5, 2001

TABLE 1

Groundwater Analytical Results

The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County
Project Number: 501403

Sample Location	Date Sampled	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	IPE (µg/L)	Lead (mg/L)	EDB (µg/L)	C5-C8 Aliphatics (µg/kg)	C9-C12 Aliphatics (µg/kg)	C9-C10 Aromatics (µg/kg)
MW-1	04/30/01	Free Product Present										
MW-2	04/30/01	Free Product Present										
MW-3	04/30/01	**4,700**	**2,400**	**24,000**	**14,000**	**1,900**	BDL	BDL	BDL	**38,000**	**18,000**	**9,800**
MW-4	04/30/01	Free Product Present										
MW-5	04/30/01	**1.2**	1.1	5.8	32.9	78	3.7	BDL	BDL	260	49	54
2L Standards		**1**	**29**	**1,000**	**530**	**200**	**70**	**15**	**0.0004**	**420**	**4,200**	**210**
10 x 2L Standards		**10**	**290**	**10,000**	**5,300**	**2,000**	**700**	**150**	**0.004**	**4,200**	**42,000**	**2,100**
GCLs		**5,000**	**29,000**	**257,500**	**87,500**	**200,000**	**70,000**	**15**	**NE**	**NE**	**NE**	**NE**

µg/L - micrograms per liter
BDL – Below detection limits
Bold denotes concentration is greater than the 15A NCAC 2L Standard
GCL - Gross Contamination Level
NE – Not established

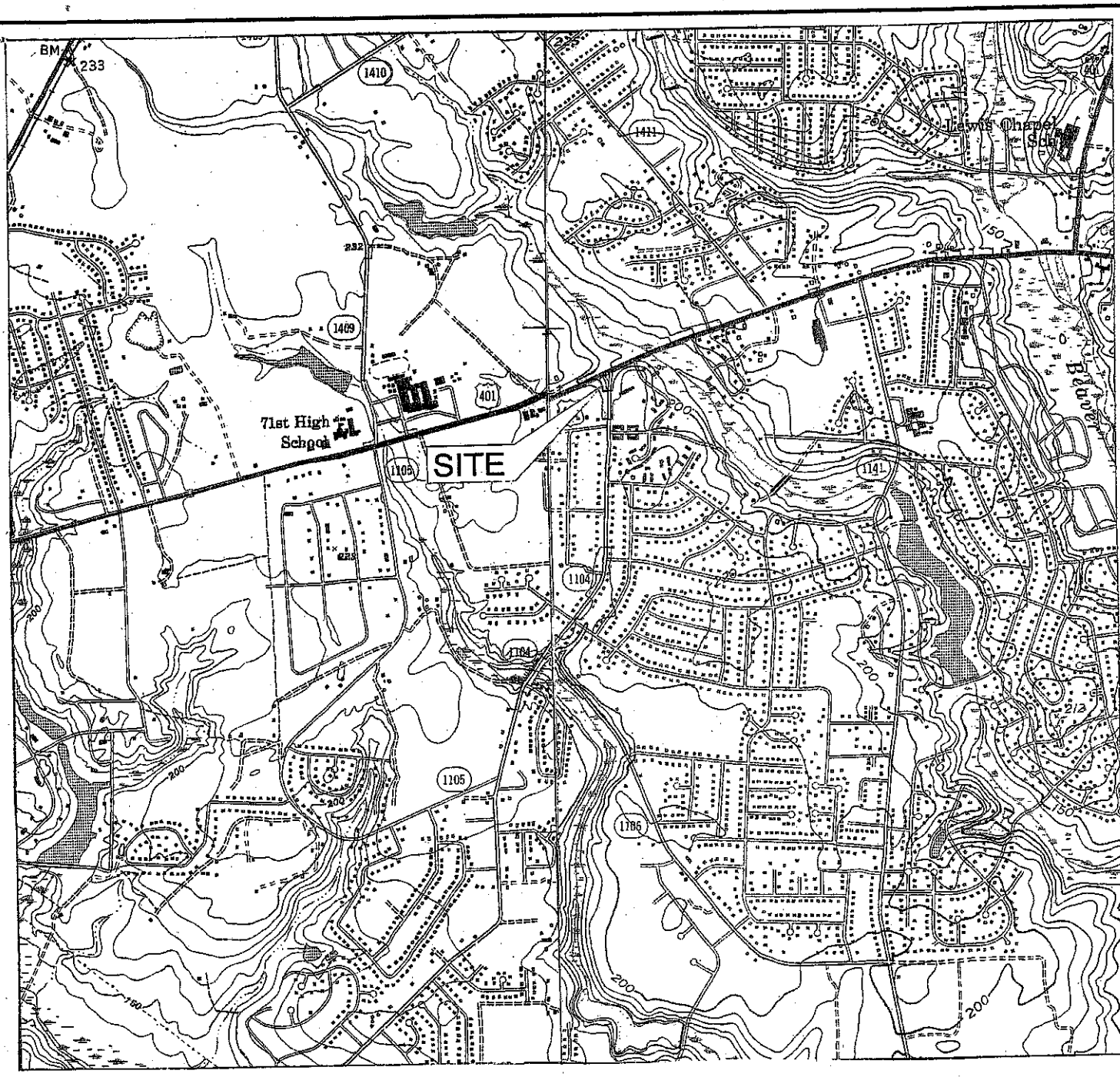
TABLE 2

Monitoring Well Construction and Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County
Project Number: 501403

Well ID	Date Installed	Total Depth (feet)	Screened Interval (feet)	Date Gauged	TOC Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
MW-1	03/22/01	30	10-30	04/30/01	496.98	16.52	18.87	479.99
MW-2	03/23/01	30	10-30	04/30/01	498.65	18.02	20.71	480.09
MW-3	03/23/01	30	10-30	04/30/01	496.65	--	16.85	479.80
MW-4	04/26/01	30	10-30	04/30/01	499.26	18.70	20.07	480.29
MW-5	04/26-27/01	45.5	41.1-45.5	04/30/01	496.88	--	17.10	479.78
RW-1	03/23/01	30	10-30	04/30/01	497.67	17.18	19.63	480.00
RW-2	03/23/01	30	10-30	04/30/01	498.14	17.63	20.05	480.03
RW-3	03/23/01	30	10-30	04/30/01	497.22	16.75	19.10	480.00

TOC – Top of casing elevations based on a survey by Chas. H. Sells, Inc.
*Groundwater Elevation = [(Top of Casing Elevation) - (DTW)] + (0.8*Product Thickness) ---- where applicable



SCALE 1:24000

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

NORTH

N.C.

QUADRANGLE LOCATION

CONTOUR INTERVAL 10 FEET

CLIFDALE, N.C.
SE/4 CLIFDALE 15' QUADRANGLE
N3500—W7900/7.5

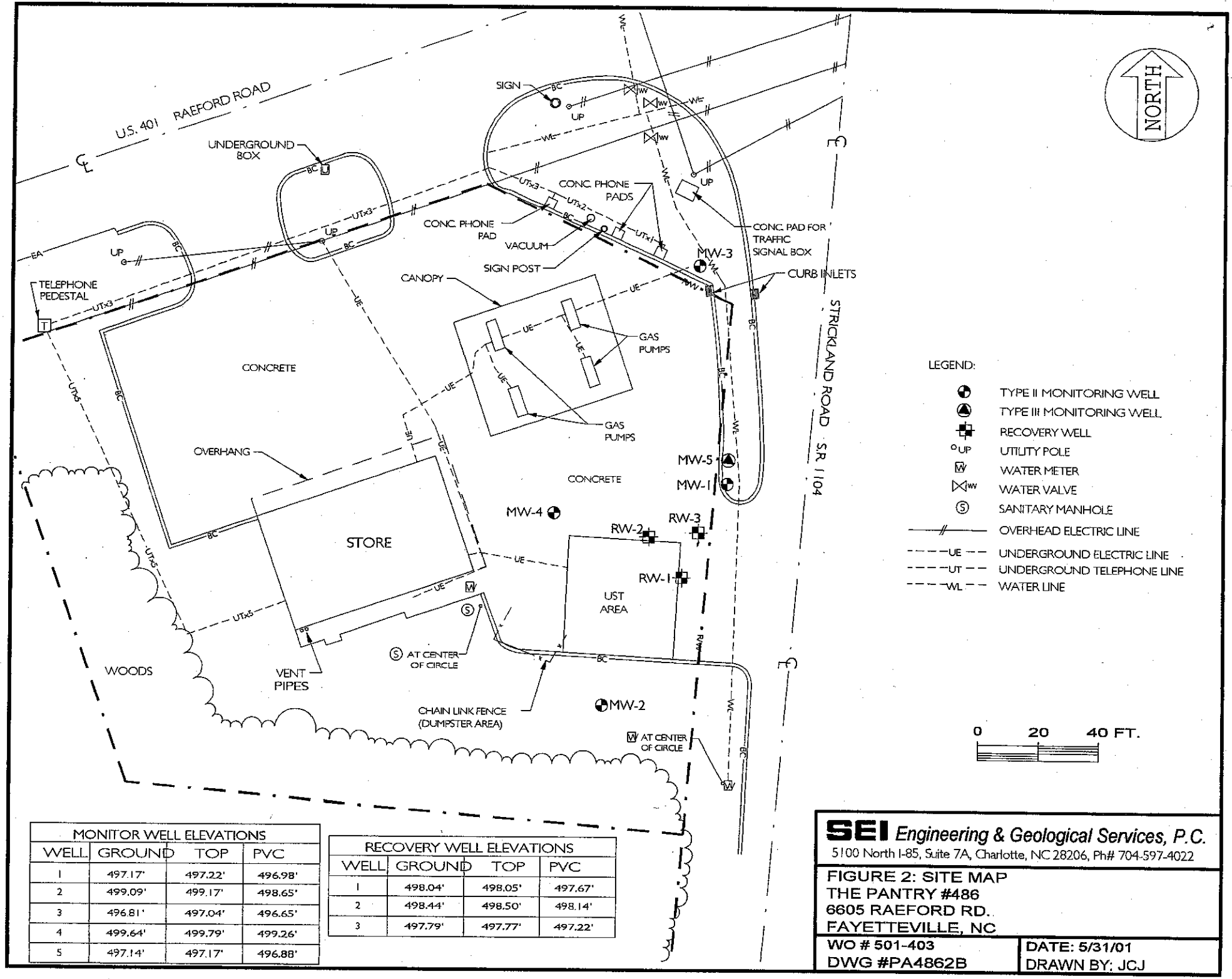
1948
PHOTOREVISED 1982
DMA 5154 II SE-SERIES V842

FAYETTEVILLE, N. C.
SW/4 FAYETTEVILLE 15' QUADRANGLE
35078-A8-TF-024

1957
PHOTOREVISED 1987
DMA 5254 III SW-SERIES V842

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 1: USGS QUADRANGLE MAP
THE PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, NC



MONITOR WELL ELEVATIONS			
WELL	GROUND	TOP	PVC
1	497.17'	497.22'	496.98'
2	499.09'	499.17'	498.65'
3	496.81'	497.04'	496.65'
4	499.64'	499.79'	499.26'
5	497.14'	497.17'	496.88'

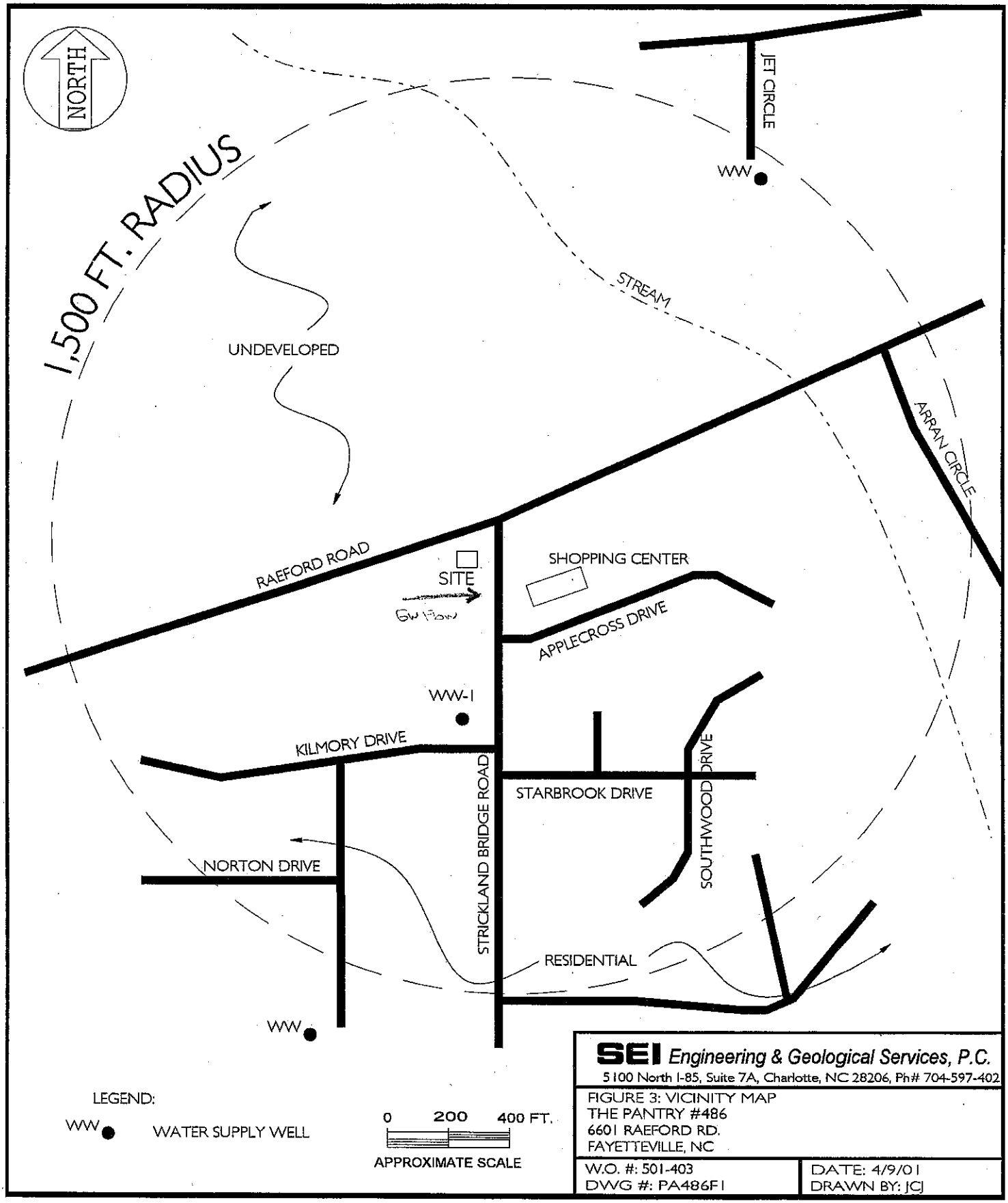
RECOVERY WELL ELEVATIONS			
WELL	GROUND	TOP	PVC
1	498.04'	498.05'	497.67'
2	498.44'	498.50'	498.14'
3	497.79'	497.77'	497.22'

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 2: SITE MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403
DWG #PA4862B

DATE: 5/31/01
DRAWN BY: JCJ

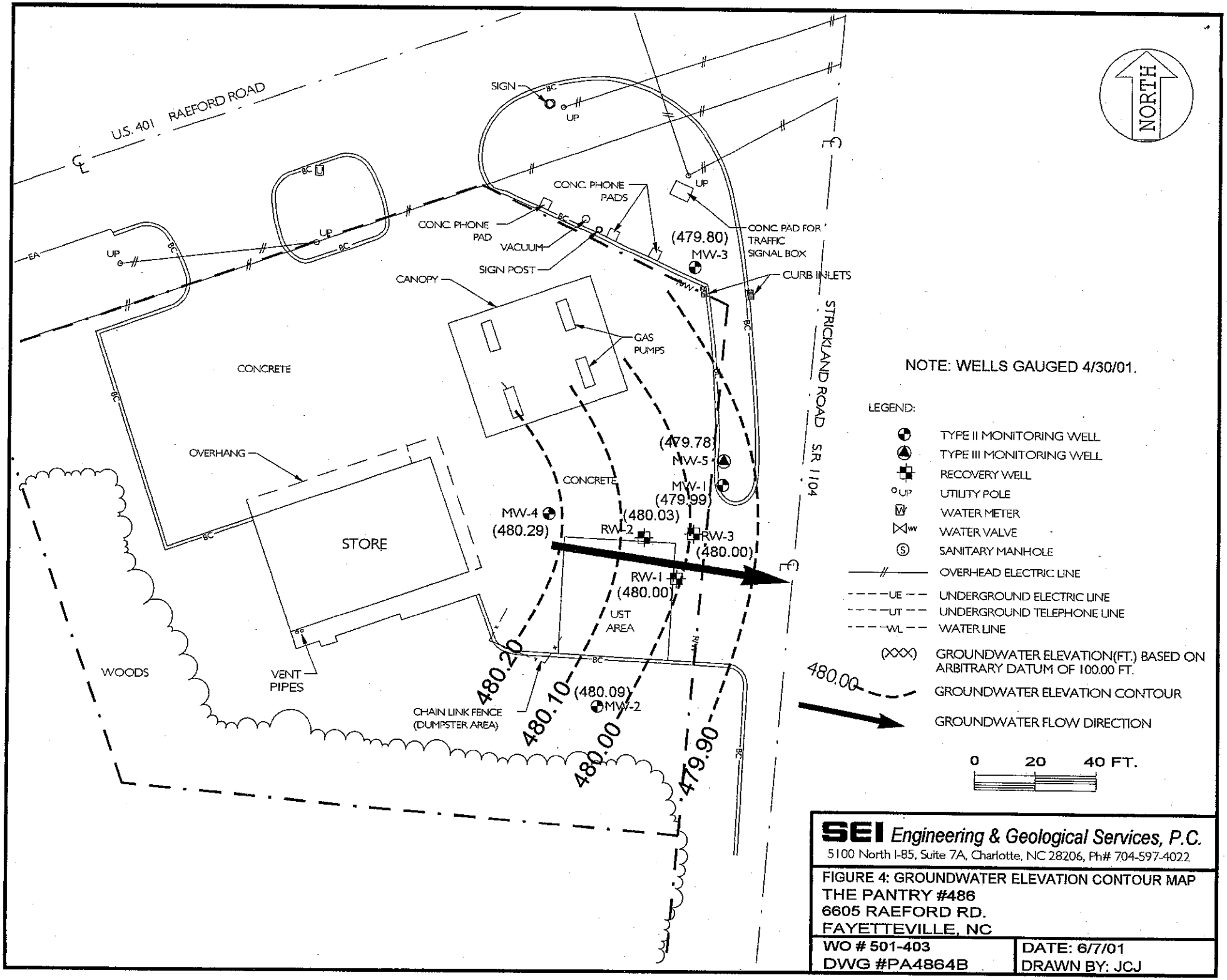


SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-402

FIGURE 3: VICINITY MAP
THE PANTRY #486
6601 RAEFORD RD.
FAYETTEVILLE, NC

W.O. #: 501-403
DWG #: PA486F1

DATE: 4/9/01
DRAWN BY: JCJ

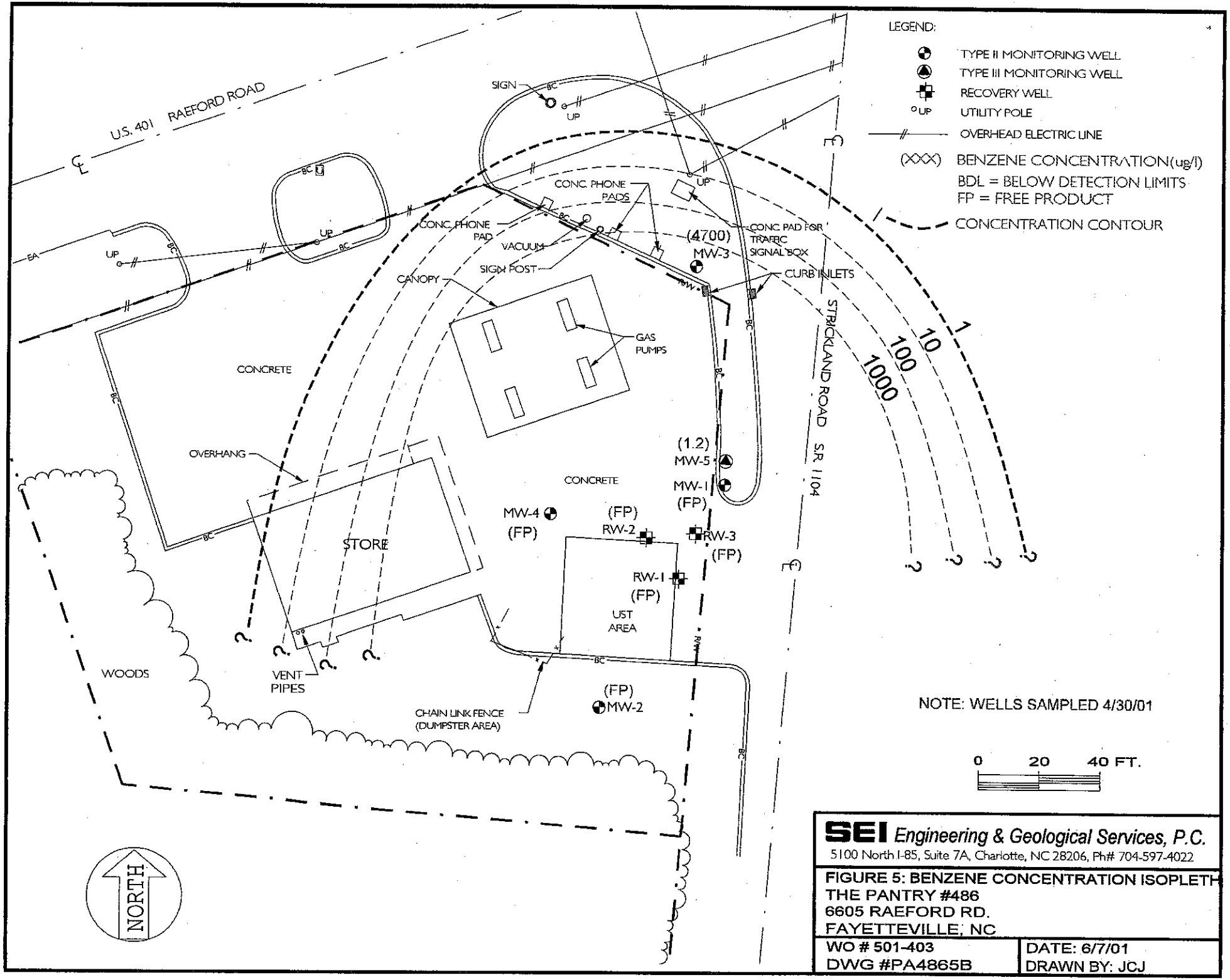


SEI Engineering & Geological Services, P.C.
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 4: GROUNDWATER ELEVATION CONTOUR MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403
DWG #PA4864B

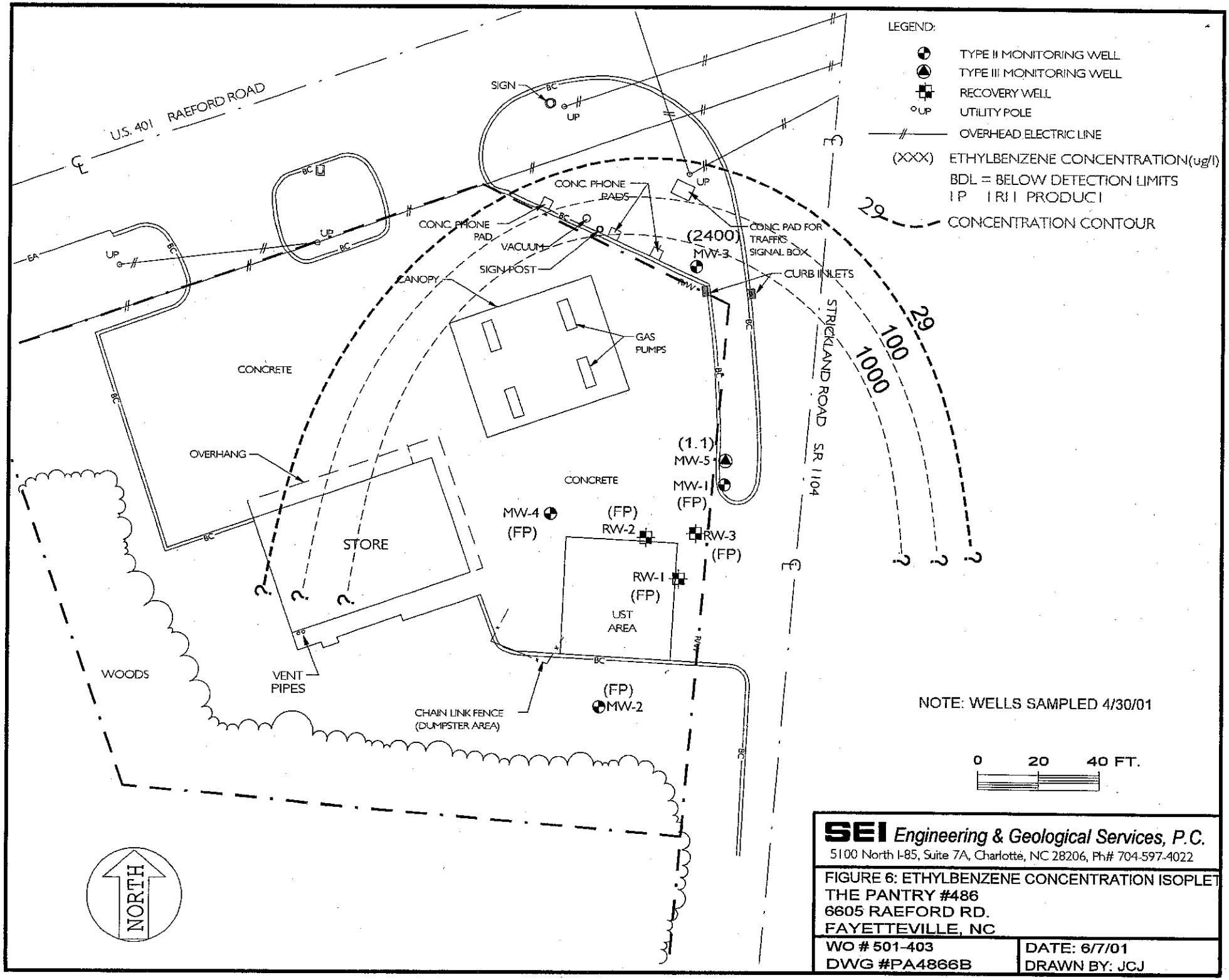
DATE: 6/7/01
DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 5: BENZENE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403	DATE: 6/7/01
DWG #PA4865B	DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 6: ETHYLBENZENE CONCENTRATION ISOPLET
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403	DATE: 6/7/01
DWG #PA4866B	DRAWN BY: JCJ

9307 Monroe Road, Suite K
Charlotte, North Carolina 28270
T 704.846.8853 F 704.846.3271
enviroassessments.com

enviroassessments

KANGAROO STATION

March 22, 2012

Frank Moody
C/o 6157 Crystal Dr., LLC
Dunn, North Carolina

Attention: Mr. Frank Moody

Reference: Phase II Environmental Site Assessment
Kangaroo Station
6605 Raeford Road (Highway 401)
Fayetteville, Cumberland County, North Carolina
EA Project No. 12-9183.1

Dear Mr. Moody:

EnviroAssessments (EA) has completed a Phase II Environmental Site Assessment (ESA) of the Kangaroo Station property (the "Project"), located at 6605 Raeford Road (Highway 401) in Fayetteville, Cumberland County, North Carolina. A Site Location Map is attached as **Figure 1**. The purpose of the Phase II ESA was to evaluate the Project with respect to potential contamination issues and concerns for a pending real estate transaction because the site operates as a gasoline station. Therefore, 6157 Crystal Dr., LLC requested a Phase II environmental site assessment (ESA) be performed for the Project to evaluate the potential for undocumented petroleum releases. Specifically, the Phase II ESA evaluated for the presence of petroleum and/or solvent compounds in the soil and groundwater at the Project from potential undocumented releases associated with the on-site UST system.

1.0 PROJECT HISTORY

The Project operates as a retail gasoline station/convenience store located in the southwest corner of the intersection of Raeford Road and Strickland Bridge Road at 6605 Raeford Road in Fayetteville, North Carolina. The Project is developed with a one-story convenience store building. According to the attached Notification for Underground Storage Tanks, dated May 1986, three 10,000-gallon gasoline USTs were installed in 1986 and are located in a tank basin east of the store building. The tanks were upgraded in 1994 to meet 1998 upgrade requirements. A copy of the most recent UST system inspection (UST-10B Form) on February 25, 2010 is also attached, no violations were reported. The current active UST system is a potential ongoing source of petroleum contamination to soil and/or groundwater at the Project and to nearby off-site properties. Spills and overfills of fuel during bulk fuel transfers to the UST systems and the current automobile filling operations from the dispensers are sources of petroleum contamination to soil and groundwater. The assessment and remediation of

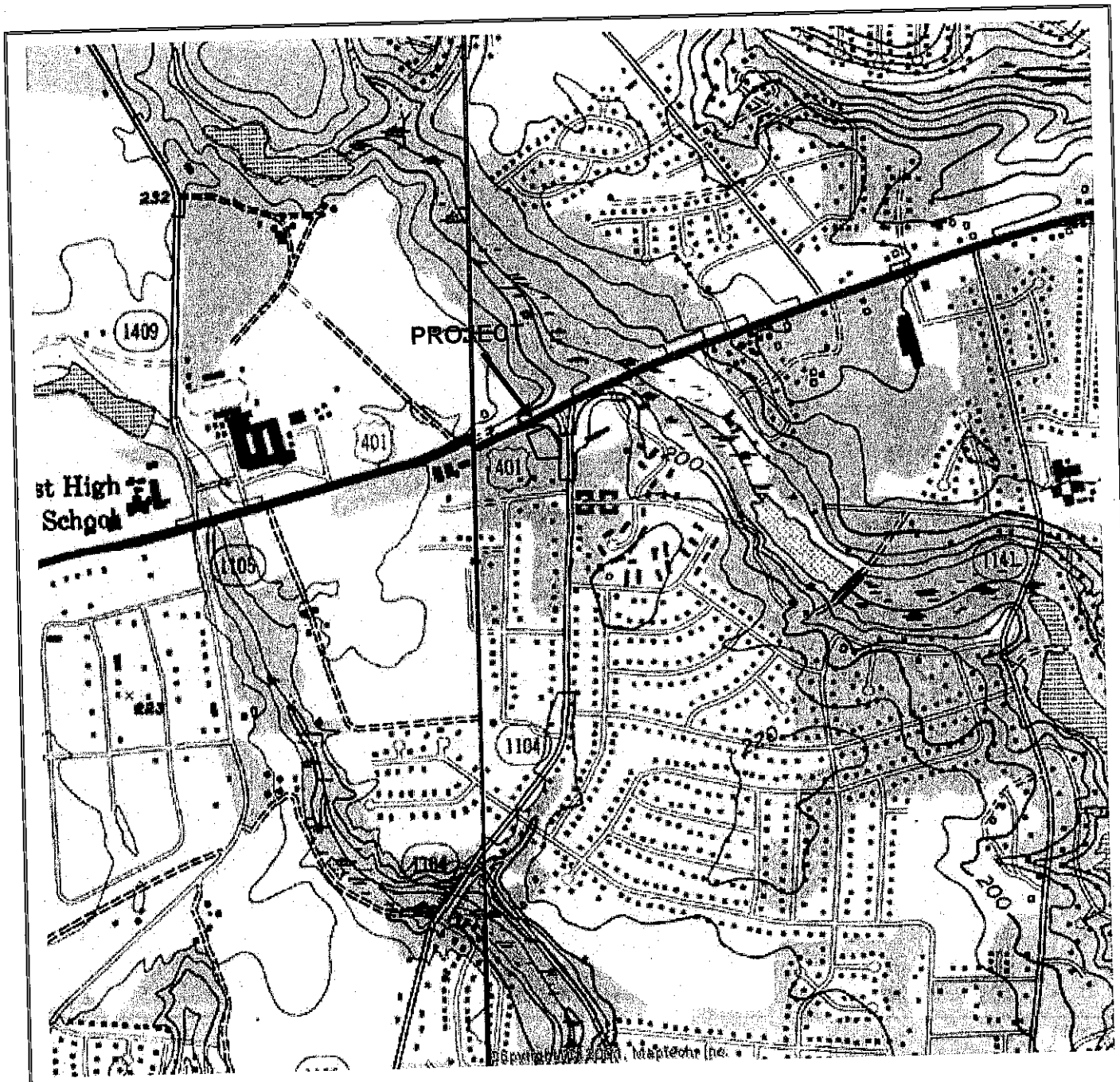


Figure 1 - Site Location Map

Source: USGS 7.5 Minute Topographic Map
Fayetteville, NC Quadrangle 1957, Revised 1987

Scale: 1 : 24,000 N↑

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enviroassessments.com

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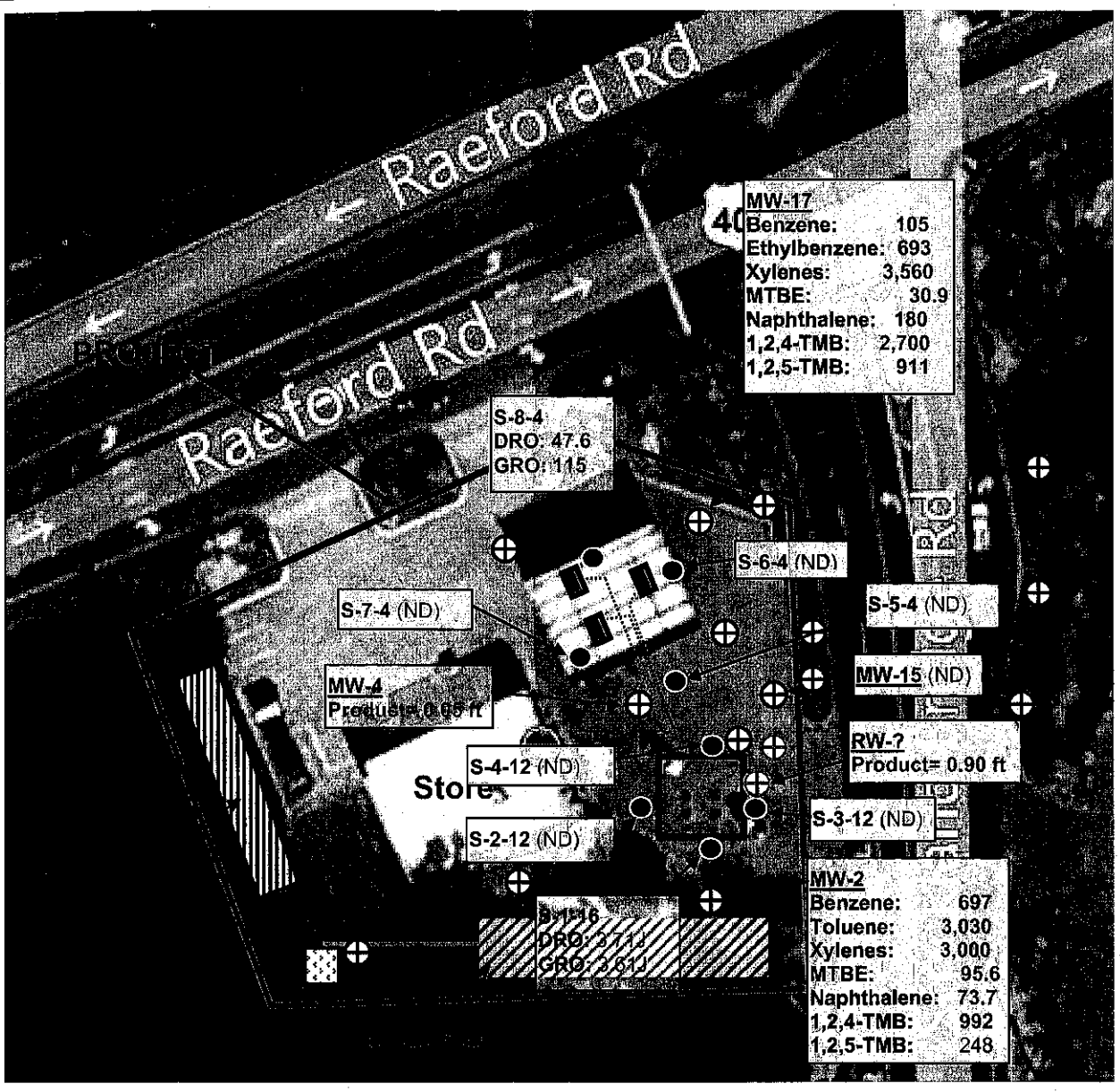
Site Name: Kangaroo Station
6605 Raeford Road (Hwy 401)
Fayetteville, Cumberland Co,
North Carolina

EA Project Number: 12-9183.1



KEY

- Soil Sample Location
- Approximate Existing Monitoring Well Location
- Approximate Existing Recovery Well Location
- Current Gasoline UST Basin
- ..... Fuel Product Lines
- Gasoline Dispenser

*Refer to Table 4 for all other detected target analytes in groundwater

* Soil concentrations are reported in milligrams per kilograms (mg/kg).

* Groundwater concentrations are reported in micrograms per liter (ug/L).

***BOLD** depicts target analytes which exceed state standards

Figure 2: Site Plan

Source: Bing Maps

Scale: NTS

9307 Monroe Road, Suite K
Charlotte, North Carolina 28270
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enviroassessments.com

enviroassessments

Site Name: Kangaroo Station
6605 Raeford Road (Hwy 401)
Fayetteville, Cumberland Co,
North Carolina

EA Project # 12-9183.1

TABLE 2

SOIL ANALYTICAL RESULTS
KANGAROO STATION
6605 RAEFORD ROAD (HIGHWAY 401)
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA
ENVIROASSESSMENTS PROJECT NO. 12-9183.1

Sample ID	Analytical Method	S-1-16	S-2-12	S-3-12	S-4-12	S-5-4	S-6-4	S-7-4	S-8-4	NC Action Level
Sample Depth (ft, bgs)		16	12	12	12	4	4	4	4	
Collection Date		3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	
Total Petroleum Hydrocarbons(TPH) - Gasoline Range Organics (GRO)										
TPH	GRO	3.61 J	ND	ND	ND	ND	ND	ND	**115**	10
Total Petroleum Hydrocarbons (TPH) - Diesel Range Organics (DRO)										
TPH	DRO	3.71 J	ND	ND	ND	ND	ND	ND	**47.6**	10

Notes:
All concentrations are reported in milligrams per kilogram (mg/kg).
BOLD results exceed the NC Action Level of 10 mg/kg for TPH
ft, bgs - feet below ground surface
ND - Not Detected
J - Estimated value above laboratory method detection limits and below laboratory reporting limits.

TABLE 4

GROUNDWATER SAMPLING ANALYTICAL RESULTS
KANGAROO STATION
6605 RAEFORD ROAD (HIGHWAY 401)
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA
ENVIROASSESSMENTS, PLLC PROJECT NO. 12-9183.1

Sample ID / Collection Date	Analytical Method	MW-2 3/1/2012	MW-15 3/1/2012	MW-17 3/1/2012	NCAC 2L Groundwater Standard	Gross Contamiantion Level (GCL)
Volatile Organic Compounds by EPA Method 8260B						
Acetone	8260B	613 J	ND	ND	6000	6000000
Benzene	8260B	**697**	ND	**105**	1	5000
Toluene	8260B	**3030**	ND	575	600	260000
Ethylbenzene	8260B	491	ND	**693**	600	84500
Isopropylbenzene	8260B	36.9 J	ND	ND	70	25000
Xylenes, total	8260B	**3000**	ND	**3560[a]**	500	85500
n-Butylbenzene	8260B	ND	ND	**82.6**	70	6900
sec-Butylbenzene	8260B	ND	ND	53.2	70	8500
p-Isopropyltoluene	8260B	ND	ND	26.1	NE	NE
Naphthalene	8260B	**73.7 J**	ND	**180**	6	6000
n-Propylbenzene	8260B	**115**	ND	**525**	70	3000
1,2,4-Trimethylbenzene	8260B	**992**	ND	**2700[a]**	400	28500
1,2,5-Trimethylbenzene	8260B	248	ND	**911**	400	25000
Methyl Tert-Butyl Ether (MTBE)	8260B	**95.6**	ND	**30.9**	20	20000
Polycyclic Aromatic Hydrocarbons (PAH) by EPA Method 8270C						
Fluorene	8270C	ND	ND	0.52 J	300	990
1-Methylnaphthalene	8270C	19.4	ND	35.9	NE	NE
2-Methylnaphthalene	8270C	**37.6**	ND	**79.8[a]**	30	12500
Naphthalene	8270C	**68.5[a]**	ND	**76.3[a]**	6	6000
Phenanthrene	8270C	0.30 J	ND	0.43 J	200	410

Notes:
All concentrations are reported in micrograms per liter(ug/L).
BOLD results exceed their respective NCAC 2L Groundwater Standard.
ND - Not Detected
NE - Not Established
J - Estimated value above laboratory detection limits and below laboratory reporting limits.
a - Result is from Run #2

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ACTIVE REMEDIATION MONITORING REPORT

PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina
Incident # 23062
Facility I.D. Number: 0-023655

Risk Classification: Intermediate
Ranking: I175D
Land Use Category: Residential

Responsible Party:
The Pantry, Inc.
305 Gregson Drive
Cary, North Carolina 27511
(919) 774-6700

Current Property Owner:
6157 Crystal Drive LLC
Post Office Box 926
Dunn, North Carolina 28335

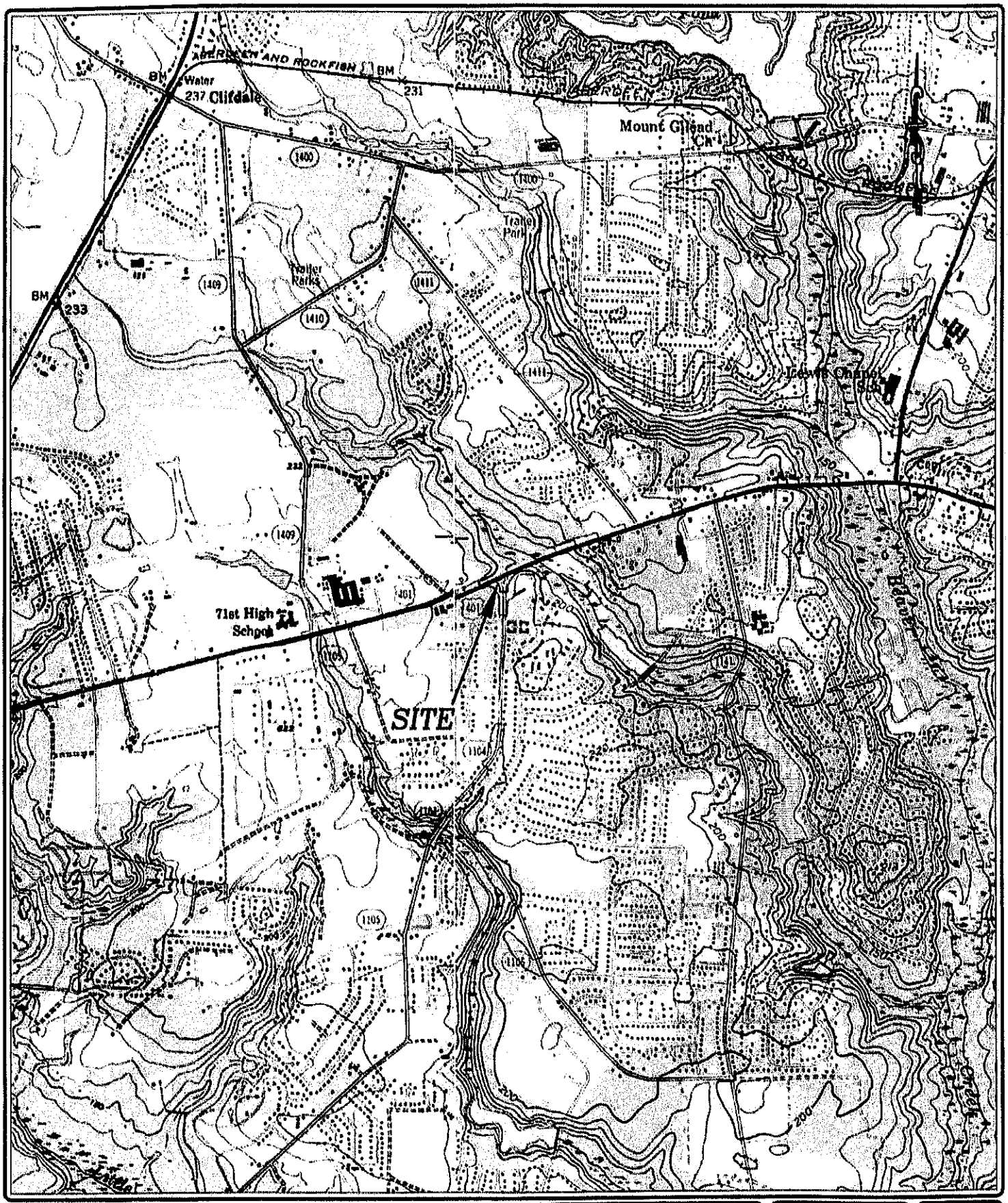
Report Prepared By:
Withers & Ravenel, Inc.
115 MacKenan Drive
Cary, North Carolina 27511
(919) 469-3340
W&R Project #02071121.0

Release Discovered:	March 21, 2001
Release Quantity:	Unknown
Cause/Source of Release:	Apparent UST System

UST System:	3 - 10,000 Gallon Gasoline USTs
Latitude:	N 35° 02' 24"
Longitude:	W 78° 59' 50"

C. Chan Bryant, P.E.

September 4, 2015



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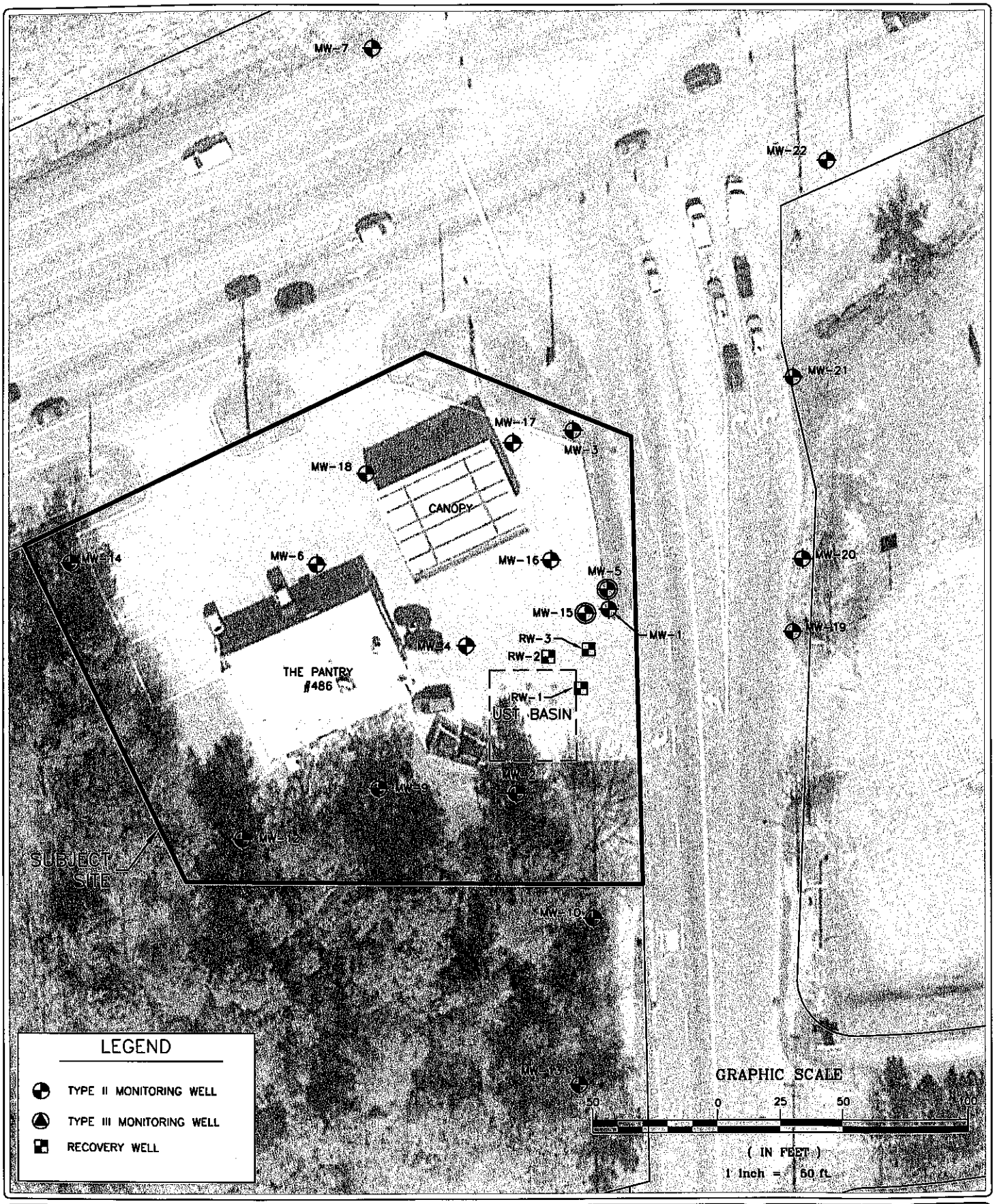
111 McKenon Drive Cary, North Carolina 27511 www.withersravenel.com
tel: 919-460-6006 fax: 919-535-4545

GENERAL LOCATION MAP
PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, NORTH CAROLINA
USGS CLIFFDALE & FAYETTEVILLE, NC
7.5 min. Quadrangle

DRAWN BY:	SCALE:	FIGURE NO.
PCF	1"=2000	1
APPROVED BY:	DATE:	JOB NO:
CB	01/23/08	02071121

K:\07\07-1120\071121-PANTRY 486\CAD\MAPS.DWG 7/14/2010 2:02 PM FABRIDAN, JUSTIN



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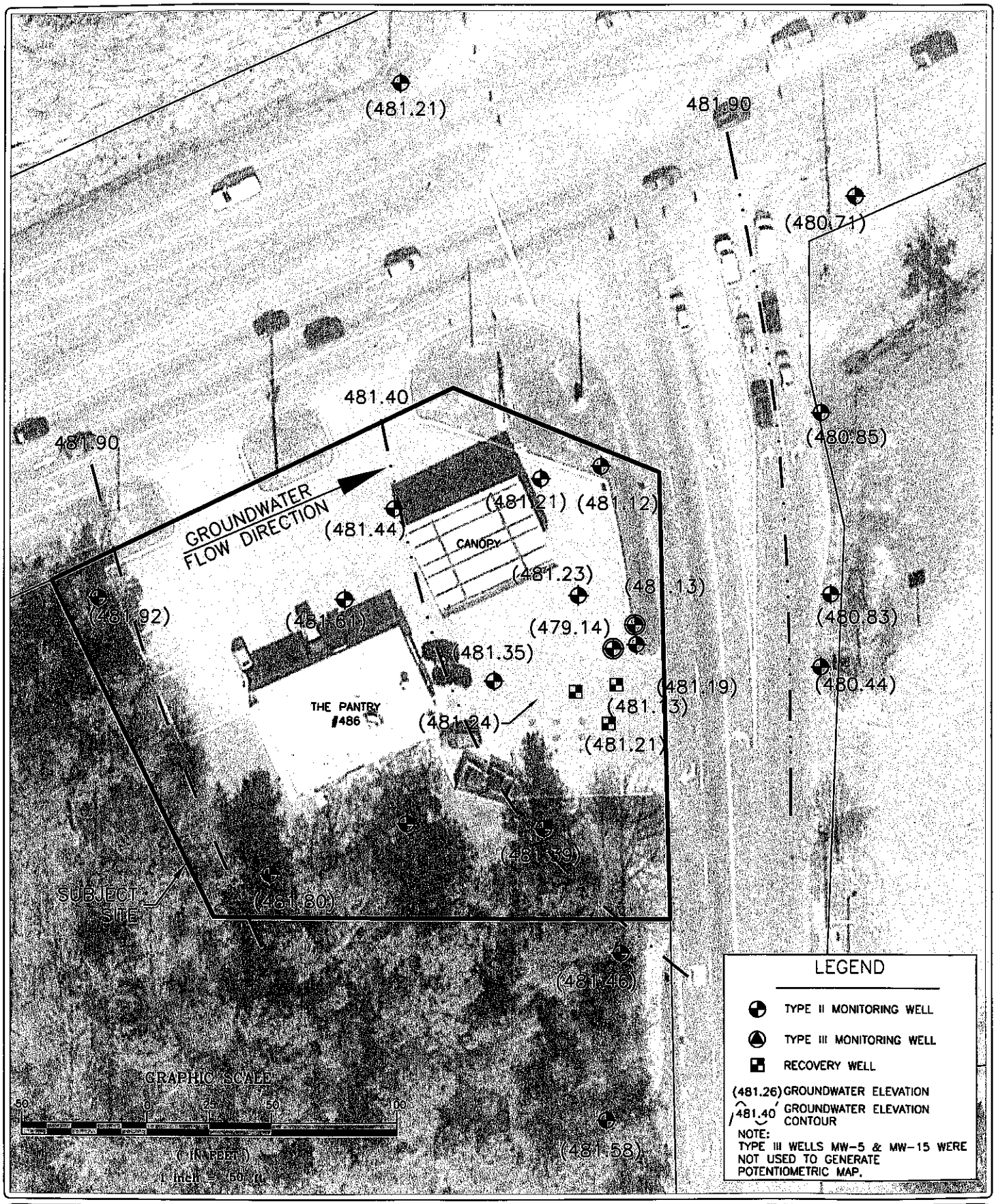
PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

SITE MAP

DRAWN BY:	SCALE:	FIGURE NO.
MJ	1"=50'	3
APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

K:\07\07-1120\071121-PANTRY 486\CAD\BASE MAP - JUNE 2015.DWG 6/12/2015 4:58 PM JAMES, MATT 1:1



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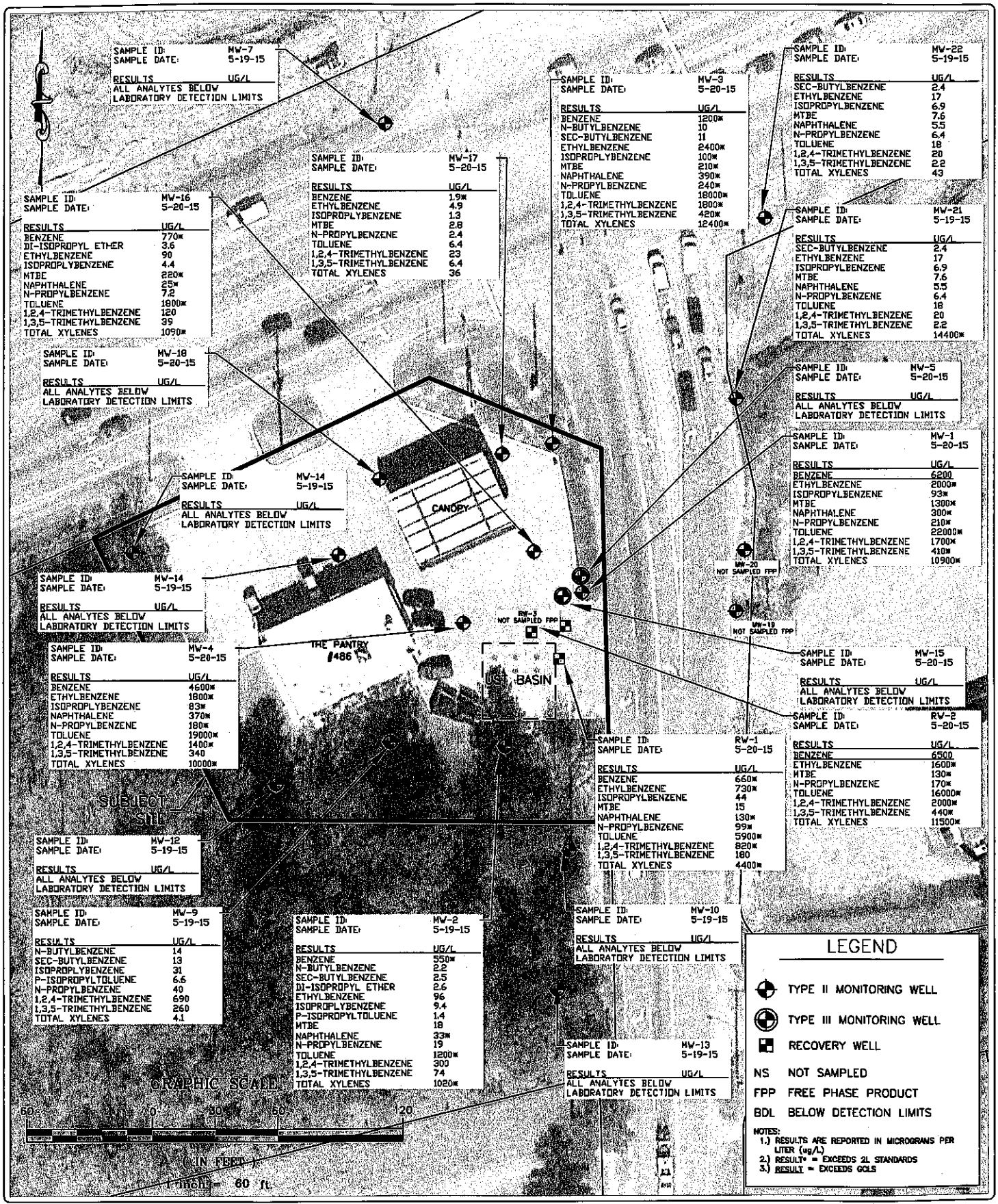
tel: 919-4469-3340 fax: 919-467-6008

PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

POTENTIOMETRIC MAP - SEPTEMBER 2014

DRAWN BY:	SCALE:	FIGURE NO.
WRP	1"=50'	4
APPROVED BY:	DATE:	JOB NO:
KTC	10/30/14	02071121.0

K:\07\07-1120\071121-PANTRY 486\CAD\BASE MAP - JUNE 2015.DWG 6/12/2015 5:00 PM JAMES, MATT 1:1



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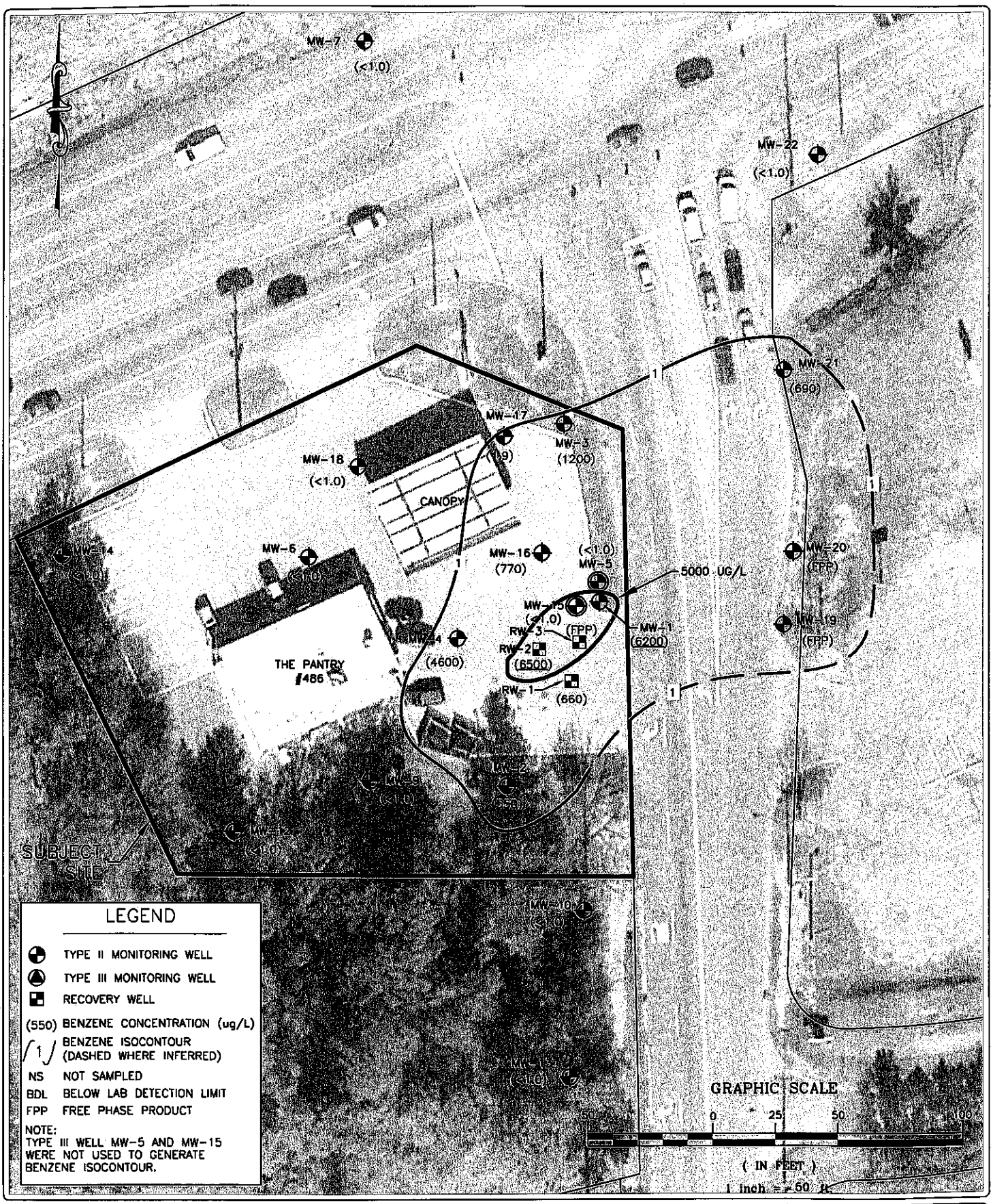
PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

GROUNDWATER ANALYTICAL RESULTS

DRAWN BY:	SCALE:	FIGURE NO.
MJ	1"=60'	5
APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

K:\07\07-1120\071121-PANTRY 486\CAD\BASE MAP - JUNE 2015.DWG 9/8/2015 12:47 PM JAMES, MATT 1:1



LEGEND

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- (550) BENZENE CONCENTRATION (ug/L)
- 1 BENZENE ISOCONTOUR (DASHED WHERE INFERRED)
- NS NOT SAMPLED
- BDL BELOW LAB DETECTION LIMIT
- FPP FREE PHASE PRODUCT

NOTE:
TYPE III WELL MW-5 AND MW-15 WERE NOT USED TO GENERATE BENZENE ISOCONTOUR.

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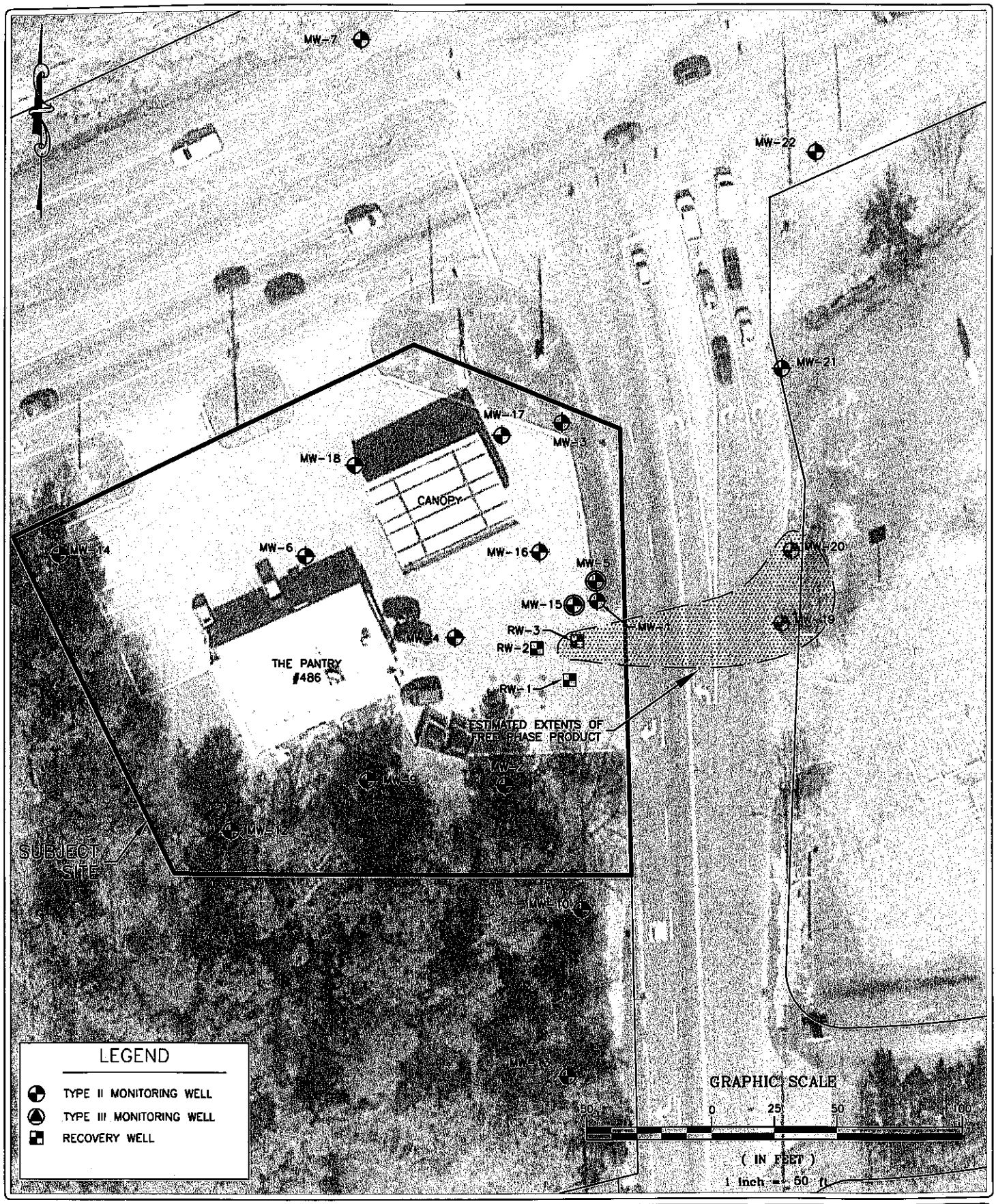
PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

BENZENE ISOCONCENTRATION MAP

DRAWN BY:	SCALE:	FIGURE NO.
MJ	1"=50'	6
APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

K:\07\07-1120\071121-PANTRY 486\CAD\BASE MAP - JUNE 2015.DWG 6/12/2015 5:06 PM JAMES, MATT 1:1



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PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

FREE PRODUCT MAP-MAY 2015

DRAWN BY:	SCALE:	FIGURE NO.
MJ	1"=50'	7
APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

K:\07\07-1120\071121-PANTRY 486\CAD\BASE MAP - JUNE 2015.DWG 6/12/2015 5:07 PM JAMES, MATT 1:1

TABLE 6
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-1						
	6/4/2010	12/15/2010	7/26/2012	6/8/2013	12/27/2013	9/12/201	5/20/2014
Volatile Organic Compounds(VOCs) by EPA Method 6200B							
Benzene	470	9,800	NS	6,300	NAPL	1,500	8,700
Di-isopropyl ether (IPE)	BDL	BDL	NS	BDL		BDL	BDL
Ethylbenzene	300	3,600	NS	1,900		1,000	2,000
Isopropylbenzene	27	BDL	NS	BDL		61	93
Methyl tertiary-butyl ether (MTBE)	370	62,000	NS	7,200		160	1,300
Naphthalene	67	BDL	NS	BDL		190	390
n-Propylbenzene	45	670	NS	BDL		180	210
p-Isopropyltoluene	11	BDL	NS	BDL		BDL	BDL
n-Butylbenzene	BDL	BDL	NS	BDL		10	BDL
sec-Butylbenzene	BDL	BDL	NS	BDL		9.9	BDL
Toluene	1,900	20,000	NS	24,000		9,300	22,000
1,2,4-Trimethylbenzene	530	4,100	NS	4,500		6,100	5,200
1,3,5-Trimethylbenzene	140	2,000	NS	350		310	910
Xylenes, Total	2,150	21,200	NS	10,700		5,200	10,900

Compound	MW-2						MW-3					
	6/4/2010	12/15/2010	7/26/2012	12/27/2013	9/12/2016	5/19/2015	6/4/2010	12/15/2010	7/26/2012	12/27/2013	9/12/2014	5/20/2015
Benzene	640	NS	180	NAPL	28	650	490	NS	NS	NAPL	950	1,200
Di-isopropyl ether (IPE)	BDL	NS	BDL		BDL	2.6	BDL	NS	NS		BDL	BDL
Ethylbenzene	510	NS	100		100	96	660	NS	NS		3,000	2,400
Isopropylbenzene	BDL	NS	100		8.5	9.4	BDL	NS	NS		75	100
Methyl tertiary-butyl ether (MTBE)	260	NS	47		1.1	18	64	NS	NS		230	210
Naphthalene	BDL	NS	28		22	33	BDL	NS	NS		290	390
n-Propylbenzene	84	NS	22		19	19	74	NS	NS		190	240
p-Isopropyltoluene	BDL	NS	BDL		BDL	1.4	BDL	NS	NS		BDL	BDL
n-Butylbenzene	BDL	NS	2.3		1.7	2.2	BDL	NS	NS		BDL	10
sec-Butylbenzene	BDL	NS	1.9		1.7	2.5	BDL	NS	NS		BDL	11
Toluene	3,200	NS	1,000		570	1,200	5,300	NS	NS		13,000	19,000
1,2,4-Trimethylbenzene	780	NS	260		180	300	780	NS	NS		1,400	1,800
1,3,5-Trimethylbenzene	190	NS	57		44	74	200	NS	NS		320	420
Xylenes, Total	2,500	NS	2,010		780	1,920	4,300	NS	NS		26,000	12,400

Compound	MW-4						NCAC 2L STD (µg/l)	GCL (µg/l)
	6/4/2010	12/15/2010	7/26/2012	12/27/2013	9/11/114	6/20/2016		
Benzene	1,800	NS	NS	NAPL	6,500	4,800	1.0	5,000
Di-isopropyl ether (IPE)	BDL	NS	NS		BDL	BDL	70	70,000
Ethylbenzene	1,200	NS	NS		10,000	1,800	600	84,500
Isopropylbenzene	58	NS	NS		1,300	683	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	NS	NS		BDL	BDL	20	20,000
Naphthalene	BDL	NS	NS		BDL	370	6	6,000
n-Propylbenzene	140	NS	NS		4,200	180	70	30,000
p-Isopropyltoluene	BDL	NS	NS		780	BDL	NL	NL
n-Butylbenzene	BDL	NS	NS		680	BDL	70	6,900
sec-Butylbenzene	BDL	NS	NS		BDL	BDL	70	8,500
Toluene	8,200	NS	NS		40,000	19,000	600	260,000
1,2,4-Trimethylbenzene	1,000	NS	NS		24,000	4,400	400	28,500
1,3,5-Trimethylbenzene	210	NS	NS		6,800	340	400	25,000
Xylenes, Total	6,600	NS	NS		55,000	40,000	500	86,500

Notes:

All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #488
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-5									MW-6									NCAC 2L STD (µg/l)	GCL (µg/l)
	1/28/2008	10/7/2009	6/4/2010	12/16/2010	7/26/2012	5/8/2013	12/27/2013	9/12/2014	5/20/2015	2/28/2008	10/6/2009	6/4/2010	12/16/2010	12/16/2010	7/26/2012	5/13/2013	12/27/2013	9/11/2014	5/19/2015	
Volatile Organic Compounds (VOCs) by EPA Method 6200B																				
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	[redacted]	[redacted]	[redacted]	2.0	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	25,000
Methyl tertiary-butyl ether (MTBE)	40	2.1	BDL	5.2	BDL	1.3	5.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6	5,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	260,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	2.6	BDL	BDL	BDL	BDL	BDL	BDL	1.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	25,000
Xylenes, Total	BDL	BDL	BDL	3.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-7									MW-8					MW-8									NCAC 2L STD	GCL
	2/26/2009	10/7/2009	6/4/2010	12/18/2010	7/26/2012	5/8/2013	5/8/2013	9/11/2014	5/19/2015	1/29/2009	10/7/2009	6/4/2010	12/18/2010	7/26/2012	1/28/2009	10/6/2009	6/4/2010	12/15/2010	7/26/2012	5/8/2013	5/8/2013	9/11/2014	5/19/2015	(µg/l)	(µg/l)
Volatile Organic Compounds (VOCs) by EPA Method 6200B																									
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	[redacted]	BDL	BDL	DESTROYED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		250	14	37	BDL	4.3	BDL	BDL	BDL	BDL	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	64	[redacted]	[redacted]	41	50	68	53	31	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	29	BDL	BDL	BDL	BDL	BDL	BDL	[redacted]	16	[redacted]		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	36	[redacted]	BDL	[redacted]	BDL	BDL	BDL	BDL	6	6,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	[redacted]	[redacted]	[redacted]	52	59	[redacted]	[redacted]	46	70	33,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		9.3	21	38	59	4.3	BDL	35	7.2	6.6	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	12	BDL	56	12	16	14	14	14	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		16	8.3	13	BDL	10	13	12	16	13	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	280,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	240	360	[redacted]	220	260	400	[redacted]	260	400	25,000
Xylenes, Total	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	270	412	390	38.1	BDL	21	11	4.1	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
[redacted] = Result Exceeds Laboratory Detection Limits
[redacted] = Result Exceeds 2L Standard
[redacted] = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6565 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-10									MW-12						MW-13									NCAC 2L STD	GCL
	1/29/2009	10/6/2009	6/4/2010	12/16/2010	7/27/2012	5/13/2013	12/27/2013	9/11/2014	5/19/2015	6/4/2010	12/16/2010	7/27/2012	12/27/2013	9/11/2014	5/19/2015	1/29/2009	10/6/2009	6/4/2010	12/16/2010	7/27/2012	5/13/2013	12/27/2013	9/11/2014	5/19/2015	(µg/l)	(µg/l)
Volatile Organic Compounds (VOCs) by EPA Method 6200B																										
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	DRY	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (DPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6	6,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	260,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	1.3	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	25,000
Xylenes, Total	BDL	BDL	BDL	BDL	BDL	BDL	3.8	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-14									MW-15										MW-15				NCAC 2L STD (µg/l)	GCL (µg/l)
	1/29/2008	10/6/2009	6/4/2010	12/15/2010	7/26/2012	5/8/2013	12/30/2013	9/11/2014	6/19/2015	1/29/2008	10/7/2009	6/4/2010	12/15/2010	7/26/2012	5/13/2013	6/13/2013	9/12/2014	6/20/2015	——	5/13/2013	12/30/2013	9/12/2014	6/20/2015		
Volatile Organic Compounds (VOCs) by EPA Method 8260B																									
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	61	NAPL	60	77	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	3.6	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	34		11	90	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	2		1.5	4.4	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	5	4.6	BDL	BDL	BDL	BDL	8.2	BDL	1.1	8.9	BDL	BDL	BDL	BDL	BDL	NS	22		27	230	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	6.8		BDL	25	6	6,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	4		2.3	7.2	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	BDL	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	BDL	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	500		85	1800	600	260,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	3	2.2	BDL	BDL	BDL	BDL	8.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	48		21	120	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	16		7.5	38	400	25,000
Xylenes, Total	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	19.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	280		111	1080	500	85,500

Notes:
All results in ug/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6685 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-17					MW-18					MW-19			MW-20				MW-21				MW-22					NCAC 2L STD	GCL
	7/26/2012	5/8/2013	12/27/2013	9/11/2014	5/20/2015	7/26/2012	5/13/2013	12/30/2013	9/11/2014	5/20/2015	12/30/2013	9/11/2014	5/28/2015	7/27/2012	12/30/2013	9/11/2014	5/28/2015	7/27/2012	12/30/2013	9/12/2014	5/19/2015	7/27/2012	5/8/2013	12/30/2013	9/12/2014	5/19/2015	(µg/l)	(µg/l)
Volatile Organic Compounds (VOCs) by EPA Method 8200B																												
Benzene	BDL	6.2	BDL	BDL	1.9	78.6	12	BDL	BDL	BDL				13,000				500	970	540	690	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				BDL				BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	1.4	4.8	10	5.3	BDL	BDL	BDL				2,800				2,500	5,300	2,700	2,900	BDL	BDL	BDL	169	17	600	84,500
Isopropylbenzene	BDL	3	BDL	BDL	1.3	6	7.6	BDL	BDL	BDL				BDL				130	270	110	100	BDL	BDL	BDL	20	6.9	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	BDL	2.8	10	6.8	BDL	BDL	BDL				25,000				140	270	220	170	6.9	1.9	BDL	7.2	7.6	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				BDL				BDL	720	BDL	360	BDL	BDL	BDL	47	5.5	6	6,000
n-Propylbenzene	BDL	6.1	BDL	1.9	BDL	6	24.0	BDL	BDL	BDL				BDL				150	600	320	270	BDL	BDL	BDL	31	6.4	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	1	6.0	BDL	BDL	BDL	NAPL	NAPL	NAPL	BDL	NAPL	NAPL	NAPL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	3	27.0	BDL	BDL	BDL				BDL				BDL	BDL	BDL	11	BDL	BDL	BDL	BDL	BDL	70	8,500
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	3	12.0	BDL	BDL	BDL				BDL				BDL	BDL	BDL	13	BDL	BDL	BDL	BDL	2.4	70	8,500
Toluene	BDL	29	BDL	5.5	6.4	BDL	BDL	BDL	BDL	BDL				39,000				11,000	19,000	14,000	17,000	BDL	BDL	BDL	110	18	600	260,000
1,2,4-Trimethylbenzene	BDL	35	2.1	12	23	62	110	BDL	BDL	BDL				14,000				2,300	4,200	2,400	1,900	BDL	BDL	BDL	240	20	400	28,500
1,3,5-Trimethylbenzene	BDL	12	BDL	4.1	6.4	27	52	BDL	BDL	BDL				BDL				400	1,200	640	420	BDL	BDL	BDL	492	2.2	400	25,000
Xylenes, Total	BDL	73	8.1	13	36	73	36.2	BDL	BDL	BDL				11,000				13,100	25,500	15,200	14,400	BDL	BDL	BDL	980	43	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 7
FREE PRODUCT MONITORING AND RECOVERY HISTORICAL SUMMARY
Pantry #486 (Incident: #23062, Facility ID: 0-023655)
6605 Raeford Road

Monitoring/Revovery Date		June 18, 2012		October 31, 2011		March 16, 2011		December 15, 2010		November 29, 2010		May 24, 2010		October 6, 2009	
Well ID	**Screened Interval**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**
MW-1	10 - 30	17.58	0.20	17.75	0.20	17.25	0.02	16.89	-	16.92	0.10	NM	NM	17.20	0.08
MW-2	10 - 30	19.01	-	19.22	-	18.87	0.02	18.51	0.10	18.63	0.28	NM	NM	18.74	0.18
MW-3	10 - 30	17.47	0.02	17.60	0.02	17.00	0.07	16.71	0.20	17.51	1.01	NM	NM	16.93	0.29
MW-4	10 - 30	19.87	0.15	19.92	0.12	19.47	0.02	19.16	0.20	19.10	0.10	NM	NM	19.30	0.33
MW-16	10 - 30	18.61	0.06	18.30	0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-17	10 - 30	18.44	0.04	18.62	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-18	10 - 30	19.50	-	18.82	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-19	10 - 30	18.22	0.04	18.40	0.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-20	10 - 29	17.18	0.04	17.41	0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-21	10 - 29	16.05	0.04	16.20	0.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-22	10 - 30	17.76	-	17.98	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RW-1	10 - 30	18.16	0.07	18.31	0.04	17.94	0.01	N/A	N/A	17.77	0.77	N/A	N/A	N/A	N/A
RW-2	10 - 30	18.54	0.02	18.35	0.01	17.50	0.01	N/A	N/A	18.02	0.02	N/A	N/A	N/A	N/A
RW-3	10 - 30	17.79	0.18	17.98	0.16	17.54	-	N/A	N/A	17.20	0.12	N/A	N/A	N/A	N/A
Recovery Method		MMPE Event		Bailer		N/A - Monitoring Event		N/A - Monitoring Event		MMPE Event		MMPE Event		N/A - Monitoring Event	
Recovery Volume		~11,397 Gallons Water/Petroleum Mixture ~46 Gallons NAPL		~20 Gallons Water/Petroleum Mixture ~8.0 Gallons NAPL		None		None		~12,967Gallons Water/Petroleum Mixture ~44 Gallons NAPL		~8,502 Gallons Water/Petroleum Mixture ~54 Gallons NAPL		None	

Notes:
1.) Depth-to-Water and Free Product Thickness measurements represent conditions prior to the associated recovery event.

ATTACHMENT B

Pyramid Geophysics

PYRAMID GEOPHYSICAL SERVICES
(PROJECT 2016-265)

GEOPHYSICAL SURVEY

METALLIC UST INVESTIGATION:
PARCEL 072 – 6157 CRYSTAL DRIVE, LLC
NCDOT PROJECT U-4405

6605 RAEFORD RD., FAYETTEVILLE, CUMBERLAND COUNTY, NC

NOVEMBER 4, 2016

Report prepared for: Mike Branson
Solutions, IES
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GEOPHYSICAL INVESTIGATION REPORT
Parcel 072 – 6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

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Figures

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LIST OF ACRONYMS

CADD	Computer Assisted Drafting and Design
DF	Dual Frequency
EM	Electromagnetic
GPR	Ground Penetrating Radar
GPS	Global Positioning System
NCDOT	North Carolina Department of Transportation
ROW	Right-of-Way
SVE	Soil Vapor Extraction
UST	Underground Storage Tank

EXECUTIVE SUMMARY

Project Description: Pyramid Environmental conducted a geophysical investigation for Solutions, IES (Solutions) at Parcel 072, located at 6605 Raeford Road, Fayetteville, NC. The survey was part of a North Carolina Department of Transportation (NCDOT) Right-of-Way (ROW) investigation (NCDOT Project U-4405). Solutions directed Pyramid as to the geophysical survey boundaries at the project site, which were designed to extend from the existing edge of pavement to the proposed ROW lines and/or easement lines within the property, whichever distance was greater. Conducted from October 12-17, 2016, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

Geophysical Results: An existing tank bed containing known USTs was present on the south side of the property, directly west of the survey area. A significant portion of the site contained metal-reinforced concrete, resulting in widespread interference in the EM survey. All EM anomalies not caused by the metal reinforcement were directly attributed to cultural features such as signs, utilities, guy wires, and storm sewer structures. A formal grid of GPR scans was performed across the areas containing reinforced concrete to investigate below the reinforcement for USTs. No evidence of larger structures such as tanks was observed. Collectively, the geophysical data did not show any evidence of unknown metallic USTs at Parcel 072.

INTRODUCTION

Pyramid Environmental conducted a geophysical investigation for Solutions, IES (Solutions) at Parcel 072, located at 6605 Raeford Road, Fayetteville, NC. The survey was part of a North Carolina Department of Transportation (NCDOT) Right-of-Way (ROW) investigation (NCDOT Project U-4405). Solutions directed Pyramid as to the geophysical survey boundaries at the project site, which were designed to extend from the existing edge of pavement to the proposed ROW lines and/or easement lines within the property, whichever distance was greater. Conducted from October 12-17, 2016, the geophysical investigation was performed to determine if unknown, metallic underground storage tanks (USTs) were present beneath the survey area.

The site included an active service station with a pump island, canopy, asphalt parking areas and grass medians. Aerial photographs showing the survey area boundaries and ground-level photographs are shown in **Figure 1**.

FIELD METHODOLOGY

The geophysical investigation consisted of electromagnetic (EM) induction-metal detection and ground penetrating radar (GPR) surveys. Pyramid collected the EM data using a Geonics EM61 metal detector integrated with a Trimble AG-114 GPS antenna. The integrated GPS system allows the location of the instrument to be recorded in real-time during data collection, resulting in an EM data set that is geo-referenced and can be overlain on aerial photographs and CADD drawings. A boundary grid was established around the perimeter of the site with marks every 10 feet to maintain orientation of the instrument throughout the survey and assure complete coverage of the area.

According to the instrument specifications, the EM61 can detect a metal drum down to a maximum depth of approximately 8 feet. Smaller objects (1-foot or less in size) can be detected to a maximum depth of 4 to 5 feet. The EM61 data were digitally collected at approximately 0.8 foot intervals along north-south trending or east-west trending, generally

parallel survey lines spaced five feet apart. The data were downloaded to a computer and reviewed in the field and office using the Geonics NAV61 and Surfer for Windows Version 11.0 software programs.

GPR data were acquired across select EM anomalies on October 17, 2016, using a Geophysical Survey Systems, Inc. (GSSI) UtilityScan DF unit equipped with a dual frequency 300/800 MHz antenna. Data were collected both in reconnaissance fashion as well as along formal transect lines across EM features. The GPR data were viewed in real-time using a vertical scan of 512 samples, at a rate of 48 scans per second. GPR data were viewed down to a maximum depth of approximately 4 feet, based on dielectric constants calculated by the DF unit in the field during the reconnaissance scans. GPR transects across specific anomalies were saved to the hard drive of the DF unit for post-processing and figure generation.

Pyramid's classifications of USTs for the purposes of this report are based directly on the geophysical UST ratings provided by the NCDOT. These ratings are as follows:

Geophysical Surveys for Underground Storage Tanks
on NCDOT Projects

High Confidence	Intermediate Confidence	Low Confidence	No Confidence
Known UST Active tank - spatial location, orientation, and approximate depth determined by geophysics.	**Probable UST** Sufficient geophysical data from both magnetic and radar surveys that is characteristic of a tank. Interpretation may be supported by physical evidence such as fill/vent pipe, metal cover plate, asphalt/concrete patch, etc.	**Possible UST** Sufficient geophysical data from either magnetic or radar surveys that is characteristic of a tank. Additional data is not sufficient enough to confirm or deny the presence of a UST.	Anomaly noted but not characteristic of a UST. Should be noted in the text and may be called out in the figures at the geophysicist's discretion.

DISCUSSION OF RESULTS

Discussion of EM Results

A contour plot of the EM61 results obtained across the survey area at the property is presented in **Figure 2**. Each EM anomaly is numbered for reference in the figure. The

following table presents the list of EM anomalies and the cause of the metallic response, if known:

LIST OF METALLIC ANOMALIES IDENTIFIED BY EM SURVEY

Metallic Anomaly #	Cause of Anomaly	Investigated with GPR
1	Sign	
2	Water and Gas Utilities	☑
3	Reinforced Concrete	☑
4	Guy Wires	
5	Telephone Pole and Signs	
6	Telephone Pole and Utility Box	
7	Drop Inlet	
8	Reinforced Concrete	☑
9	Suspected Utility	☑
10	Reinforced Concrete	☑
11	Known UST	☑
12	Storm Sewer	
13	Sign, Bollards, and Sewer Cover	
14	Reinforced Concrete	☑
15	Telephone Pole	

A large portion of the survey area contained metal-reinforced concrete that resulted in widespread metallic interference during the EM survey. For this reason, a formal grid of GPR scans was performed across the survey area to investigate beneath the reinforcement for structures such as USTs. In addition to the anomalies associated with the metal reinforcement, cultural features such as signs, utilities, guy wires, and storm sewer structures resulted in isolated EM features. Lastly, a bed containing known USTs was located on the south portion of the property, directly west of the survey area. These tanks also resulted in an EM anomaly adjacent to the tank bed.

Discussion of GPR Results

Figure 3 presents the locations of the formal GPR transects performed at the property, as well as select transect images. A total of 32 GPR transects were performed at the site across the areas containing reinforced concrete. The GPR survey verified the presence of reinforcement in all of the interpreted locations. None of the GPR scans recorded evidence of structures underlying the reinforcement that would be indicative of USTs, with the exception of the known USTs located west of the south portion of the survey area.

Collectively, the geophysical data did not show any evidence of unknown metallic USTs at Parcel 072.

SUMMARY & CONCLUSIONS

Pyramid's evaluation of the EM61 and GPR data collected at Parcel 072 in Fayetteville, Cumberland County, North Carolina, provides the following summary and conclusions:

- The EM61 and GPR surveys provided reliable results for the detection of metallic USTs within the accessible portions of the geophysical survey area.
- An existing tank bed containing known USTs was present on the south side of the property, directly west of the survey area.
- A significant portion of the site contained metal-reinforced concrete, resulting in widespread interference in the EM survey.
- All EM anomalies not caused by the metal reinforcement were directly attributed to cultural features such as signs, utilities, guy wires, and storm sewer structures.
- A formal grid of GPR scans was performed across the areas containing reinforced concrete to investigate below the reinforcement for USTs. No evidence of larger structures such as tanks was observed.
- Collectively, the geophysical data did not show any evidence of unknown metallic USTs at Parcel 072.

LIMITATIONS

Geophysical surveys have been performed and this report was prepared for Solutions, IES in accordance with generally accepted guidelines for EM61 and GPR surveys. It is generally recognized that the results of the EM61 and GPR surveys are non-unique and may not represent actual subsurface conditions. The EM61 and GPR results obtained for this project have not conclusively determined the definitive presence or absence of metallic USTs, but the evidence collected is sufficient to result in the conclusions made in this report. Additionally, it should be understood that areas containing extensive vegetation, reinforced concrete, or other restrictions to the accessibility of the geophysical instruments could not be fully investigated.

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APPROXIMATE BOUNDARIES OF GEOPHYSICAL SURVEY AREA

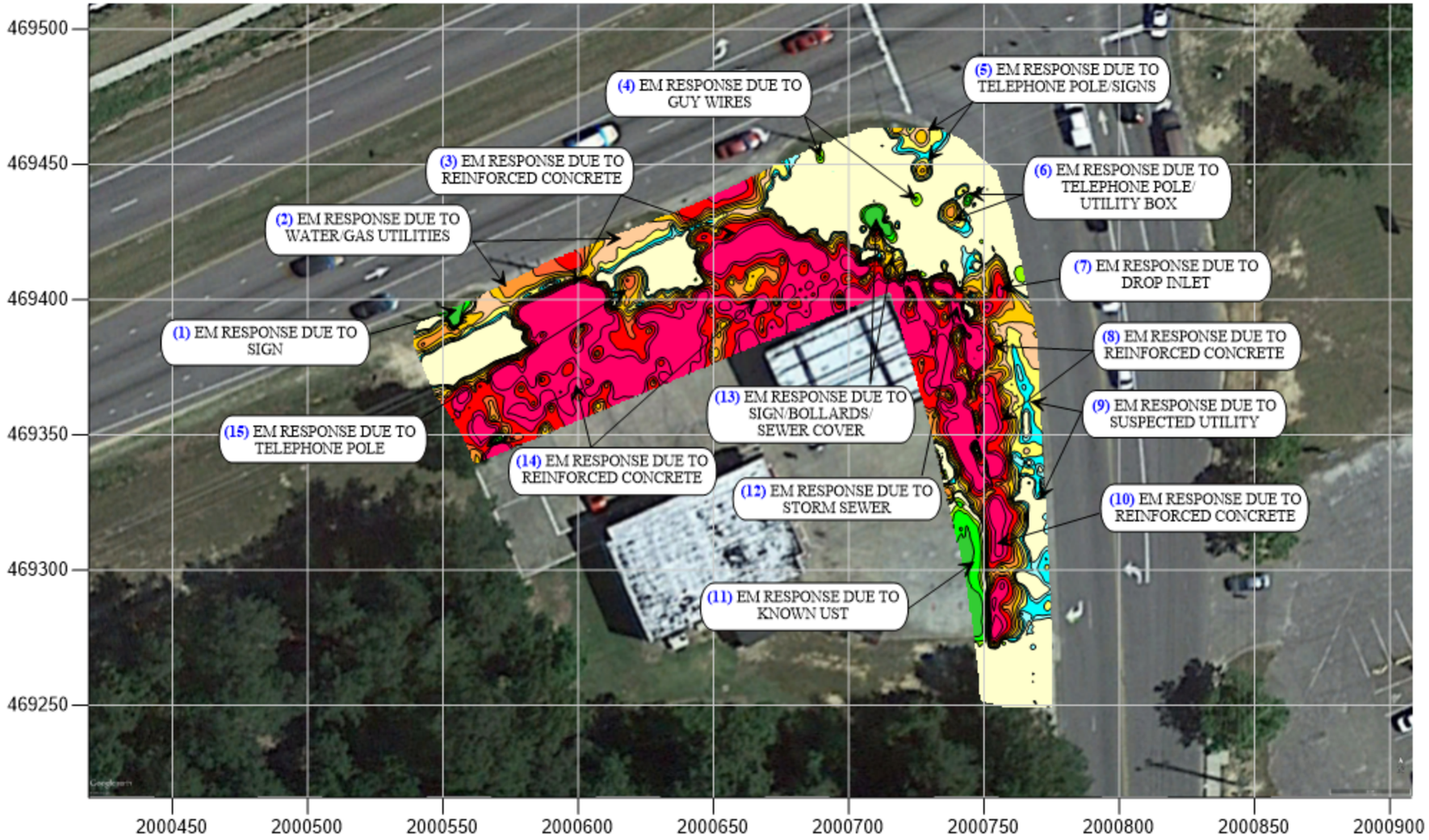
View of Survey Area
(Facing Approximately East)

View of Southeast Survey Area
(Facing Approximately South)

TITLE	PARCEL 072 - GEOPHYSICAL SURVEY BOUNDARIES AND SITE PHOTOGRAPHS
PROJECT	6605 RAEFORD ROAD FAYETTEVILLE, NORTH CAROLINA NCDOT PROJECT U-4405
Pyramid Geophysics	503 INDUSTRIAL AVENUE GREENSBORO, NC 27460 (336) 335-3174 (p) (336) 691-0648 (f) License # C1251 Eng. / License # C257 Geology
DATE 10/31/16	CLIENT SOLUTIONS, IES
PYRAMID PROJECT #: 2016-265	**FIGURE 1**

N↑

EM61 METAL DETECTION RESULTS



NC STATE PLANE, NORTHING (NAD83, FEET)

NC STATE PLANE, EASTING (NAD83, FEET)

NUMBERS IN BLUE (x) CORRESPOND TO ANOMALY TABLE INCLUDED IN THE REPORT

NO EVIDENCE OF UNKNOWN METALLIC USTs OBSERVED

The contour plot shows the differential results of the EM61 instrument in millivolts (mV). The differential results focus on larger metallic objects such as USTs and drums. The EM61 data were collected on October 12, 2016, using a Geonics EM61 instrument. Verification GPR data were collected using a GSSI UtilityScan DF instrument on October 17, 2016.

EM61 Metal Detection Response (millivolts)

TITLE	PARCEL 072 - EM61 RESULTS CONTOUR MAP
PROJECT	6605 RAEFORD ROAD FAYETTEVILLE, NORTH CAROLINA NCDOT PROJECT U-4405

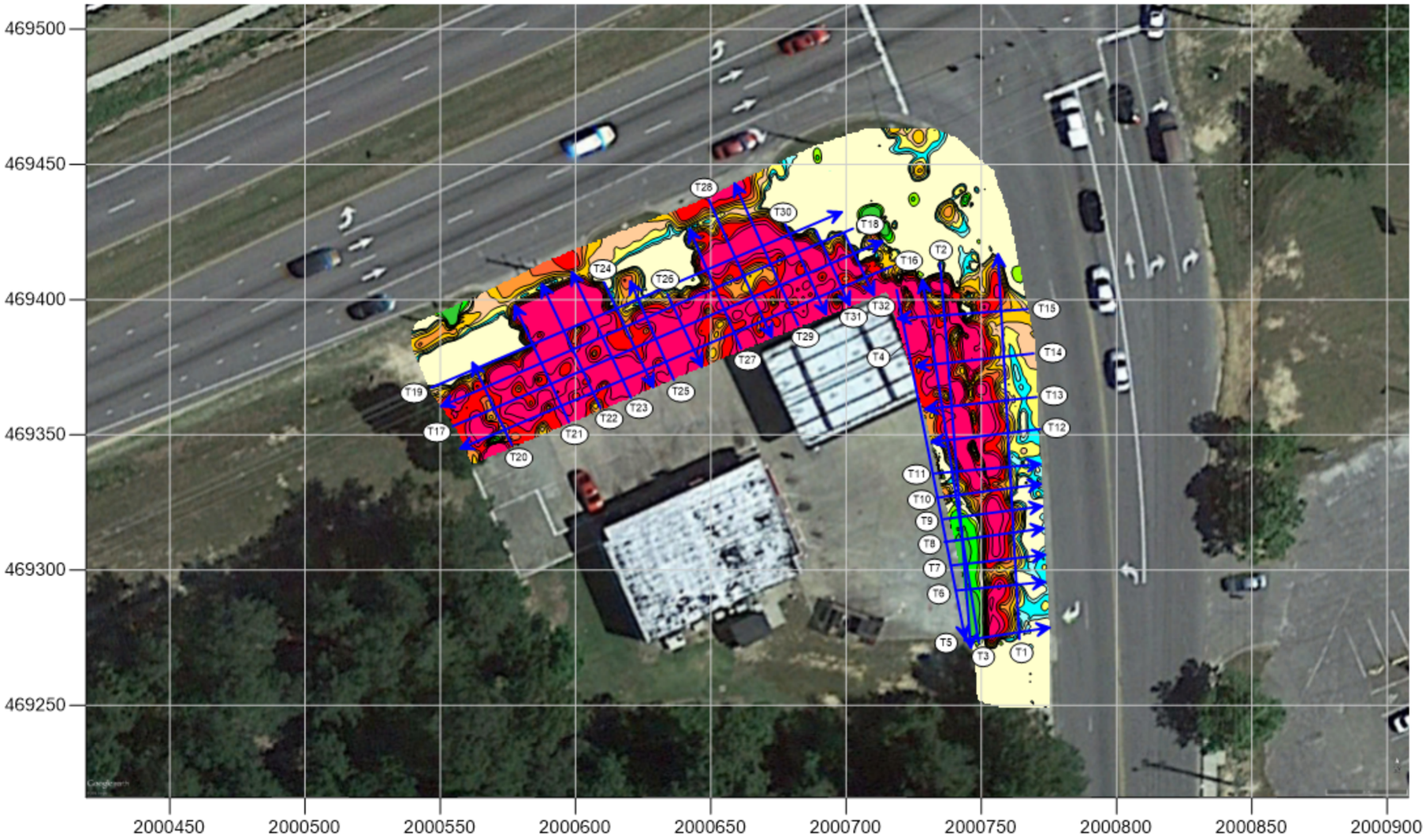
Pyramid Geophysics

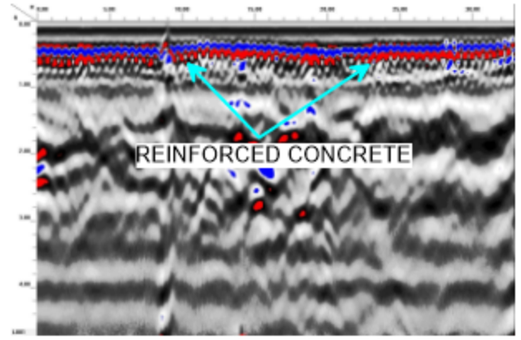
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27460
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

DATE	10/31/2016	CLIENT	SOLUTIONS, IES
PYRAMID PROJECT #:	2016-265		**FIGURE 2**

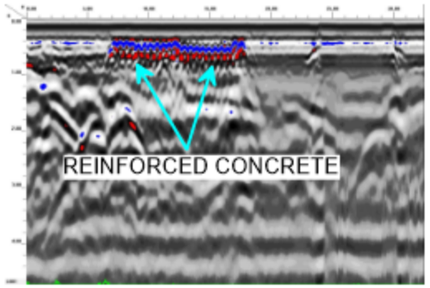
N↑

LOCATIONS OF GPR TRANSECTS

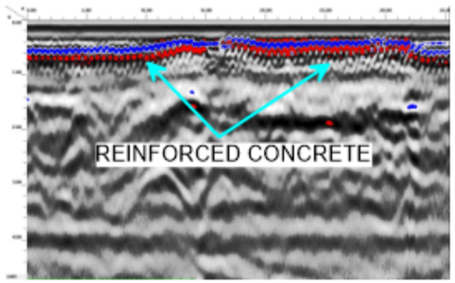




GPR TRANSECT 20 (T20)



GPR TRANSECT 5 (T5)



GPR TRANSECT 14 (T14)

TITLE
PARCEL 072 - GPR TRANSECT LOCATIONS AND SELECT IMAGES

PROJECT
6605 RAEFORD ROAD
FAYETTEVILLE, NORTH CAROLINA
NCDOT PROJECT U-4405

Pyramid Geophysics
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27460
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

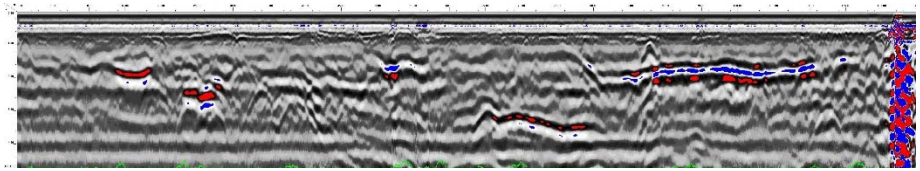
DATE 10/31/2016

CLIENT SOLUTIONS, IES

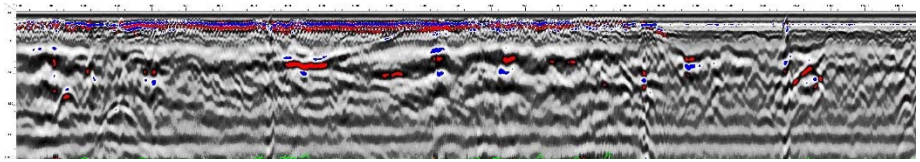
PYRAMID PROJECT #: 2016-265

FIGURE 3

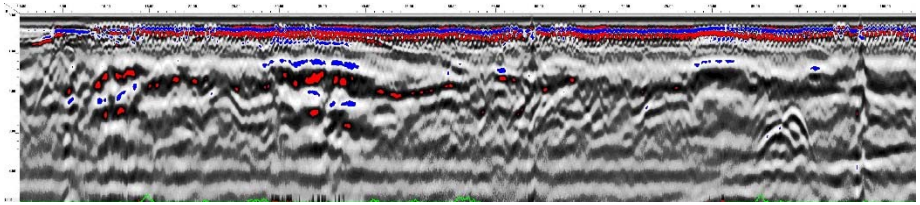
Appendix A – GPR Transect Images



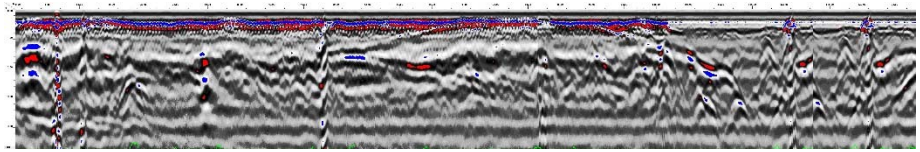
GPR TRANSECT 1



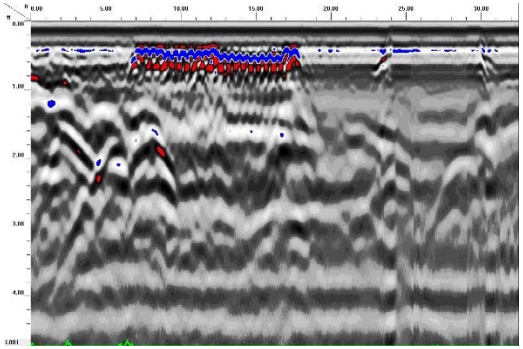
GPR TRANSECT 2



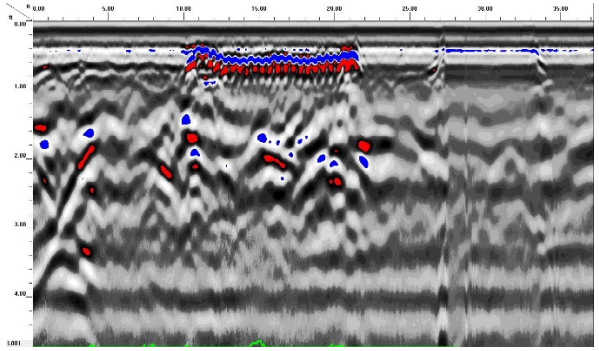
GPR TRANSECT 3



GPR TRANSECT 4



GPR TRANSECT 5



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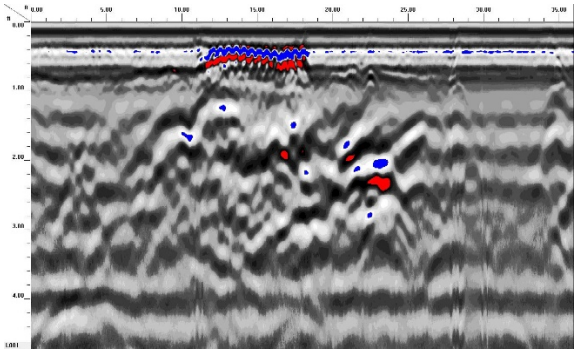
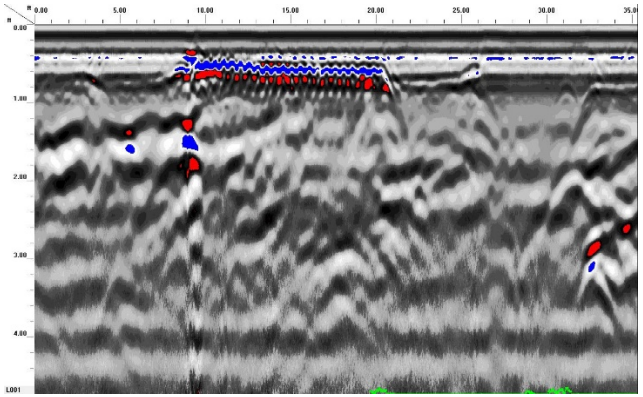
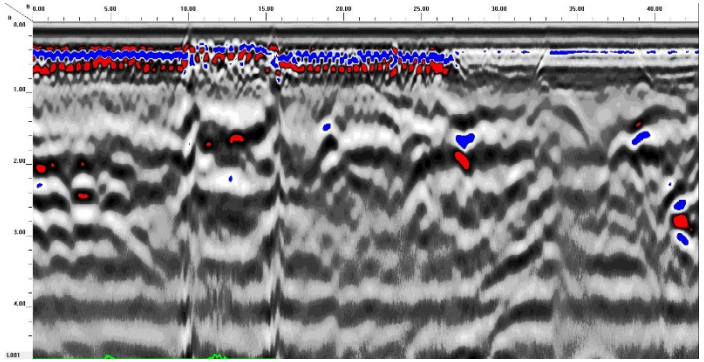


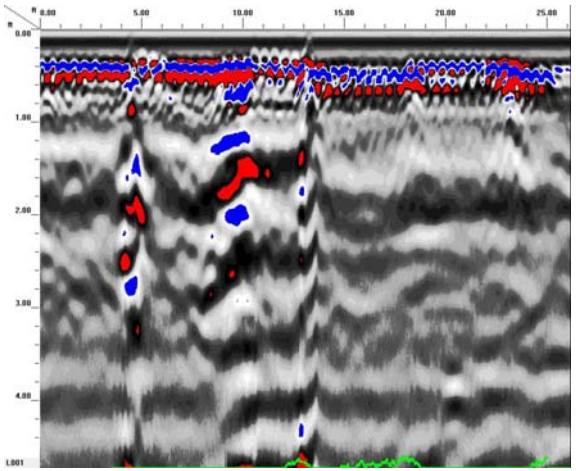
GPR TRANSECT 7



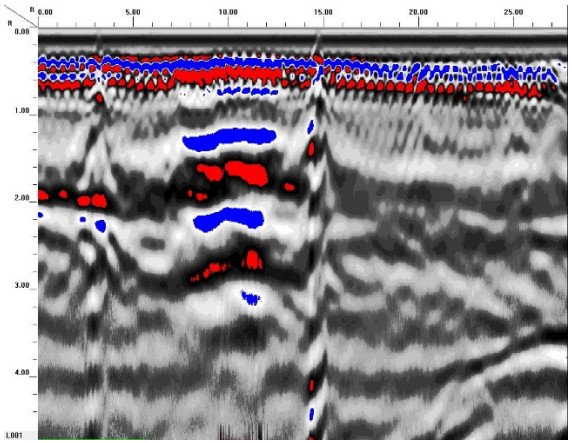
GPR TRANSECT 8



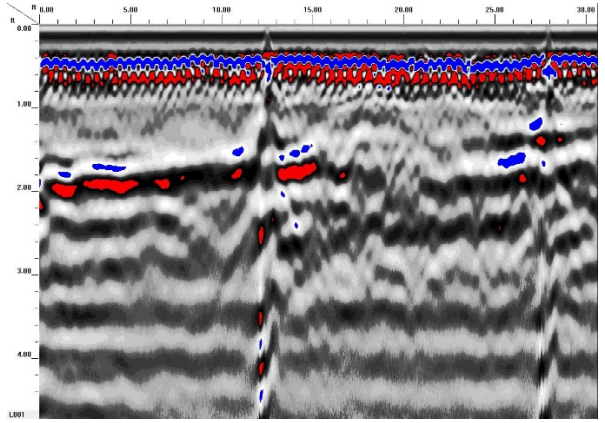
GPR TRANSECT 9



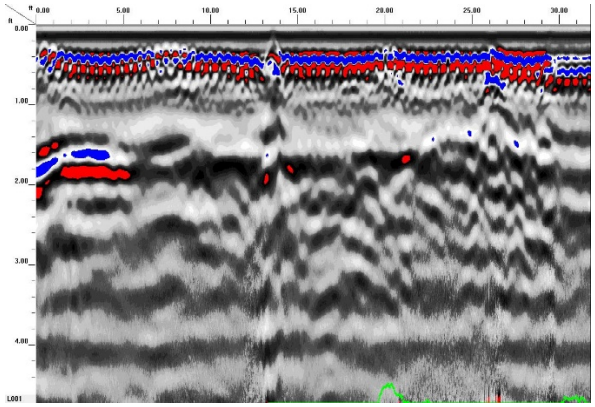
GPR TRANSECT 10



GPR TRANSECT 11



GPR TRANSECT 12



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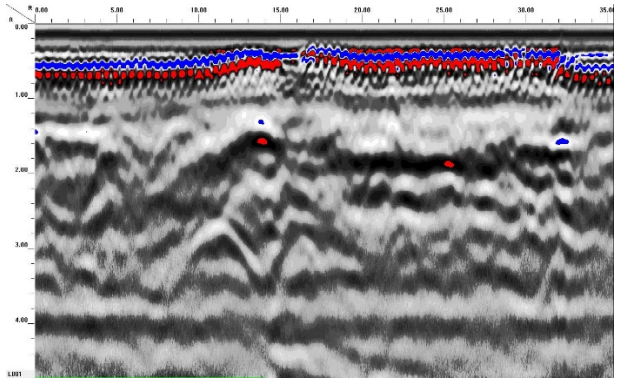

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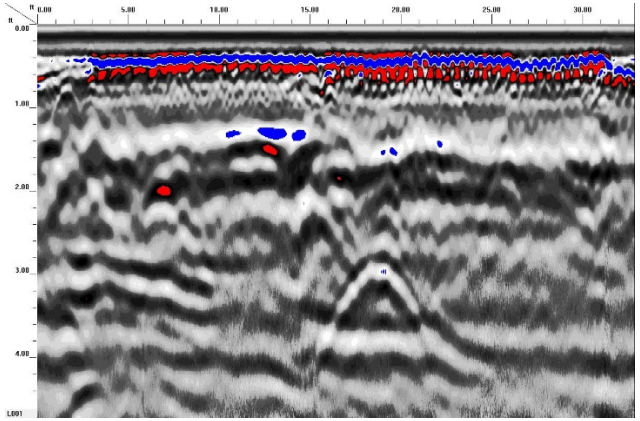
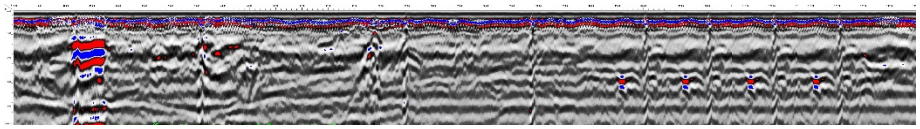


GPR TRANSECT 15



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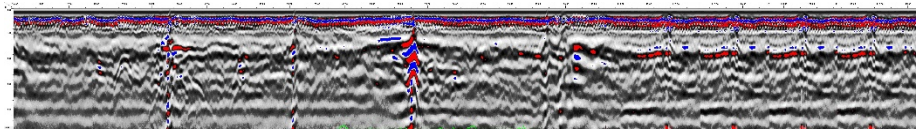

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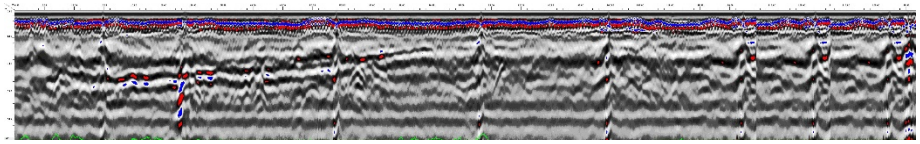

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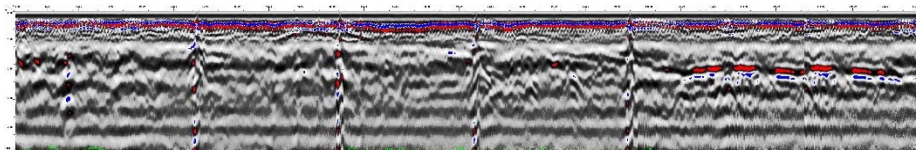

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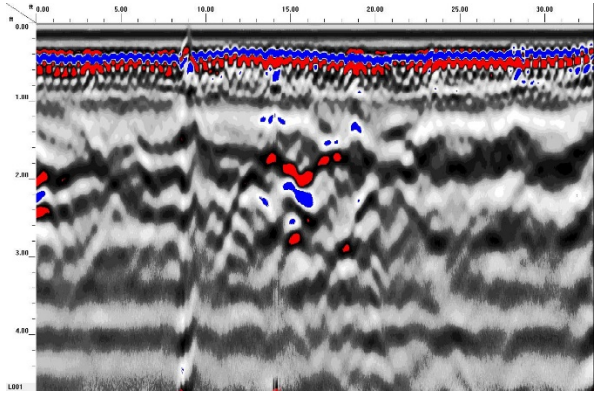

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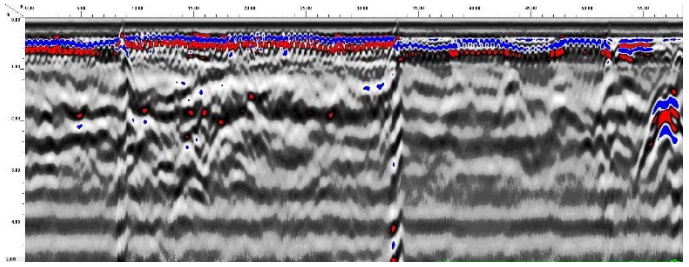

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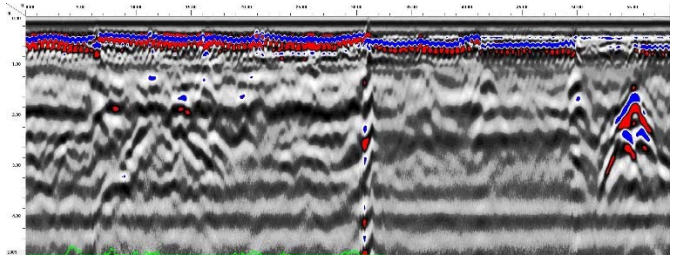

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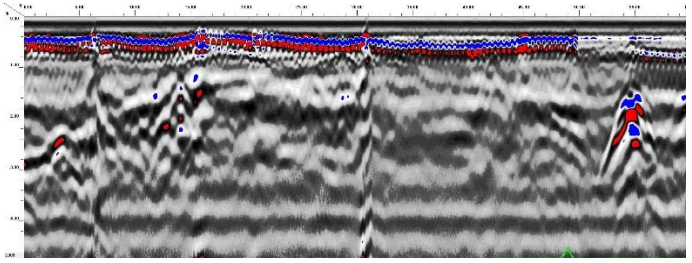

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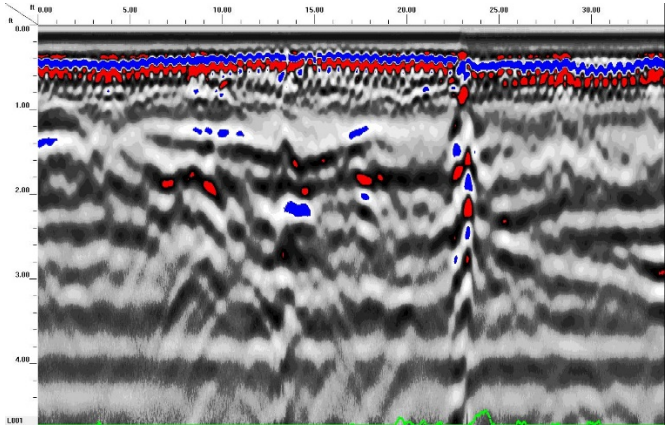

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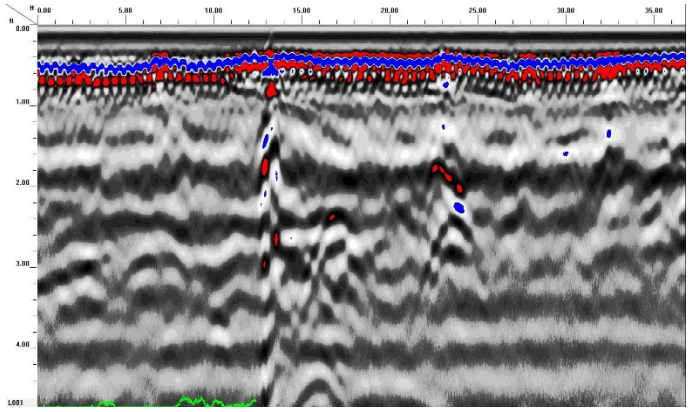

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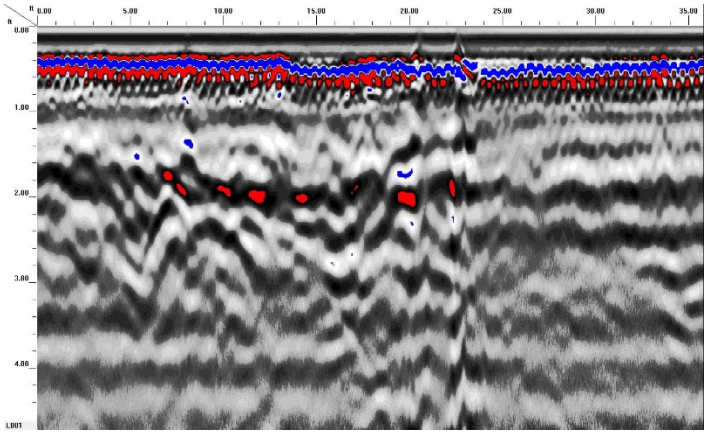

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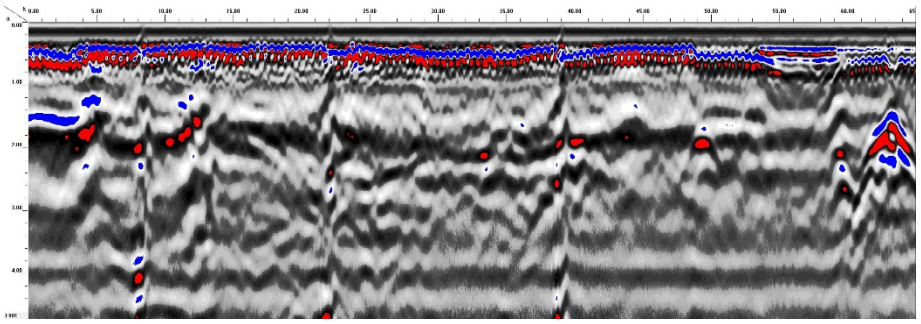

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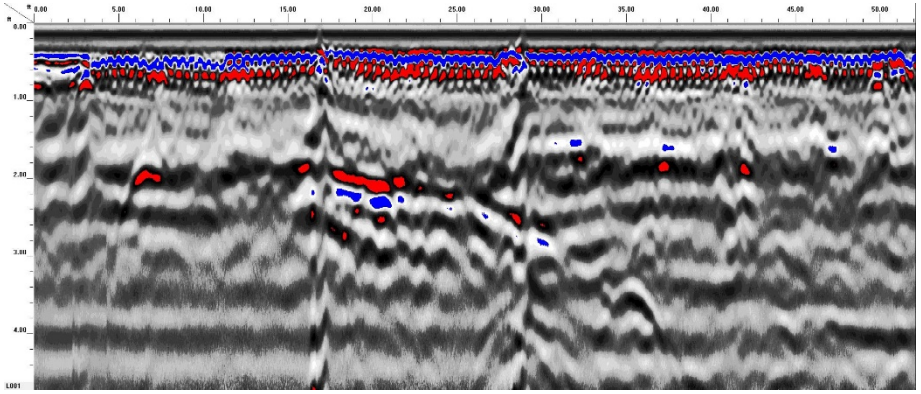

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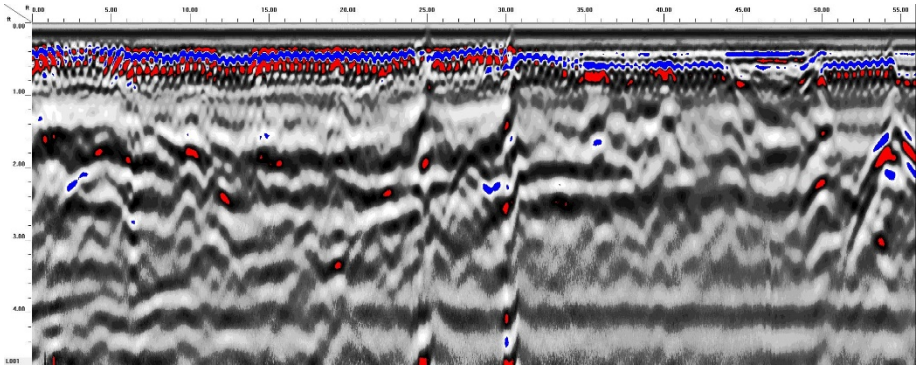

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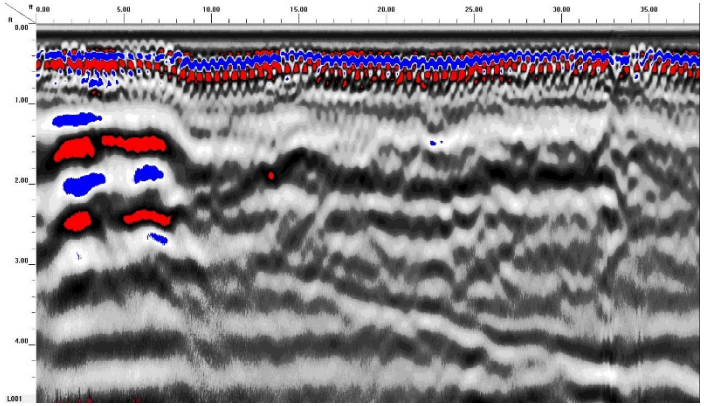

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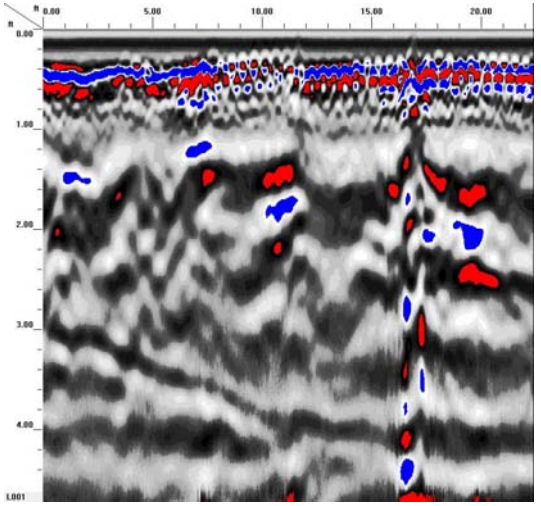

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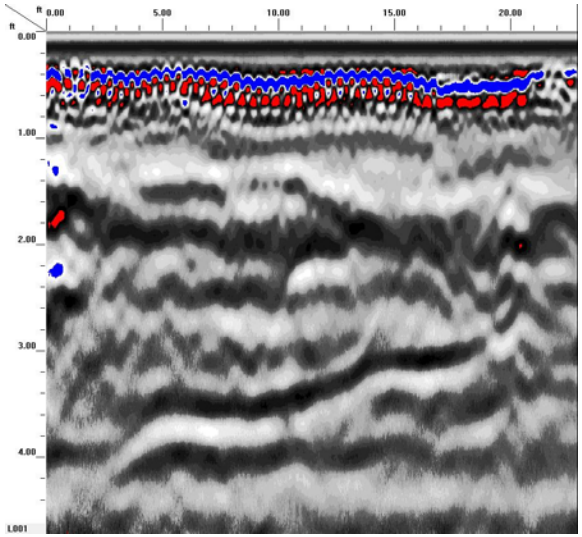


GPR TRANSECT 31

ATTACHMENT C

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-1

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 10 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0–2		93%	3.9	Light brown and red mottled clayey fine sand. Dry.	0–2
2–4			2.1		2–4
4–6		100%	3.5	Light brown and red mottled fine sandy clay. Dry.	4–6
6–8			2.8		6–8
8–10	72-SB-1-8-10	100%	4.3		8–10

End of Boring

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-2

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 10 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0				Concrete.	0
1		100%	3.3	Light brown and red mottled clayey fine sand. Dry.	1
2			1.4		2
3					3
4		100%	0.9		4
5				Light brown and red mottled fine sandy clay. Dry.	5
6			0.6		6
7					7
8	72-SB-2-8-10	100%	1.6		8
9					9
10					10

End of Boring

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-3

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 10 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0–2		100%	0.2	Light brown and red mottled clayey fine sand. Dry.	0–2
2–4		100%	2.9	Light brown and red mottled fine sandy clay. Dry.	2–4
4–6		100%	0.2	Light brown and red mottled fine sandy clay. Dry.	4–6
6–8		100%	0.3	Light brown and red mottled fine sandy clay. Dry.	6–8
8–10	72-SB-3-8-10	100%	0.3	Light brown and red mottled fine sandy clay. Dry.	8–10

End of Boring

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-4

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 10 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0–2		100%	0.0	Light brown and red mottled clayey fine sand. Dry.	0–2
2–4			0.0	Light brown and red mottled fine sandy clay. Dry.	2–4
4–6		100%	0.4		4–6
6–8			0.6		6–8
8–10	72-SB-4-8-10	100%	2.0		8–10

End of Boring

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-5

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 10 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0–2		100%	0.2	Light brown and red mottled clayey fine sand. Dry.	0–2
2–4		100%	0.1		2–4
4–6		100%	0.7	Light brown and red mottled fine sandy clay. Dry.	4–6
6–8		100%	0.4		6–8
8–10	72-SB-5-8-10	100%	0.4		8–10

End of Boring

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-6

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 10 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0–2		100%	0.4	Light brown and red mottled clayey fine sand. Dry.	0–2
2–4			0.5	Light brown and red mottled fine sandy clay. Dry.	2–4
4–6		100%	0.9	Light brown and red mottled fine sandy clay. Dry.	4–6
6–8			0.3	Light brown and red mottled fine sandy clay. Dry.	6–8
8–10	72-SB-6-8-10	100%	1.2	Light brown and red mottled fine silty clay. Dry.	8–10

End of Boring

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-7

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 12 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS
0				Concrete.
1		100%	0.6	Light brown and red mottled clayey fine sand. Dry.
2				
3			0.2	Light brown and red mottled fine sandy clay. Dry.
4				
5	72-SB-7-4-6	100%	18.3	Light brown and red mottled fine sandy clay. Some black staining with slight hydrocarbon odor present. Dry.
6				
7	72-SB-7-6-8		6.5	
8				
9	72-SB-7-8-10	100%	2.2	Light brown and red mottled silty clay. Dry.
10				
11			NA	Light brown and red mottled silty clay. Wet.
12				

End of Boring

Notes: 1) NA - Not available, PID reading not collected.

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-8

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 10 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0–2		100%	0.8	Light brown and red mottled clayey fine sand. Dry.	0–2
2–4			0.2		2–4
4–6		100%	0.1	Light brown and red mottled fine sandy clay. Dry.	4–6
6–8			0.2		6–8
8–10	72-SB-8-8-10	100%	12.7	Light brown and red mottled silty clay. Dry.	8–10

End of Boring

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-9

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 12 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0				Concrete.	0
1		95%	0.2	Light brown and red mottled clayey fine sand. Dry.	1
2					2
3			0.0	Light brown and red mottled fine sandy clay. Dry.	3
4					4
5		100%	0.3		5
6					6
7			1.4	Light brown and red mottled silty clay. Dry.	7
8	72-SB-9-8-10				8
9			15.5		9
10		100%			10
11			NA	Light brown and red mottled silty clay. Wet.	11
12					12

End of Boring

Notes: 1) NA - Not available, PID reading not collected.

Solutions-IES
Industrial & Environmental Services

Log of Boring 72-SB-10

BORING LOCATION: Parcel #72, Fayetteville, NC	PROJECT NUMBER: 2016.0054.NDOT
DRILLING CONTRACTOR: Regional Probing Services	DATE STARTED: 10/24/2016 — DATE FINISHED: 10/24/2016
DRILLING METHOD: Direct Push — BOREHOLE DIAMETER: 2.25"	TOTAL DEPTH (ft bgs): 12 ft bgs — SCREEN INTERVAL (ft bgs): NA
DRILLING EQUIPMENT: Geoprobe 5410	NORTHING: NA — EASTING: NA
SAMPLING METHOD: Macro Core	INITIAL DTW: NA — FINAL DTW: NA
LOGGED BY: Samuel McIntyre — CHECKED BY:	

DEPTH (ft bgs)	SAMPLES: Sample ID and Interval	SAMPLES: Recovery	PID (ppm)	DESCRIPTION OF MATERIALS	DEPTH (ft bgs)
0–1		100%	0.0	Light brown and red mottled clayey fine sand. Dry.	0–1
1–3			0.0	Light brown and red mottled fine sandy clay. Dry.	1–3
3–5		100%	0.2	Light brown and red mottled silty clay. Dry.	3–5
5–8			16.6		5–8
8–10	72-SB-10-8-10	100%	20.7		8–10
10–12			NA	Light brown and red mottled silty clay. Wet.	10–12

End of Boring

Notes: 1) NA - Not available, PID reading not collected.

ATTACHMENT D

PHOTO 1- VIEW OF SOIL BORING LOOKING NORTHWEST

PHOTO 2 - VIEW OF SOIL BORING LOOKING NORTH

PHOTO 3 - VIEW OF SOIL BORING LOOKING NORTHWEST

PHOTO 4 - VIEW OF SOIL BORING LOOKING NORTHEAST

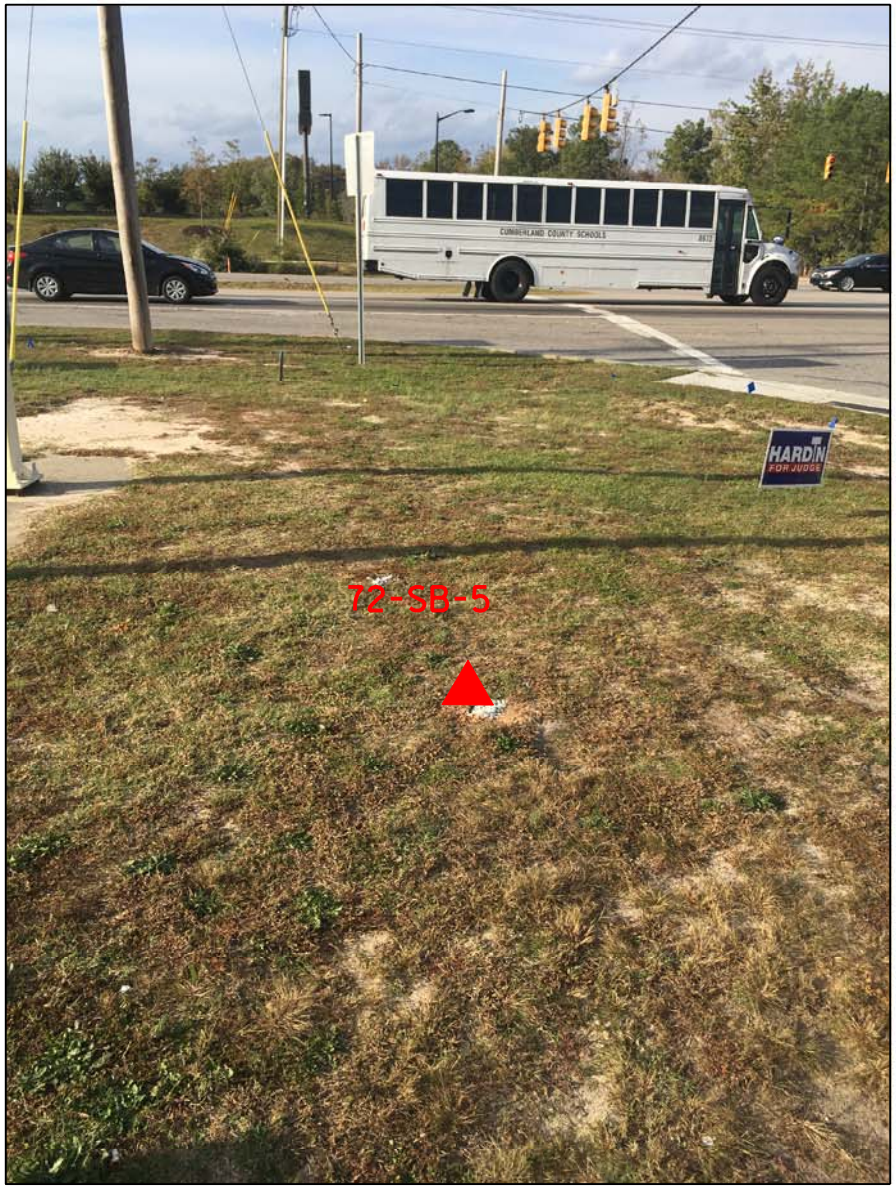


PHOTO 5 - VIEW OF SOIL BORING LOOKING NORTHEAST

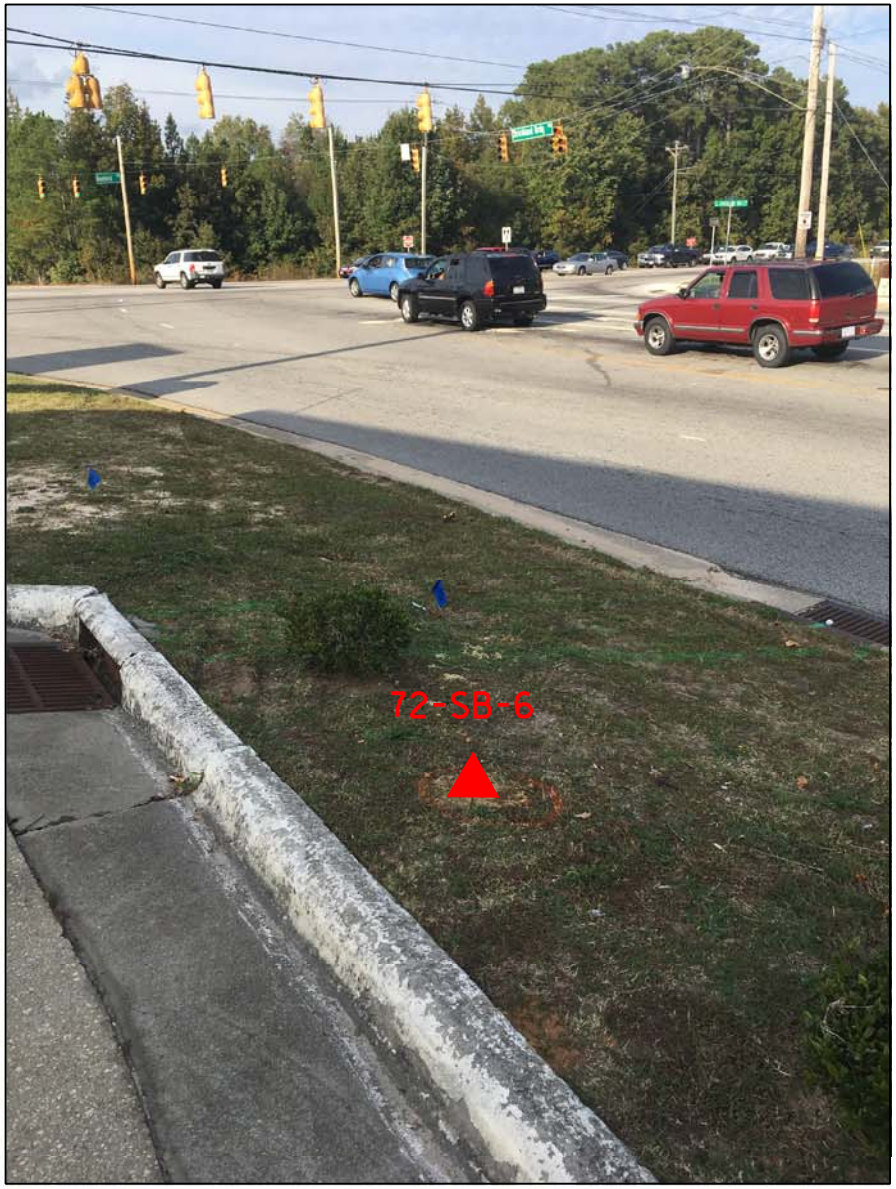


PHOTO 6 - VIEW OF SOIL BORING LOOKING NORTH

PHOTO 7 - VIEW OF SOIL BORING LOOKING EAST

PHOTO 8 - VIEW OF SOIL BORING LOOKING EAST

PHOTO 8 - VIEW OF SOIL BORING LOOKING SOUTHEAST

ATTACHMENT E

QED

REDLAB
RAPID ENVIRONMENTAL DIAGNOSTICS

QROS

Hydrocarbon Analysis Results

Client: NCDOT
Address: Parcel 72: 6605 Raeford Rd
Fayetteville, NC

Samples taken 10/25/2016
Samples extracted 10/25/2016
Samples analysed 10/25/2016

Contact:

Operator Candy Elliott

Project: 2016.0054.NDOT

U04049

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	Ratios			HC Fingerprint Match
										% light	% mid	% heavy	
s	72-SB-1-8-10	7.7	<0.19	<0.19	0.19	0.19	0.14	0.02	<0.001	0	100	0	PHC not detected (FCM)
s	72-SB-2-8-10	8.2	<0.2	<0.2	<0.2	<0.2	<0.04	<0.007	<0.001	0	0	0	PHC not detected
s	72-SB-3-8-10	6.7	<0.17	<0.17	2	2	1	0.04	<0.001	0	100	0	Transformer oil (FCM) 91.4%
s	72-SB-4-8-10	9.4	<0.24	<0.24	0.24	0.24	0.22	0.03	<0.001	0	93.6	6.4	Residual.PHC (FCM)
s	72-SB-5-8-10	6.3	<0.31	<0.16	<0.16	<0.16	<0.03	<0.005	<0.001	0	19.1	80.9	Residual.PHC
s	72-SB-6-8-10	7.1	<0.18	<0.18	<0.18	<0.18	<0.04	<0.006	<0.001	0	21	79	Residual.PHC
s	72-SB-7-4-6	5.6	<0.14	<0.14	0.54	0.54	0.5	0.02	<0.001	0	91.8	8.2	Deg.PHC (FCM) 89.9%
s	72-SB-7-6-8	22.5	<0.56	<0.56	0.56	0.56	0.35	<0.02	<0.002	0	38.9	61.1	Residual.PHC (FCM) (P) (BO) 56.8%
s	72-SB-7-8-10	23.2	<0.58	5.5	<0.58	5.5	<0.12	<0.02	<0.002	98.2	0	1.8	Deg Gas (FCM) (P) (BO) 19.2%
s	72-SB-8-8-10	7.5	<0.19	<0.19	<0.19	<0.19	<0.04	<0.006	<0.001	0	0	100	Residual.PHC (P)
s	72-SB-9-8-10	6.7	<0.17	<0.17	0.17	0.17	0.13	0.02	<0.001	0	100	0	PHC not detected (FCM)
s	72-SB-10-6-8	8.2	<0.2	<0.2	<0.2	<0.2	<0.04	<0.007	<0.001	0	100	0	PHC not detected
s	72-SB-10-8-10	6.3	<0.16	<0.16	2.1	2.1	0.98	0.04	<0.001	0	96.4	3.6	Deg.Diesel (FCM) 72.1%
	Initial Calibrator QC check			OK									

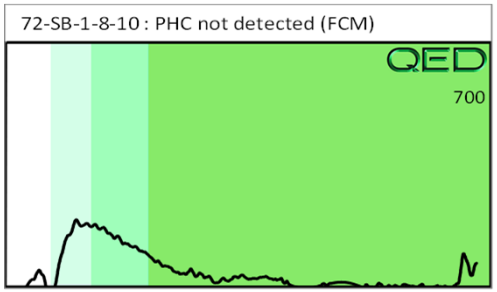
Results generated by a QED HC-1 analyser. Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values are not corrected for moisture or stone content

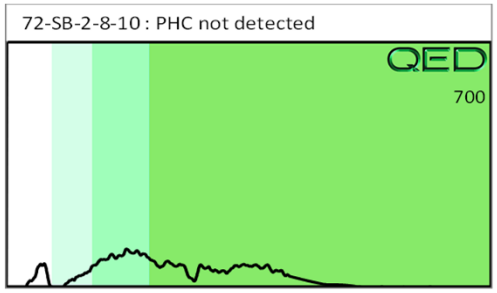
Fingerprints provide a tentative hydrocarbon identification. The abbreviations are:- FCM = Results calculated using Fundamental Calibration Mode : % = confidence for sample fingerprint match to library

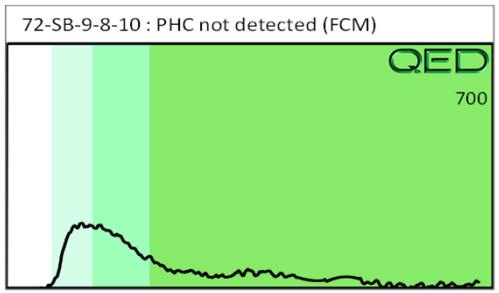
(SBS) or (LBS) = Site Specific or Library Background Subtraction applied to result : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate present

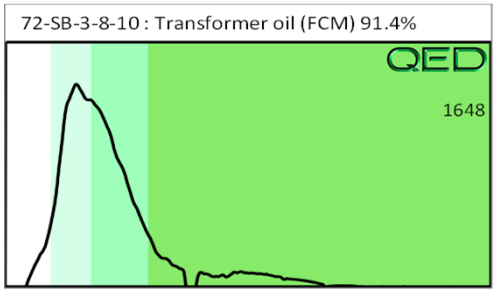
QED Hydrocarbon Fingerprints

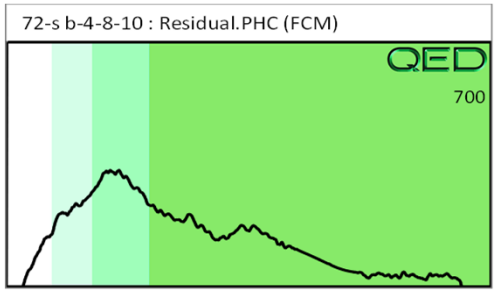
Project: 2016.0054.NDOT 10/25/2016

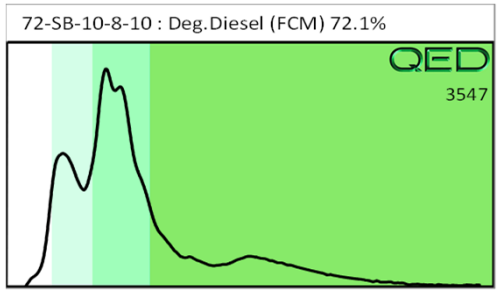


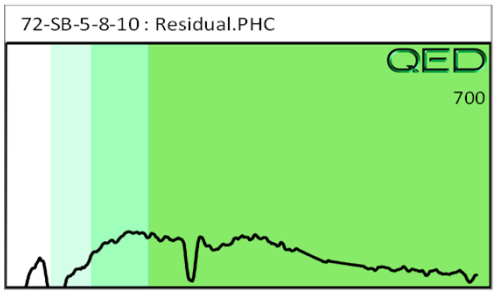


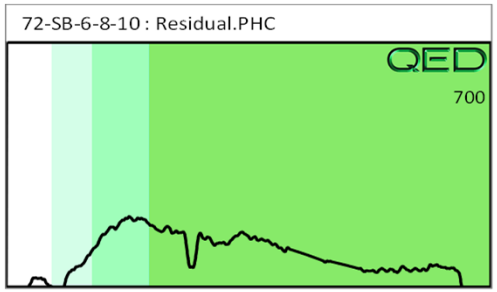


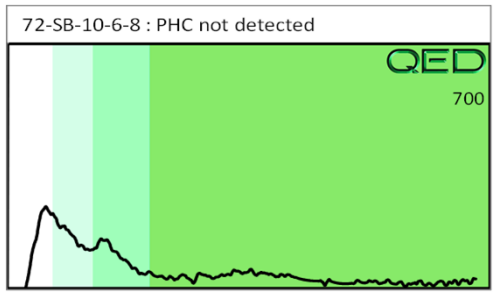


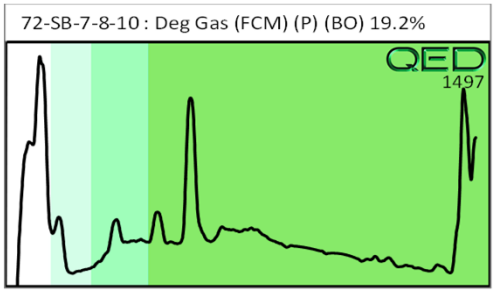


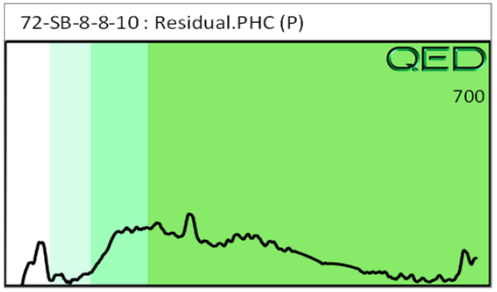


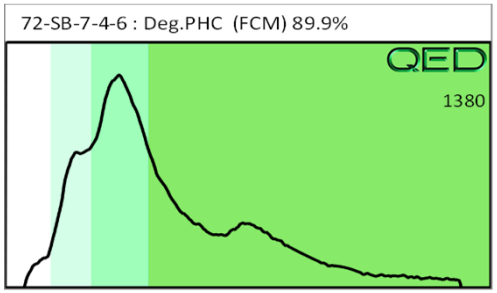


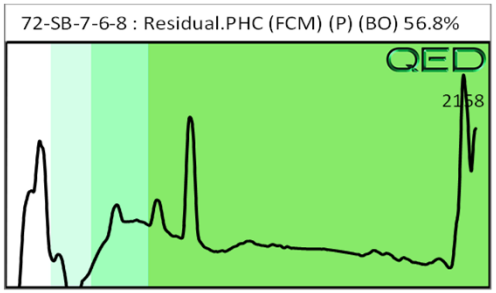





72-SB-7-8-10 : Deg Gas (FCM) (P) (BO) 19.2%
QED
1497


72-SB-8-8-10 : Residual.PHC (P)
QED
700


72-SB-7-4-6 : Deg.PHC (FCM) 89.9%
QED
1380


72-SB-7-6-8 : Residual.PHC (FCM) (P) (BO) 56.8%
QED
2158

File Review Reports
6157 Crystal Drive LLC Property (Parcel #72)
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina
State Project: U-4405
WBS Element 39049.1.1

SEI
Engineering & Geological Services, P.C.

JUL 11 2001

Limited Site Assessment Report

Site Location:
The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County

Site Owner:
The Pantry, Inc.
P. O. Box 1410
Sanford, North Carolina 27330

Prepared for:

The Pantry, Inc.
P. O. Box 1410
Sanford, North Carolina 27330
(919) 774-6700

Project Number: 501403
Facility ID Number: 0-023655
Incident Number: ~~Pending~~ 23062
Site Priority Ranking: ~~Pending~~ ~~[illegible]~~ High

General Site Information:
Surrounding Land Use – Commercial/Residential/Undeveloped
Latitude/Longitude – N 35° 2' 24" / W 78° 59' 50"
Release Date – March 21, 2001
Estimated Quantity – Unknown
Cause of Release – Underground storage tank system
UST Information – (3) 10,000-gallon gasoline

Prepared by:

NORTH CAROLINA LICENSED SEAL 1736 GEOLOGIST GRETCHEN L. MILLER

Gretchen L. Miller, P.G.
NC Licensed Geologist #1736
SEI Engineering and
Geological Services, P.C.
5100 I-85 Service Road, Suite 7A
Charlotte, North Carolina 28206

July 5, 2001

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LIMITATIONS

This report has been prepared under the guidance of a North Carolina Licensed Geologist to meet the requirements of the North Carolina Department of Environment and Natural Resources (NCDENR). The information and conclusions expressed in this report are based upon normal standards of the profession and limited to information available at this time. Chemical analyses of samples associated with this report were performed by a subcontracted, independent, and certified laboratory. All data and parameters have been reviewed for accuracy and, excepting obvious errors, have been accepted as correct. SEI Engineering and Geological Services, P.C. reserves the right to revise estimates of performance as required by changes in the data supplied by Environmental Conservation Laboratories.

1.0 INTRODUCTION AND SITE HISTORY

The Pantry #486 is a retail gasoline and convenience store located at 6605 Raeford Road in Fayetteville, Cumberland County, North Carolina. Figure 1 is an excerpt from a United States Geological Survey (USGS) 7.5 minute topographical quadrangle map showing the location of the site, as well as cultural and topographic features. The site is currently active and contains three 10,000-gallon underground storage tanks (USTs). Figure 2 is a site map showing the site features and the UST locations.

The January 2001 statistical inventory reconciliation (SIR) data for this site showed a "fail" for the 10,000-gallon premium gasoline UST. When The Pantry, Inc. received the SIR report in February 2001, they immediately ordered a tank tightness test. The February 26, 2001, tightness test on the premium UST indicated a "pass." The February 2001 SIR data, which was reported in March 2001, indicated an "inconclusive" result for the premium UST, due to the fact that it had been pumped out by The Pantry, Inc. On March 21, 2001, a release was discovered when store personnel found a hole in the bottom of the premium UST near the fill port.

On March 22, 2001, The Pantry, Inc. contracted SEI Environmental, Inc. to investigate the release. This included installing three 4-inch diameter recovery wells and recovering free product via aggressive fluid vapor recovery (AFVR). The four AFVR events were successful in removing approximately 561 gallons of free product, 9,543 gallons of contaminated groundwater, and 786.91 pounds of petroleum vapors. A 20 Day and Free Product Report for the AFVR events was submitted to the NCDENR Division of Waste Management, UST Section on May 2, 2001.

SEI Environmental, Inc. initiated a Phase I Limited Site Assessment (LSA), which included the installation of one type II groundwater monitoring well (MW-1). Due to the fact that free product was observed in the well, SEI Environmental, Inc. did not collect a groundwater sample and went immediately to a Phase II LSA. The Phase II LSA included the installation of three type II groundwater monitoring wells (MW-2 through MW-4), and one type III groundwater monitoring well (MW-5). This report summarizes results from the installation and sampling of four type II

groundwater monitoring wells (MW-1 through MW-4) and one type III monitoring well (MW-5) on March 22 and 23, 2001, and April 26, 27, and 30, 2001.

2.0 RECEPTOR INFORMATION AND RISK CHARACTERIZATION

A completed Limited Site Assessment Risk Classification and Land Use Form is included in Appendix A. The major points of the form are summarized below.

The subject property is currently active, and is zoned planned commercial. The properties to the west, south and east are also zoned planned commercial. US Highway 401 borders the property to the north. The undeveloped property north of US Highway 401 is zoned planned commercial. Properties further to the south, southwest, and southeast of the site are zoned residential.

The properties immediately adjacent to the subject property contain businesses, undeveloped land, and a highway. A table containing the names and addresses of surrounding property owners adjacent to the subject site is contained in Appendix B, along with a vicinity map showing the locations of the properties.

A 1,500-foot radius receptor survey was performed. Several potable wells were noted in the surrounding area, the closest of which is located approximately 350 feet south of the UST bed. The City of Fayetteville confirmed that public water is available to the site and to part of the surrounding area, although people are not required to connect to public water. The City of Fayetteville obtains its water from the Cape Fear River and Glenville Lake. Brookwood Water Corporation provides residential water supply service to several homes in the surrounding area. Brookwood Water Corporation obtains its water from water supply wells, the closest of which is located approximately 1,400 feet northeast of the site. The nearest surface water is a small stream located approximately 650 feet northeast of the site.

To date, there are no state recognized wellhead protection areas as defined in 42 USC 300h-7(e) within a 1,500 foot radius of the site. The site is located in the Coastal Plain Physiographic Province. According to the National Water Summary (1987), the site is located in the crystalline rock aquifer, which is semiconfined to confined. Subsurface structures with potential to contain explosive vapors were not located near the release area.

3.0 SITE GEOLOGY AND SOIL SAMPLING

The site is located within the sands of the Middendorf Formation of the Coastal Plain Physiographic Province. According to the Geologic Map of North Carolina (Brown, et al., 1985), the formation is characterized by sand, sandstone, and mudstone that is gray to pale gray with an orange cast. Clay balls and iron-cemented concretions are common. Bedding is laterally discontinuous, with cross-bedding common.

On March 22 and 23, 2001, three type II monitoring wells (MW-1 through MW-3) were advanced to the northeast and south of the gasoline USTs to a depth of 30 feet below land surface (bls). On April 26 and 27, 2001, one type II monitoring well (MW-4) was installed to a depth of 30 feet bls and one type III monitoring well (MW-5) was installed to a depth of 45.5 feet bls. Due to the presence of free product in the soil, soil samples were not collected. Free product was encountered in the soil at approximately sixteen feet bls in monitoring wells MW-1, MW-2, MW-4, and MW-5. Groundwater was encountered at approximately nineteen feet bls. The soil encountered while performing the soil borings was primarily a yellow-brown to tan-gray silty sand and gray-tan clayey sand. The soil boring locations are shown on Figure 2. Soil Boring Logs are included in Appendix C.

During drilling activities, suspected contaminated soil was placed into drums and left on site. Contaminant Control, Inc. removed 22 drums of soil on April 3 and May 15, 2001, and transported them to its facility in Hope Mills, North Carolina, for proper treatment and disposal. A copy of the non-hazardous material manifests for these drums is included in Appendix E.

4.0 MONITORING WELL CONSTRUCTION

On March 22, 2001, Phase I of the LSA was initiated with the installation of one type II monitoring well (MW-1) to a depth of 30 feet bls. The well was completed with ten feet of 2 inch Schedule 40 PVC casing and twenty feet of 0.010-inch slot PVC screen.

Due to the presence of free product, on March 23 and April 26, 2001, Phase II of the LSA was initiated with the installation of three type II monitoring wells (MW-2 through MW-4) to a depth of 30 feet bls. Monitoring wells MW-2 through MW-4 were completed with ten feet of 2 inch Schedule 40 PVC casing and twenty feet of 0.010-inch slot PVC screen. The locations of the monitoring wells are noted on Figure 2.

The annulus of each well was filled with a sand filter pack to two feet above the top of the screened interval. A four-foot thick bentonite seal was placed above the sand filter pack and hydrated with water. The remaining well bore was filled with grout to the surface. The wells were completed flush to grade with a locking cap, watertight seal, and a bolt-down manhole.

On April 26 and 27, 2001, SEI Environmental, Inc. installed one vertical extent type III groundwater monitoring well (MW-5) by setting a 6-inch PVC outer casing to a depth of 39 feet bls. The borehole annulus was filled with grout and allowed to harden over one night. The end plug of the outer casing was drilled out, extending the boring to a depth of 45.5 feet bls. The well was completed with four feet of 0.010-inch slot PVC screen and 41.5 feet of 2 inch threaded PVC well riser to the surface.

A sand filter pack was placed around the screen and extended to 1.5 feet above the screen. A three-foot thick bentonite seal was placed above the sand filter pack and hydrated with water. The remaining well bore was filled with grout to the surface. The well was completed with a locking cap, watertight seal, and bolt-down manhole. Soil Boring Logs and well construction details are included in Appendix C.

5.0 GROUNDWATER SAMPLING

Prior to sampling, each monitoring well was gauged with an electronic oil/water interface probe to measure depth to water and to detect any free product. Free product was detected in monitoring wells MW-1, MW-2, and MW-4 with respective thicknesses of 2.35 feet, 2.69 feet, and 1.37 feet. Groundwater monitoring wells MW-3 and MW-5 were sampled on April 30, 2001. The nearest water supply well (WW #1) was also sampled. Figure 4 is a groundwater elevation map from the April 30, 2001, sampling event showing the direction of groundwater flow at the site. The apparent groundwater flow is to the east. Monitoring well construction and groundwater elevation data are included in Table 2.

Monitoring wells MW-3 and MW-5 were purged prior to sampling by removing a minimum of three well volumes. A groundwater sample from each well was collected after the well was allowed to recover. Each sample was collected using a new, disposable Teflon® bailer and placed in laboratory supplied, cleaned containers. The samples were maintained at 4°C and submitted under proper chain-of-custody procedures to Environmental Conservation Laboratories in Cary, North Carolina, for analysis. The groundwater samples were analyzed by EPA methods 601, 602 (with IPE and MTBE), and 504.1 for EDB, MADEP method VPH, and standard method 3030c for lead. The water well sample (WW #1) was analyzed by EPA methods 601 and 602 extended to detect MTBE and IPE.

6.0 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were collected from monitoring wells MW-3 and MW-5 on April 30, 2001. The samples were analyzed by EPA methods 601, 602 (with IPE and MTBE), and 504.1 for EDB, MADEP method VPH, and standard method 3030c for lead. The water well sample (WW #1) was analyzed by EPA methods 601 and 602 extended to detect MTBE and IPE.

Petroleum hydrocarbons were detected in both groundwater monitoring wells MW-3 and MW-5 above the 15A NCAC 2L groundwater standards. Maximum concentrations of benzene (4,700 micrograms per liter (µg/L)), ethylbenzene (2,400 µg/L), toluene (24,000 µg/L), total xylenes (14,000 µg/L), MTBE (1,900 µg/L), aliphatics in the C5-C8 range (38,000 µg/L), aliphatics in the C9-C12 range (18,000 µg/L), and aromatics in the C9-C10 range (9,800 µg/L) were detected in MW-3. Benzene (1.2 µg/L) was the only petroleum hydrocarbon constituent detected at a concentration above the 15A NCAC 2L groundwater standards in monitoring well MW-5. Petroleum hydrocarbon constituents were not detected above detection limits for the sample collected from the water supply well, WW #1. The groundwater sample laboratory results are summarized in Table 1. A copy of the laboratory report and chain-of-custody form is included in Appendix D. Petroleum constituent concentration isopleths are presented as Figures 5 through 9 for illustrative purposes only.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The subject property is zoned planned commercial and potential future use indicates that it will remain at that zoning status. A 1,500-foot radius potable well search was performed, which revealed the presence of several potable wells in the surrounding area. The closest water supply well (WW-1) is located approximately 350 feet south of the site. The City of Fayetteville confirmed that public water is available to the site and to part of the surrounding area, although people are not required to connect to public water. The nearest surface water is a small stream located approximately 650 feet northeast of the site.

During the April 30, 2001, groundwater sampling event, free product was observed in three of the five monitoring wells located on site. Petroleum constituents were detected in the other two groundwater monitoring wells located at levels greater than the 15A NCAC 2L standards. Petroleum hydrocarbon constituents were not detected above laboratory detection limits for the sample collected from the water supply well, WW #1. Due to the presence of free product, soil samples were not collected from any of the borings.

Based on the information presented above and in the Limited Site Assessment Risk Classification and Land Use Form (Appendix A), the subject site should be ranked high risk. Since free product was observed in the soil samples and three of the five monitoring wells, and concentrations detected in the groundwater monitoring wells are above the 15A NCAC 2L Standards, SEI Engineering and Geological Services, P.C. recommends that a Comprehensive Site Assessment (CSA) be initiated for this release.

TABLE 1

Groundwater Analytical Results

The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County
Project Number: 501403

Sample Location	Date Sampled	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	IPE (µg/L)	Lead (mg/L)	EDB (µg/L)	C5-C8 Aliphatics (µg/kg)	C9-C12 Aliphatics (µg/kg)	C9-C10 Aromatics (µg/kg)
MW-1	04/30/01	Free Product Present										
MW-2	04/30/01	Free Product Present										
MW-3	04/30/01	**4,700**	**2,400**	**24,000**	**14,000**	**1,900**	BDL	BDL	BDL	**38,000**	**18,000**	**9,800**
MW-4	04/30/01	Free Product Present										
MW-5	04/30/01	**1.2**	1.1	5.8	32.9	78	3.7	BDL	BDL	260	49	54
2L Standards		**1**	**29**	**1,000**	**530**	**200**	**70**	**15**	**0.0004**	**420**	**4,200**	**210**
10 x 2L Standards		**10**	**290**	**10,000**	**5,300**	**2,000**	**700**	**150**	**0.004**	**4,200**	**42,000**	**2,100**
GCLs		**5,000**	**29,000**	**257,500**	**87,500**	**200,000**	**70,000**	**15**	**NE**	**NE**	**NE**	**NE**

µg/L - micrograms per liter
BDL – Below detection limits
Bold denotes concentration is greater than the 15A NCAC 2L Standard
GCL - Gross Contamination Level
NE – Not established

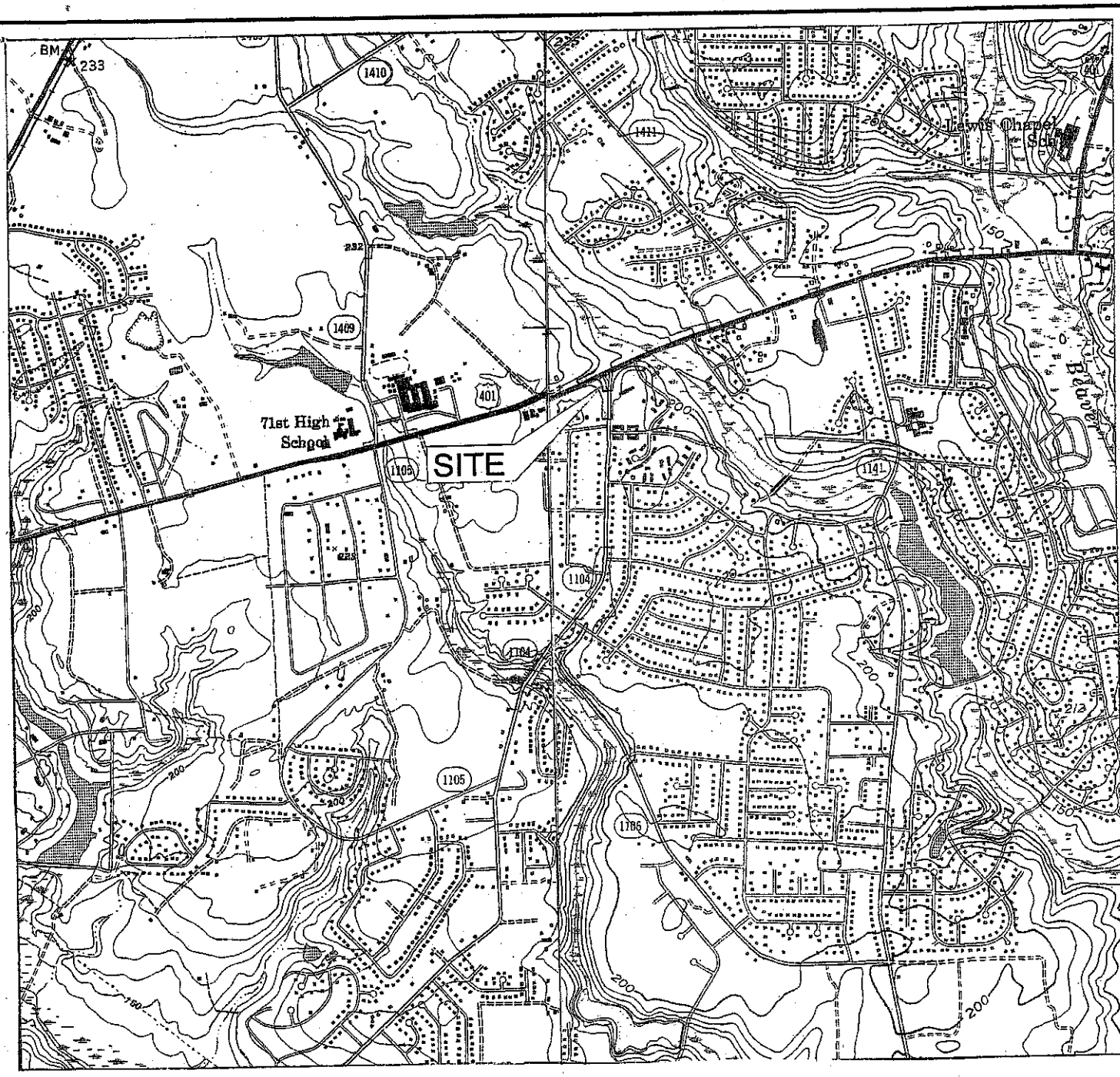
TABLE 2

Monitoring Well Construction and Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County
Project Number: 501403

Well ID	Date Installed	Total Depth (feet)	Screened Interval (feet)	Date Gauged	TOC Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
MW-1	03/22/01	30	10-30	04/30/01	496.98	16.52	18.87	479.99
MW-2	03/23/01	30	10-30	04/30/01	498.65	18.02	20.71	480.09
MW-3	03/23/01	30	10-30	04/30/01	496.65	--	16.85	479.80
MW-4	04/26/01	30	10-30	04/30/01	499.26	18.70	20.07	480.29
MW-5	04/26-27/01	45.5	41.1-45.5	04/30/01	496.88	--	17.10	479.78
RW-1	03/23/01	30	10-30	04/30/01	497.67	17.18	19.63	480.00
RW-2	03/23/01	30	10-30	04/30/01	498.14	17.63	20.05	480.03
RW-3	03/23/01	30	10-30	04/30/01	497.22	16.75	19.10	480.00

TOC – Top of casing elevations based on a survey by Chas. H. Sells, Inc.
*Groundwater Elevation = [(Top of Casing Elevation) - (DTW)] + (0.8*Product Thickness) ---- where applicable



SCALE 1:24000

1 0 1/2 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

NORTH

N.C.

QUADRANGLE LOCATION

CONTOUR INTERVAL 10 FEET

CLIFDALE, N.C.
SE/4 CLIFDALE 15' QUADRANGLE
N3500—W7900/7.5

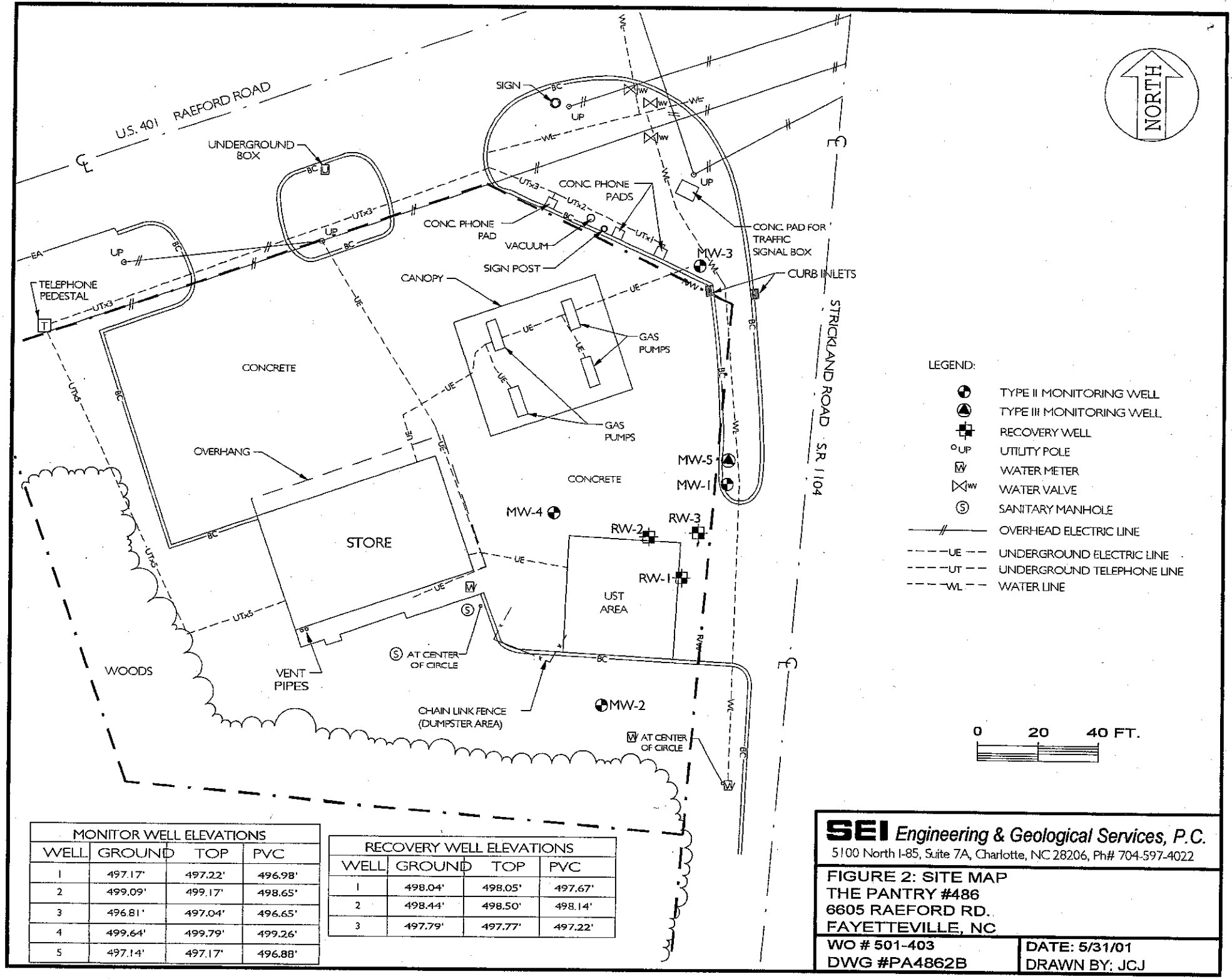
1948
PHOTOREVISED 1982
DMA 5154 II SE-SERIES V842

FAYETTEVILLE, N. C.
SW/4 FAYETTEVILLE 15' QUADRANGLE
35078-A8-TF-024

1957
PHOTOREVISED 1987
DMA 5254 III SW-SERIES V842

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 1: USGS QUADRANGLE MAP
THE PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, NC



MONITOR WELL ELEVATIONS			
WELL	GROUND	TOP	PVC
1	497.17'	497.22'	496.98'
2	499.09'	499.17'	498.65'
3	496.81'	497.04'	496.65'
4	499.64'	499.79'	499.26'
5	497.14'	497.17'	496.88'

RECOVERY WELL ELEVATIONS			
WELL	GROUND	TOP	PVC
1	498.04'	498.05'	497.67'
2	498.44'	498.50'	498.14'
3	497.79'	497.77'	497.22'

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 2: SITE MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403
DWG #PA4862B

DATE: 5/31/01
DRAWN BY: JCJ

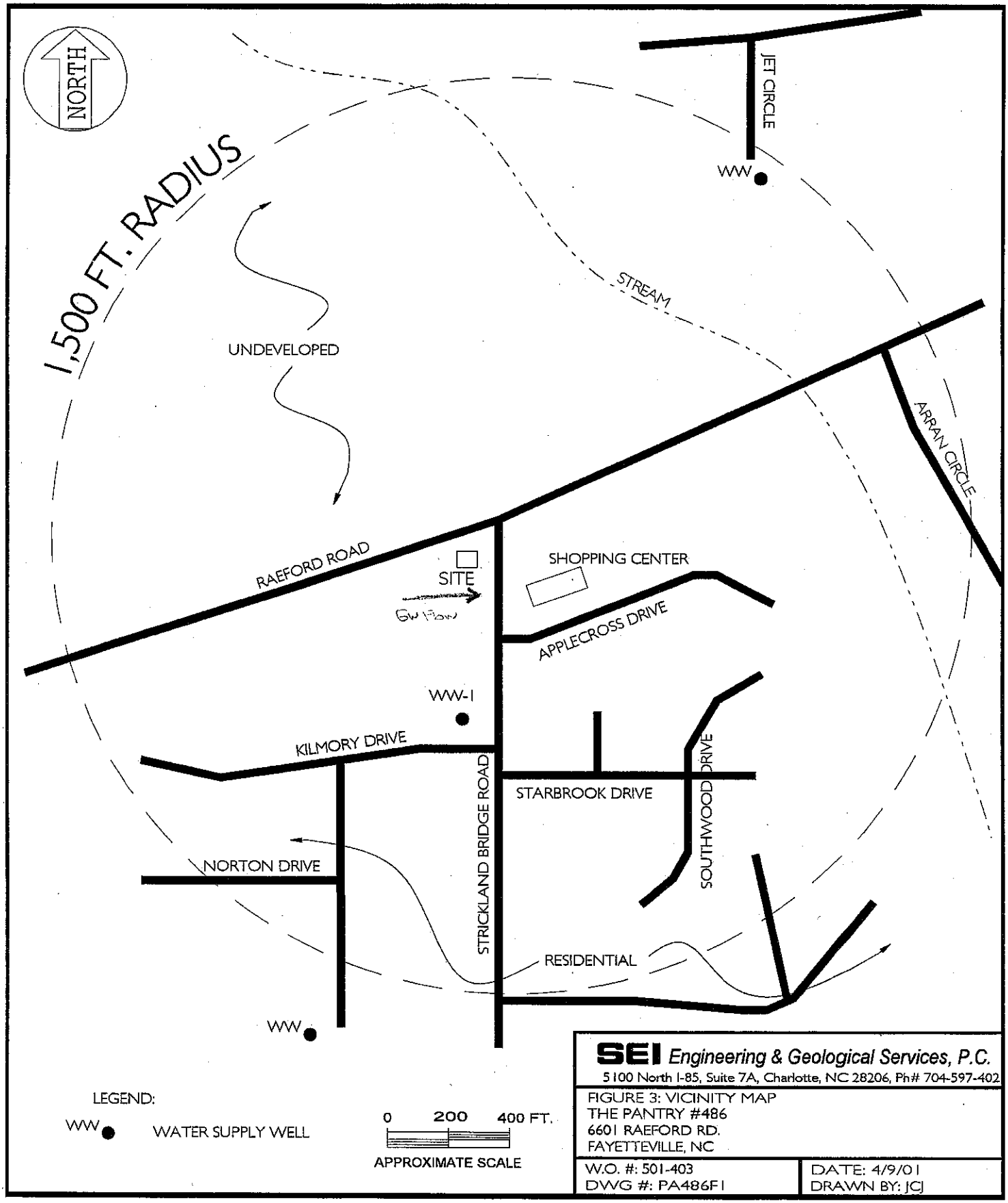


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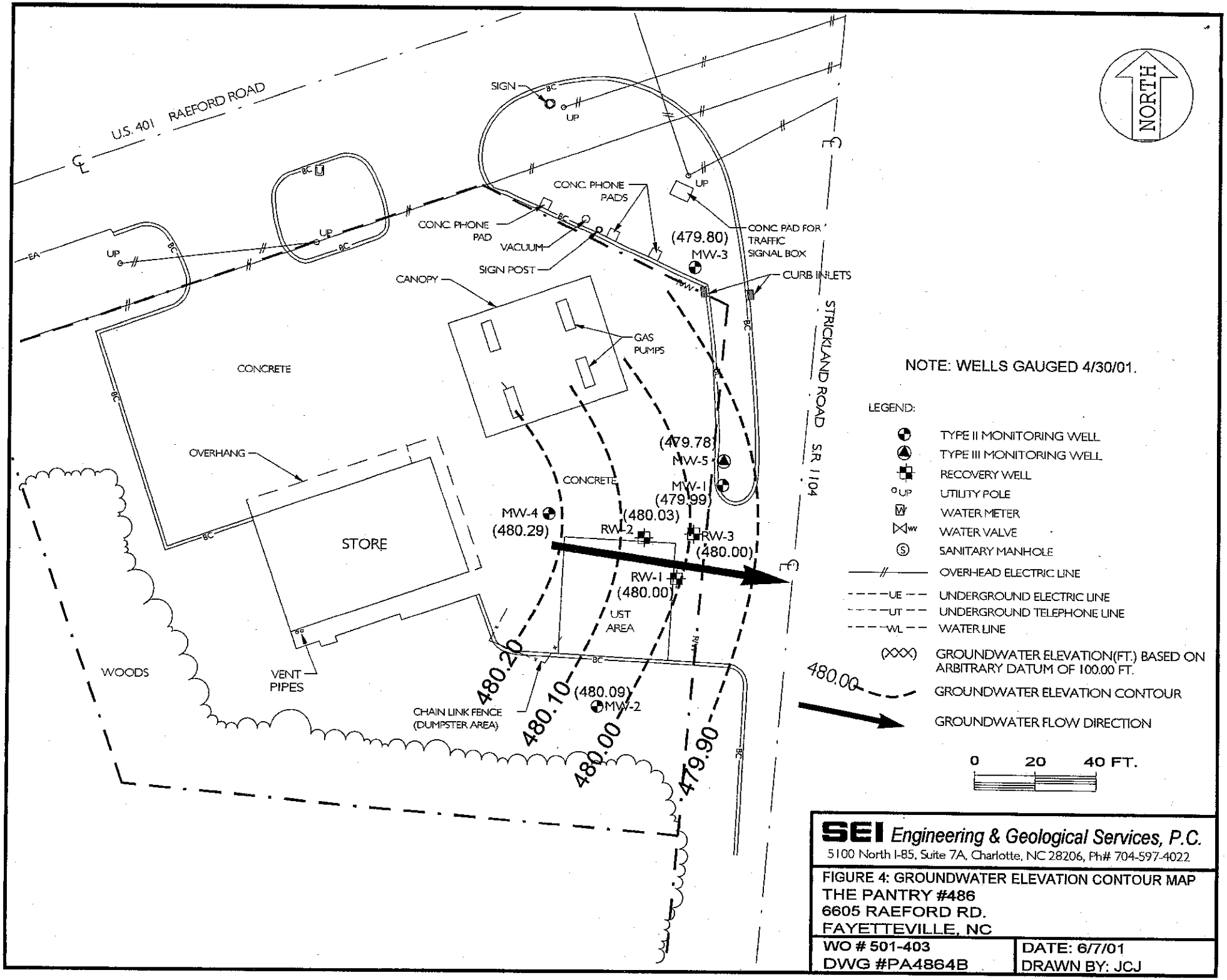
FIGURE 3: VICINITY MAP
THE PANTRY #486
6601 RAEFORD RD.
FAYETTEVILLE, NC

W.O. #: 501-403
DWG #: PA486F1

DATE: 4/9/01
DRAWN BY: JCJ



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5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 4: GROUNDWATER ELEVATION CONTOUR MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403	DATE: 6/7/01
DWG #PA4864B	DRAWN BY: JCJ

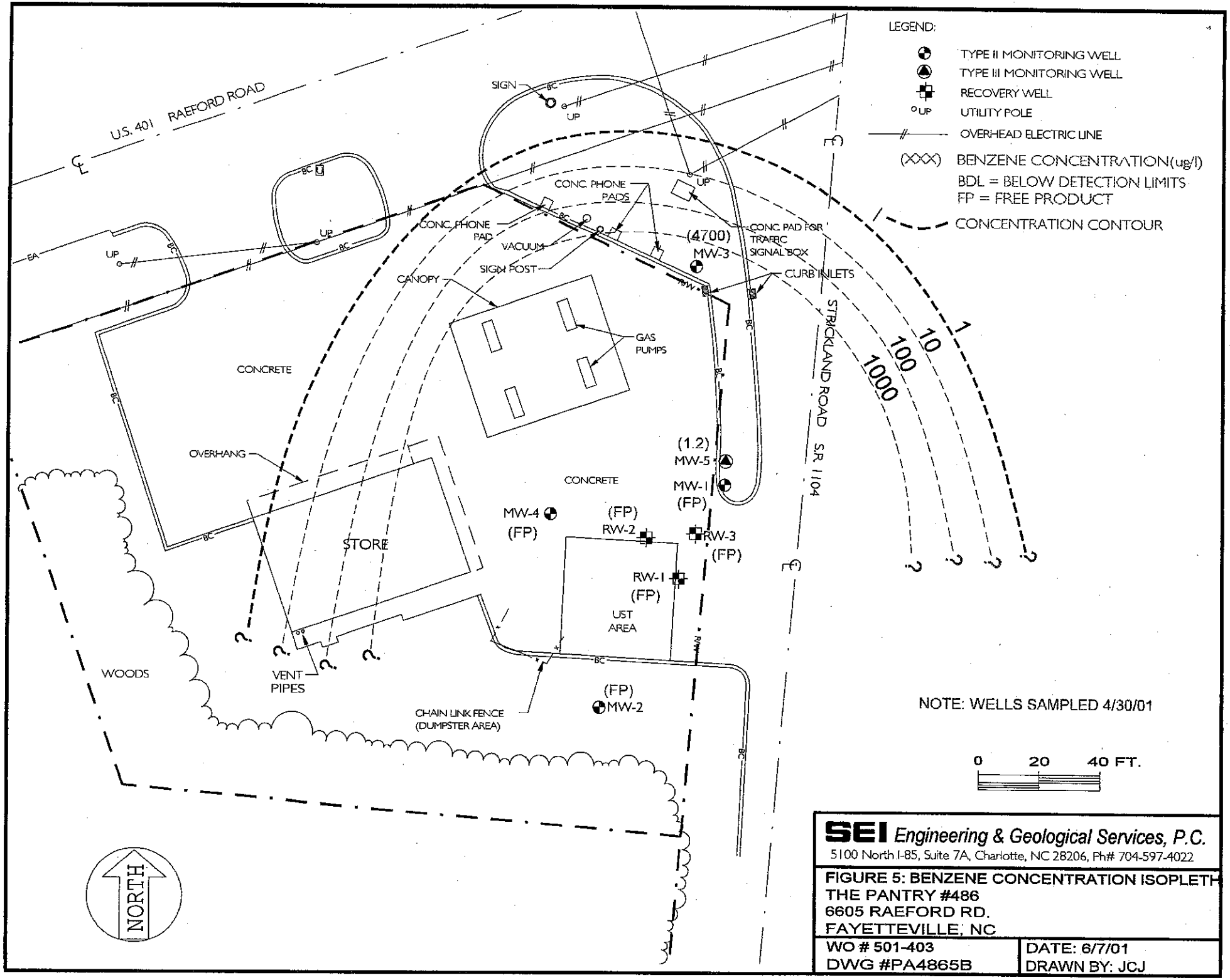

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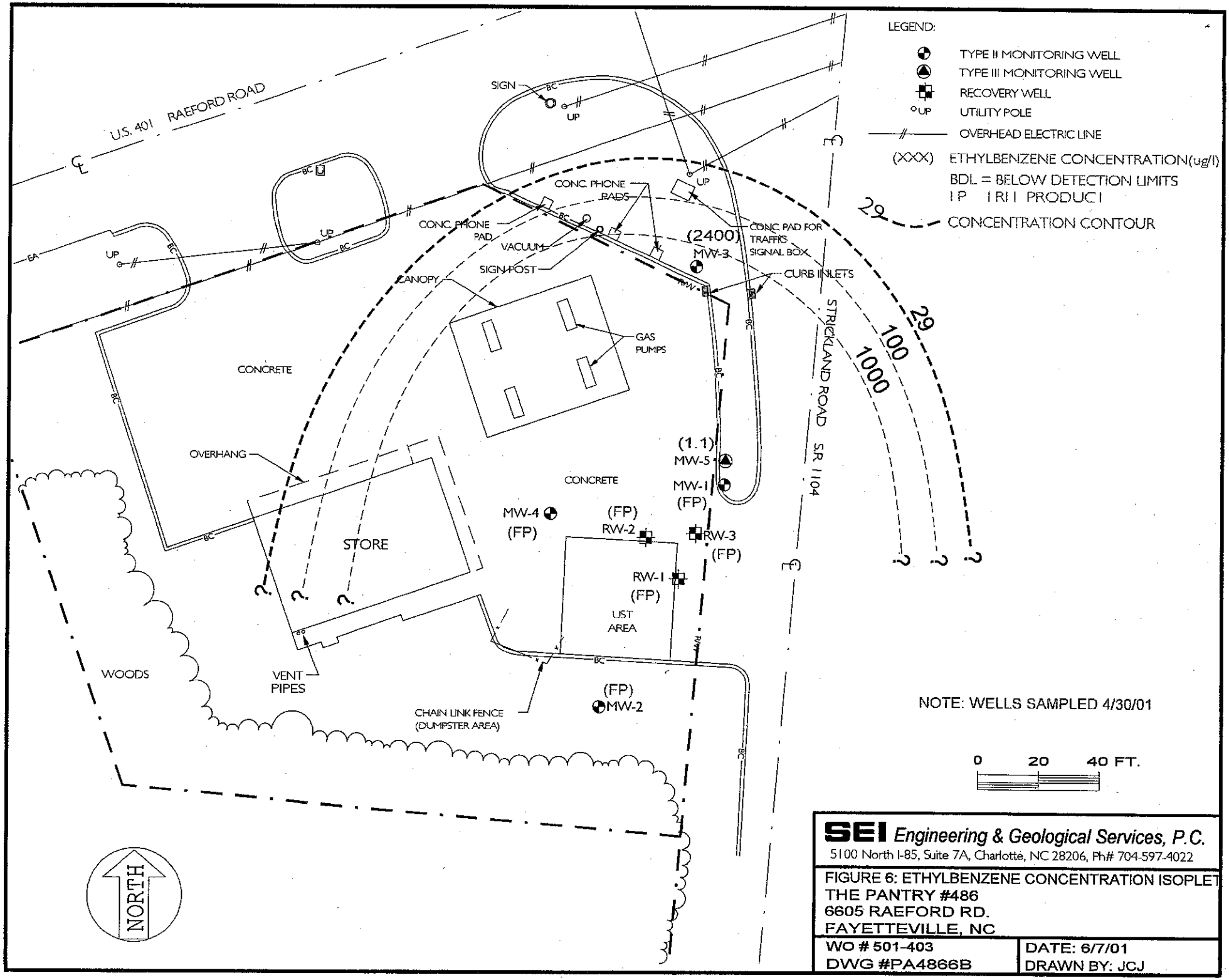
FIGURE 5: BENZENE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

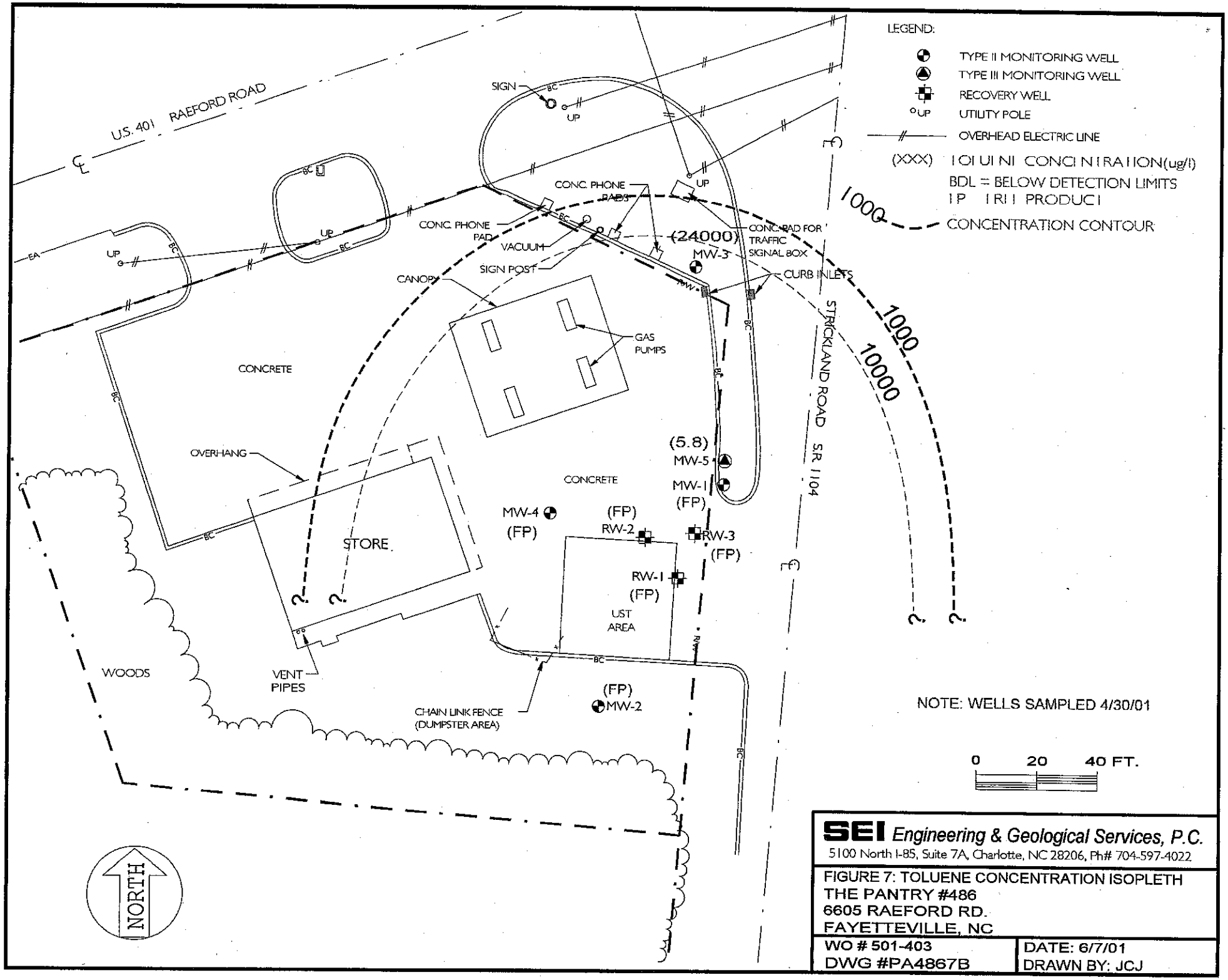
WO # 501-403	DATE: 6/7/01
DWG #PA4865B	DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 6: ETHYLBENZENE CONCENTRATION ISOPLET
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

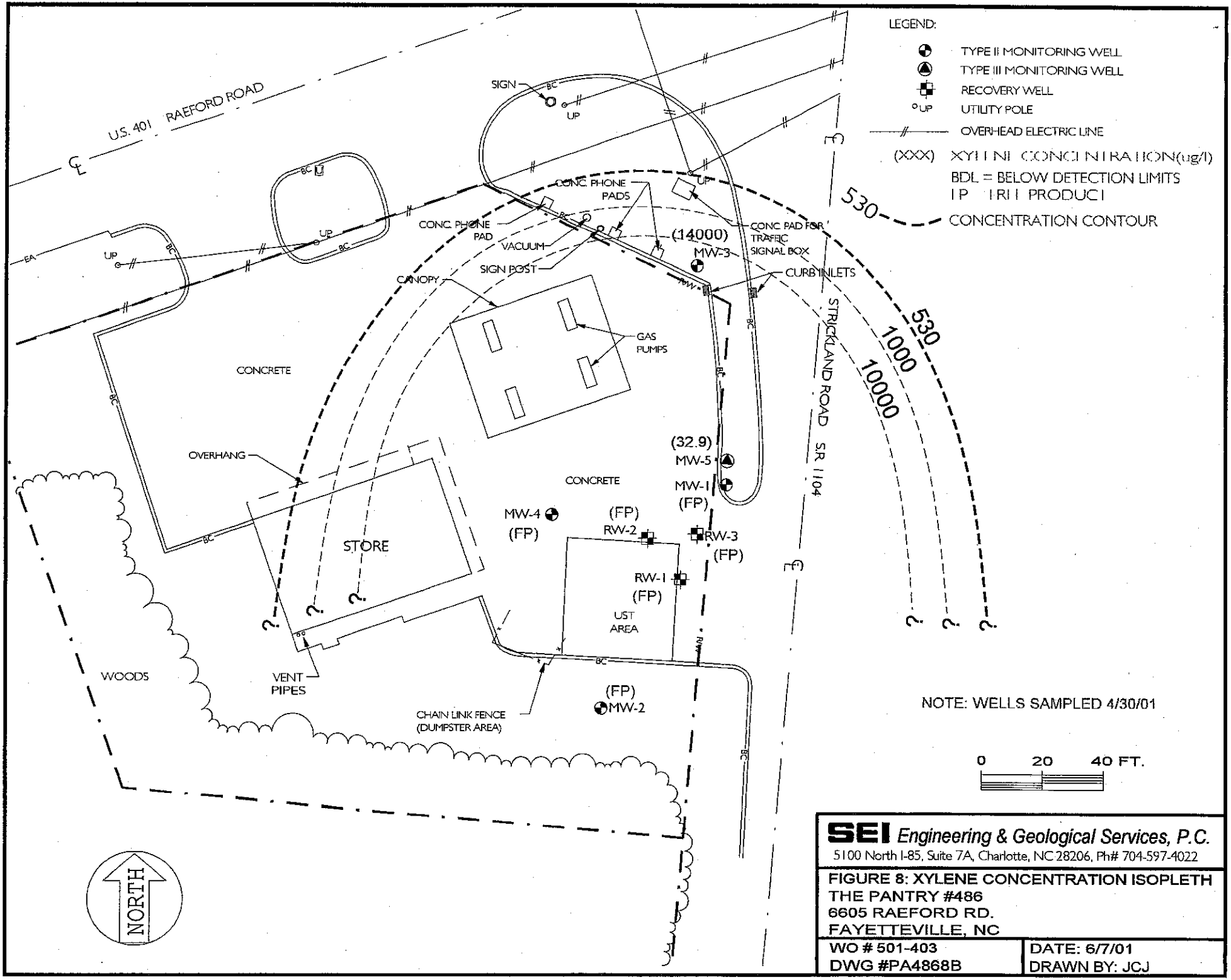
WO # 501-403	DATE: 6/7/01
DWG #PA4866B	DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 7: TOLUENE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

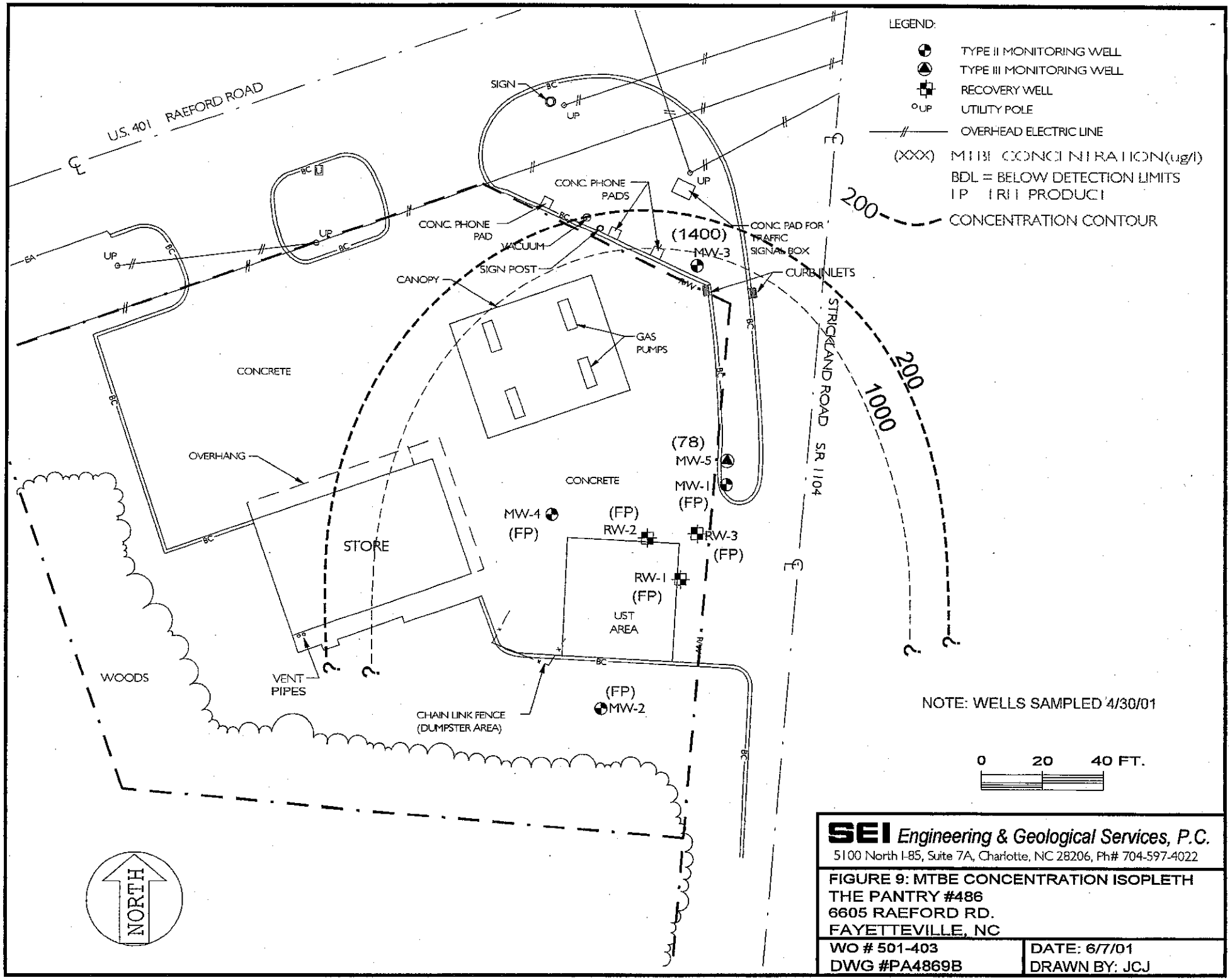
WO # 501-403	DATE: 6/7/01
DWG #PA4867B	DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 8: XYLENE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403	DATE: 6/7/01
DWG #PA4868B	DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 9: MTBE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-403	DATE: 6/7/01
DWG #PA4869B	DRAWN BY: JCJ

APPENDIX A

Limited Site Assessment Risk Classification and Land Use Form

Part I - Groundwater/Surface water/Vapor Impacts

High Risk

1. Has the discharge or release contaminated any water supply well including any used for non-drinking purposes? **YES/NO**
   If yes, explain. _____

2. Is a water supply well used for drinking water located within 1000 feet of the source area the discharge or release? **YES/NO**
   The nearest water supply well is located approximately 350 feet from the source area.

3. Is a water supply well used for any purpose (e.g., irrigation, washing cars, industrial cooling water, filling swimming pools) located within 250 feet of the source area of the release or discharge? **YES/NO**
   The nearest water supply well is located approximately 350 feet from the source area.

4. Does groundwater within 500 feet of the source area of the discharge or release have the potential for future use in that there is no other source of water supply other than the groundwater? **YES/NO**
   Explain. _____

5. Do vapors from the discharge or release pose a threat of explosion because of accumulation of the vapors in a confined space or pose any other serious threat to public health, public safety or the environment? **YES/NO**
   If yes, explain. _____

6. Are there any other factors that would cause the discharge or release to pose an imminent danger to public health, public safety, or the environment? **YES/NO**
   If yes, explain. _____

Intermediate Risk

7. Is a surface water body located within 500 feet of the source area of the discharge or release? **YES/NO**

If yes, does the maximum groundwater contaminant concentration exceed the surface water quality standards and criteria found in 15A NCAC 2B .0200 by a factor of 10? **YES/NO**

8. Is the source area of the discharge or release located within a designated wellhead protection area as defined in 42 USC 300h-7(e)? **YES/NO**
If yes, explain.

9. Is the discharge or release located in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985? **YES/NO**

The site is located in the Middendorf Formation of the Coastal Plain physiographic region.

If yes, is the source area of the discharge or release located in an area in which there is recharge to an unconfined or semi-confined deeper aquifer that is being used or may be used as a source of drinking water? **YES/NO**
The source area is located in the crystalline rock aquifer, which is semi-confined to confined.

10. Do the levels of groundwater contamination for any contaminant exceed the gross contamination levels established (see Table 7) by the Department. **YES/NO**
Free product was observed in monitoring wells.

Part II - Land Use

Property Containing Source Area of Discharge or Release

The questions below pertain to the property containing the source area of the release.

1. Does the property contain one or more primary or secondary residences (permanent or temporary)? **YES/NO**
   Explain. _____

2. Does the property contain a school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly? **YES/NO**
   Explain. _____

3. Does the property contain a commercial (e.g., retail, warehouse, office/business space, etc.) or industrial (e.g., manufacturing, utilities, industrial research and development, chemical/petroleum bulk storage, etc.) enterprise, an inactive commercial or industrial enterprise, or is the land undeveloped? **YES/NO**
   Explain. Retail gasoline and convenience store.

4. Do children visit the property? **YES/NO**
   Explain. Children visit the property for short periods while accompanying parents purchasing gasoline and/or groceries.

5. Is access to the property reliably restricted consistent with its use (e.g., by fences, security personnel or both)? **YES/NO**
   Explain. The property is an active retail location and does not require restricted access.

6. Do pavement, buildings, or other structures cap the contaminated soil? **YES/NO**
   Explain. The parking lot is paved with concrete and asphalt.

   If yes, what mechanisms are in place or can be put into place to ensure that the contaminated soil will remain capped in the foreseeable future? The site will likely remain an active retail gasoline and convenience store with a paved parking lot.

7. What is the zoning status of the property? CP – Planned Commercial

8. Is the use of the property likely to change in the next 20 years? YES (NO)
   Explain. The facility will likely remain a retail gasoline and convenience store for the foreseeable future.

Property Surrounding Source Area of Discharge or Release

The questions below pertain to the area within 1500 feet of the source area of the discharge or release (excludes property containing source area of the release):

11. What is the distance from the source area of the release to the nearest primary or secondary residence (permanent or temporary)? The nearest residences are located approximately 150 feet south of the site.

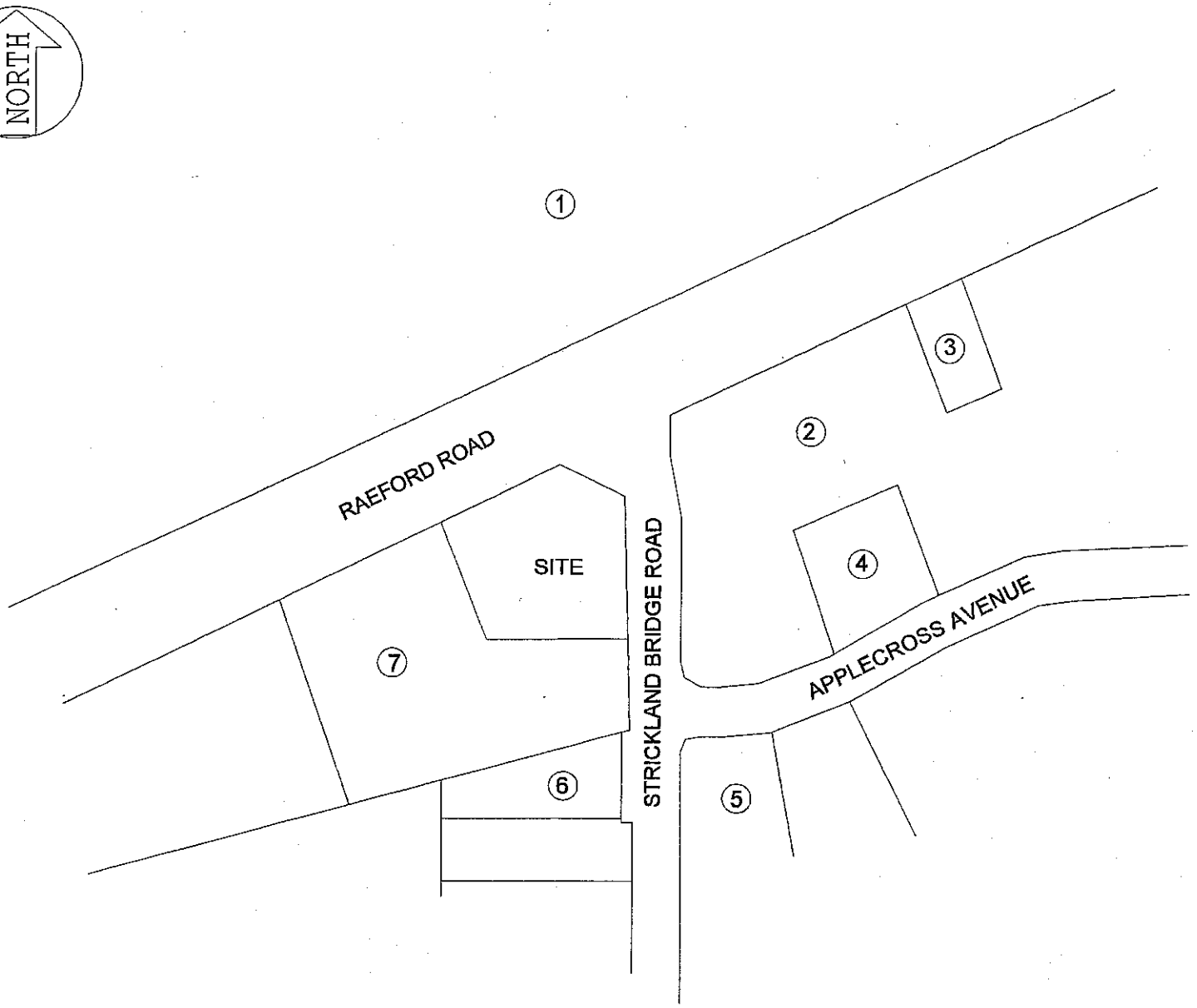
12. What is the distance from the source area of the release to the nearest school, daycare center, hospital, playground, park, recreation area, church, nursing home or other place of public assembly? The nearest place of public assembly is a church located approximately 500 feet southeast from the site.

13. What is the zoning status of properties in the surrounding area? The surrounding properties are zoned planned commercial and residential.

14. Briefly characterize the use and activities of the land in the surrounding area. The surrounding area is a mix of residences, businesses, and undeveloped property along the main roads, and residences on the side roads.

APPENDIX B

Surrounding Property Owners The Pantry #486 6605 Raeford Road Fayetteville, North Carolina Cumberland County Project Number: 501403		
Location on Vicinity Map	**Property Owner**	**Mailing Address**
1	Sharlene R. Williams	PO Box 53646 Fayetteville, NC 28305
2,3,4	William H. Elliot, Jr.	P O Box 9267 Fayetteville, NC 28311-7696
5	Helen D. Autry	PO Box 41526 Fayetteville, NC 28309
6	In Kyung Song	874 Strickland Bridge Rd. Fayetteville, NC 28304
7	Joseph H. Gillis Betty H. Gillis James D. Gillis	PO Box 736 Fayetteville, NC 28302



0 100 200 FT.

APPROXIMATE SCALE

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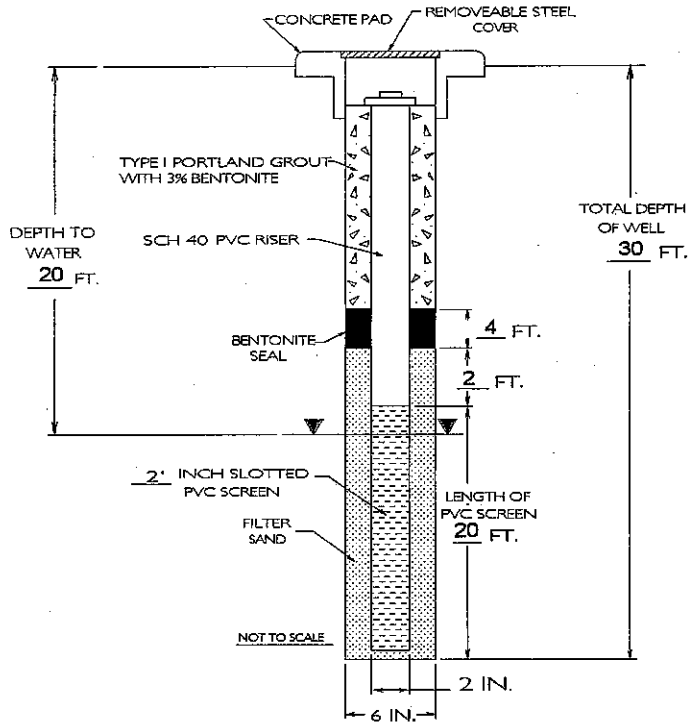
SURROUNDING PROPERTIES
THE PANTRY #486
6601 RAEFORD RD.
FAYETTEVILLE, NC

W.O. #: 501-403	DATE: 4/9/01
DWG #: PA4861B	DRAWN BY: JCJ

APPENDIX C

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION: MW-1 DATE DRILLED: 03/22/01
STATE PERMIT #: _____ WORK ORDER #: 501403
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____

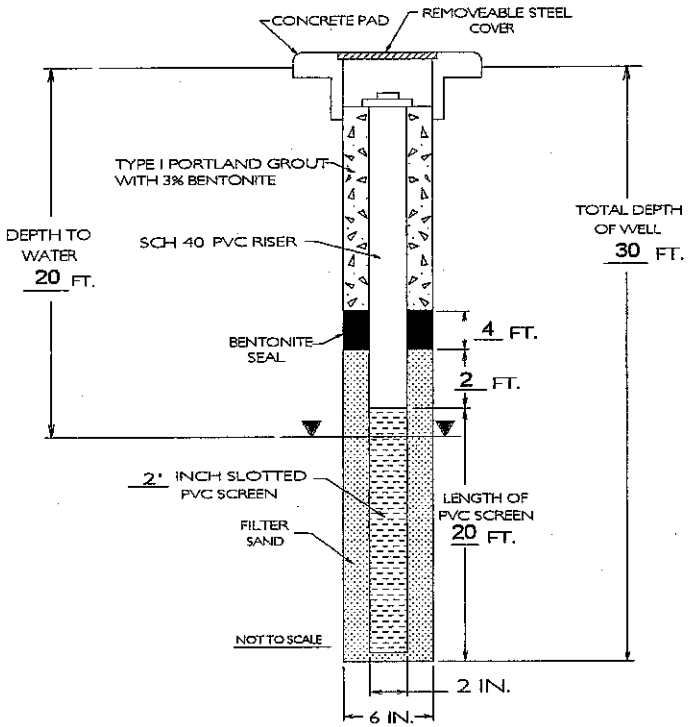


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS: _____

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						Yellow-brown to tan-brown silty sand
8						Gray-tan clayey sand
17						Tan-gray to gray-brown silty sand
30						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION: MW-2 DATE DRILLED: 03/23/01
STATE PERMIT #: _____ WORK ORDER #: 501403
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____

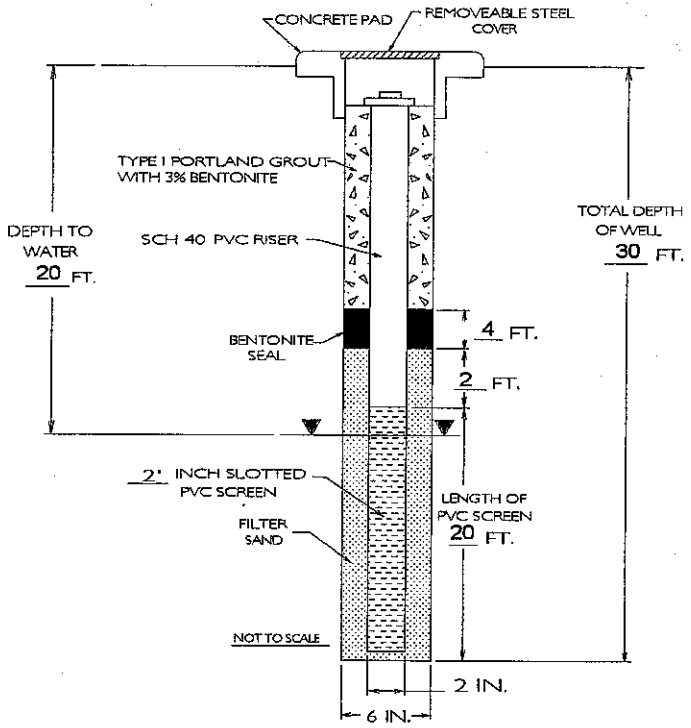


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS: _____

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						Yellow-brown to tan-brown silty sand
8						Gray-tan clayey sand
17						Tan-gray to gray-brown silty sand
30						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION: MW-3 DATE DRILLED: 03/23/01
STATE PERMIT #: _____ WORK ORDER #: 501403
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____

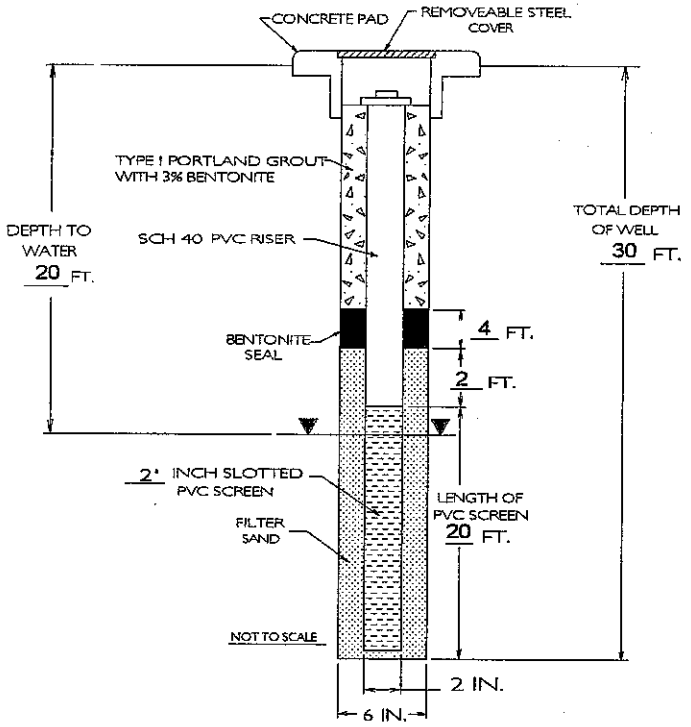


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS: _____

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOV-ERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						Yellow-brown to tan-brown silty sand
8						Gray-tan clayey sand
17						Tan-gray to gray-brown silty sand
30						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION: MW-4 DATE DRILLED: 04/26/01
STATE PERMIT #: _____ WORK ORDER #: 501403
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____

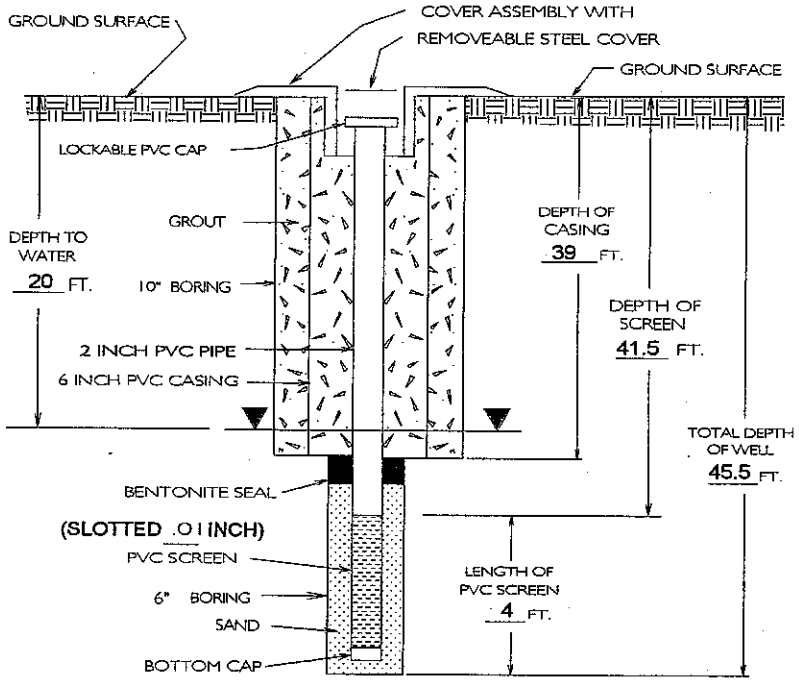


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS: _____

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						Red-brown silty sand to clayey sand
6						Dark gray silty clay
8						Tan-brown silty sand to clayey sand
30						Bottom of Boring

Boring Log and Type III Well Construction Details

WELL IDENTIFICATION: MW-5 DATE DRILLED: 04/26/01 & 04/27/01
STATE PERMIT #: _____ WORK ORDER #: 501403
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____



DRILLING METHOD: Hollow Stem Auger/mud rotary
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica sand
SLOT SIZE: 0.010"
COMMENTS: _____

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						
2						Gray-brn clayey silt
5						Gray-brn to red-brn sandy silt with gravel
7						Gray-brn sandy clay
						Red-brn sli. clayey sandy silt
12						
						Lt. tan silty fine sand to cse. sand
45.5						
						Bottom of Boring

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration - Mark Gettys

DRILLER REGISTRATION NUMBER 2345

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-1

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. - The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 03/22/01 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL 20 FT. [ ] Above [X] 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 4	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter	Slot Size	Material
FROM	10	TO 30	FT	2 in	.010 in	PVC
FROM		TO	FT	in	in	

13. GRAVEL PACK:

	Depth			Size	Material
FROM	8	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

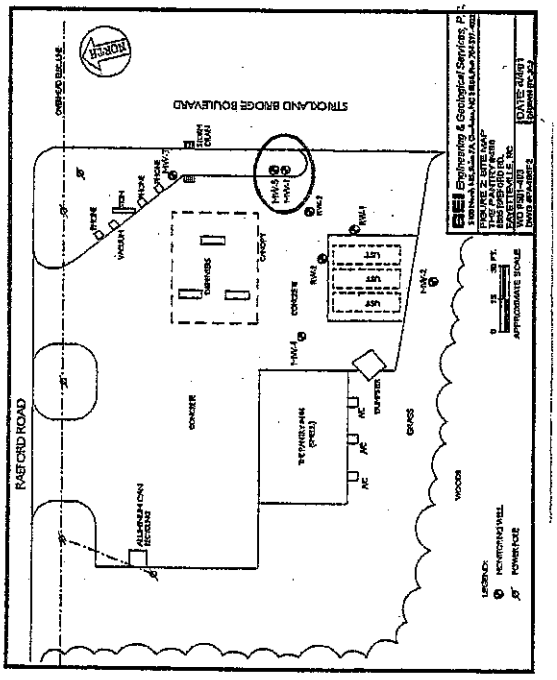
DRILLING LOG

Depth From	Depth To	Formation Description
0	8	Yellow-tan to tan-brn silty sand
8	17	Gray-tan clayey sand
17	30	Tan-gray to gray-brn silty sand

If additional spaces 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: Bentonite seal from 4' to 8'

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 4-27-01

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Brian Thomas

DRILLER REGISTRATION NUMBER 2581

MW-2

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

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

Nearest Town: Fayetteville

6605 Raeford Road

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

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486

ADDRESS PO Box 1410

(Street or Route No.)

Sanford	NC	27330
City or Town	State	Zip Code

3. DATE DRILLED 03/23/01 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL 20 FT. [ ] Above [X] 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO	10 FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO	4 FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter	Slot Size	Material
FROM	10	TO	30 FT	2 in	.010 in	PVC
FROM		TO	FT	in	in	

13. GRAVEL PACK:

	Depth			Size	Material
FROM	8	TO	30 FT	20/40	Silica Sand
FROM		TO	FT		

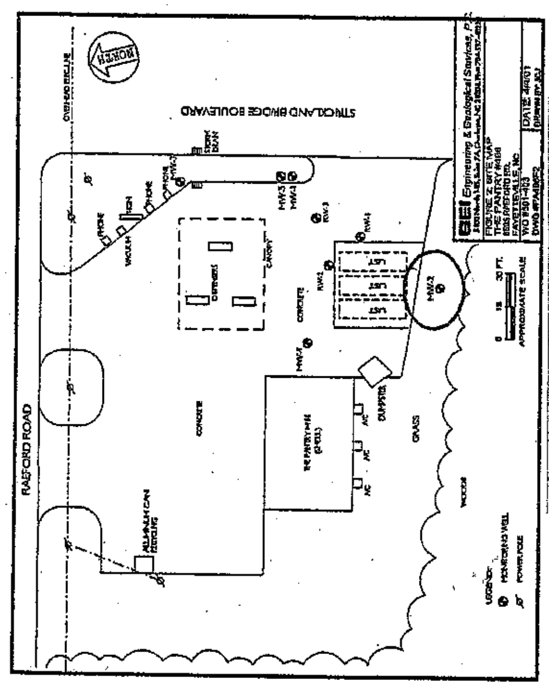
DRILLING LOG

Depth From	Depth To	Formation Description
0	8	Yellow-tan to tan-brn silty sand
8	17	Gray-tan clayey sand
17	30	Tan-gray to gray-brn silty sand

If additional spaces 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: Bentonite seal from 4' to 8'

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] 4-27-01

SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration - Brian Thomas

DRILLER REGISTRATION NUMBER 2581

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-3

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. - The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 03/23/01 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes ☒ No ☐

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

6. STATIC WATER LEVEL 20 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 4	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter		Slot Size		Material
FROM	10	TO 30	FT	2	in	.010	in	PVC
FROM		TO	FT		in		in	

13. GRAVEL PACK:

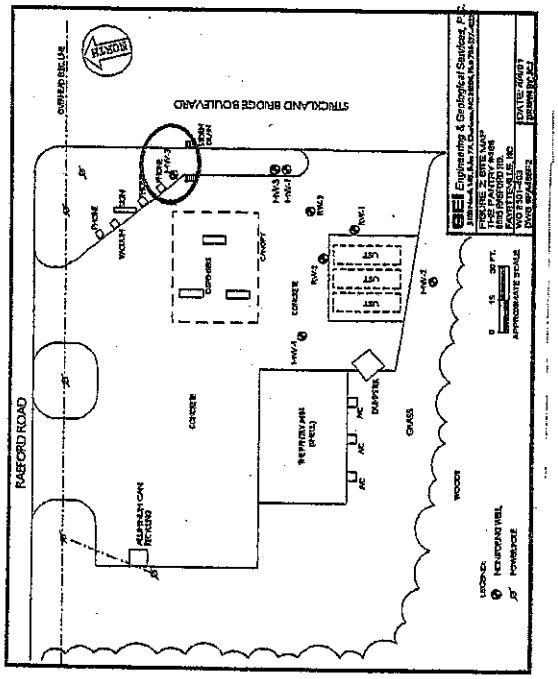
	Depth			Size	Material
FROM	8	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

14. REMARKS: Bentonite seal from 4' to 8'

Depth From	Depth To	DRILLING LOG Formation Description
0	8	Yellow-tan to tan-brn silty sand
8	17	Gray-tan clayey sand
17	30	Tan-gray to gray-brn silty sand

If additional spaces 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.

Neil D. Dee 4-27-01
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Mike McConahey

DRILLER REGISTRATION NUMBER 2402

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-4

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 04/26/01 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL 20 FT. [ ] Above TOP OF CASING.
[X] Below
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.

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

8. WATER ZONES (depth): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 4	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter	Slot Size	Material
FROM	10	TO 30	FT	2 in	.010 in	PVC
FROM		TO	FT	in	in	

13. GRAVEL PACK:

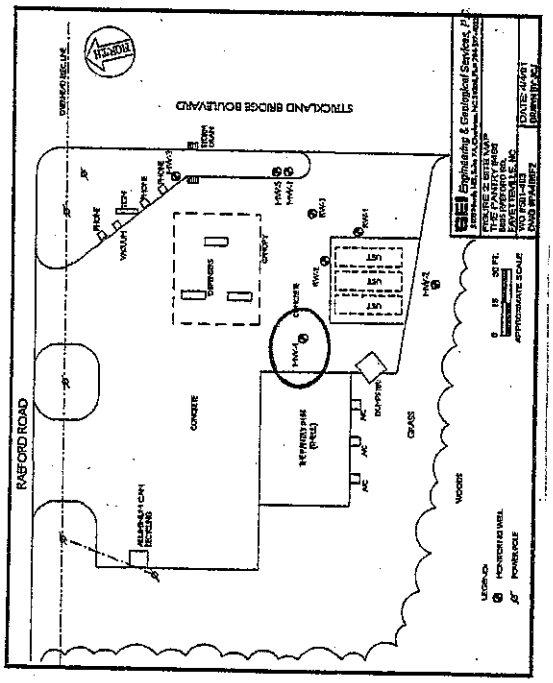
	Depth			Size	Material
FROM	8	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	6	Red-brn silty sand to clayey sand
6	8	Dk. gray silty clay
8	30	Tan-brn silty sand to clayey sand

If additional spaces 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: Bentonite seal from 4' to 8'

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 4-27-01

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Mike McConahey

DRILLER REGISTRATION NUMBER 2402

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-5

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. - The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 04/26-27/01 USE OF WELL Monitoring

4. TOTAL DEPTH 45.5' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL 20 FT. [ ] Above [X] 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 39	FT	6"	Sch 40	PVC
FROM	0	TO 41.5	FT	2"	Sch 40	PVC

11. GROUT:

	Depth			Material	Method
FROM	0	TO 39	FT	Portland	Slurry
FROM	0	TO 37	FT	Portland	Slurry

12. SCREEN:

	Depth			Diameter	Slot Size	Material
FROM	41.5	TO 45.5	FT	2 in	.010 in	PVC
FROM		TO	FT	in	in	

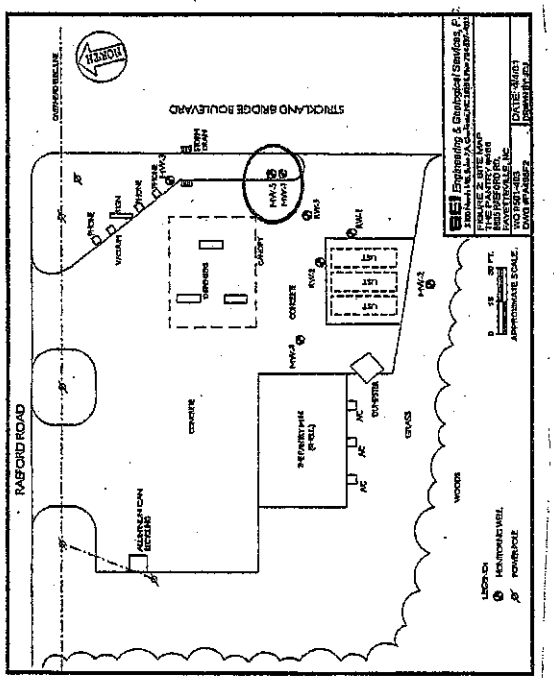
13. GRAVEL PACK:

	Depth			Size	Material
FROM	40	TO 45.5	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	2	Gray-brn clayey silt
2	5	Gray-brn to red-brn sandy silt with gravel
5	7	Gray-brn sandy clay
7	12	Red-brn sli. clayey sandy silt
12	45.5	Lt. tan silty fine sand to cse. sand

If additional spaces 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: Bentonite seal from 37' to 40' ; Double Cased Well

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.

Neil O. O'Neil 4-27-01
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 Revised 6/88

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

APPENDIX D

Environmental Conservation Laboratories, Inc.
4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
904 / 296-3007
Fax 904 / 296-6210
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E82277

CLIENT : SEI Environmental, Inc.
ADDRESS: 130 Penmarc Drive
Suite 108
Raleigh, NC 27603

REPORT # : JAX17303
DATE SUBMITTED: May 1, 2001
DATE REPORTED : May 9, 2001

ATTENTION: Mr. Douglas Parker

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

PROJECT #: 501403

Pantry 486

04/30/01

#1 - MW-3 @ 13:20
#2 - MW-5 @ 13:05
#3 - WW-1 @ 13:30

PROJECT MANAGER Scott D. Martin

RESULTS OF ANALYSIS

EPA METHOD 601 - VOLATILE HALOCARBONS	MW-3		MW-5	Units
Dichlorodifluoromethane	1000 U	D1	1.0 U	µg/L
Chloromethane	1000 U	D1	1.0 U	µg/L
Vinyl Chloride	1000 U	D1	1.0 U	µg/L
Bromomethane	1000 U	D1	1.0 U	µg/L
Chloroethane	1000 U	D1	1.0 U	µg/L
Trichlorofluoromethane	2000 U	D1	2.0 U	µg/L
1,1-Dichloroethene	1000 U	D1	1.0 U	µg/L
Methylene Chloride	5000 U	D1	5.0 U	µg/L
t-1,2-Dichloroethene	1000 U	D1	1.0 U	µg/L
1,1-Dichloroethane	1000 U	D1	1.0 U	µg/L
c-1,2-Dichloroethene	1000 U	D1	1.0 U	µg/L
Chloroform	1000 U	D1	1.0 U	µg/L
1,1,1-Trichloroethane	1000 U	D1	1.0 U	µg/L
Carbon Tetrachloride	1000 U	D1	1.0 U	µg/L
1,2-Dichloroethane	1000 U	D1	1.0 U	µg/L
Trichloroethene	1000 U	D1	1.0 U	µg/L
1,2-Dichloropropane	1000 U	D1	1.0 U	µg/L
Bromodichloromethane	1000 U	D1	1.0 U	µg/L
c-1,3-Dichloropropene	1000 U	D1	1.0 U	µg/L
t-1,3-Dichloropropene	1000 U	D1	1.0 U	µg/L
1,1,2-Trichloroethane	1000 U	D1	1.0 U	µg/L
Tetrachloroethene	1000 U	D1	1.0 U	µg/L
Dibromochloromethane	1000 U	D1	1.0 U	µg/L
Chlorobenzene	1000 U	D1	1.0 U	µg/L
Bromoform	1000 U	D1	1.0 U	µg/L
1,1,2,2-Tetrachloroethane	1000 U	D1	1.0 U	µg/L
1,3-Dichlorobenzene	1000 U	D1	1.0 U	µg/L
1,4-Dichlorobenzene	1000 U	D1	1.0 U	µg/L
1,2-Dichlorobenzene	1000 U	D1	1.0 U	µg/L

Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	93	75	37-161
Date Analyzed	05/07/01	05/06/01	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:1000 dilution.

RESULTS OF ANALYSIS

EPA METHOD 602 - VOLATILE AROMATICS	MW-3		MW-5	Units
Methyl tert-butyl ether	**1900**	D1	**78**	µg/L
Isopropyl Ether	1000 U	D1	**3.7**	µg/L
Benzene	**4700**	D1	**1.2**	µg/L
Toluene	**24000**	D1	**5.8**	µg/L
Chlorobenzene	1000 U	D1	1.0 U	µg/L
Ethylbenzene	**2400**	D1	**1.1**	µg/L
m-Xylene & p-Xylene	**8900**	D1	**8.9**	µg/L
o-Xylene	**4100**	D1	**18**	µg/L
1,3-Dichlorobenzene	1000 U	D1	1.0 U	µg/L
1,4-Dichlorobenzene	1000 U	D1	1.0 U	µg/L
1,2-Dichlorobenzene	1000 U	D1	1.0 U	µg/L
Surrogate:	**% RECOV**		**% RECOV**	**LIMITS**
Bromofluorobenzene	109		102	52-147
Date Analyzed	05/07/01		05/06/01	

EPA METHOD 504 - ETHYLENE DIBROMIDE	MW-3	MW-5	Units
Ethylene Dibromide	0.020 U	0.020 U	µg/L
Date Prepared	05/03/01	05/03/01	
Date Analyzed	05/03/01	05/03/01	

U = Compound was analyzed for but not detected to the level shown.
D1 = Analyte value determined from a 1:1000 dilution.

RESULTS OF ANALYSIS

EPA METHOD MA VPH - Vol. Petr. Hydrocarbons	MW-3		MW-5	Units
C5-C8 Aliphatics	38000	D2	260	µg/L
C9-C12 Aliphatics	18000	D2	49	µg/L
Surrogate:	% RECOV		% RECOV	LIMITS
2,5-Dibromotoluene	80		77	70-130
Date Analyzed	05/03/01		05/03/01	

EPA METHOD MA VPH - Vol. Petr. Hydrocarbons	MW-3		MW-5	Units
C9-C10 Aromatics	9800	D2	54	µg/L
Surrogate:	% RECOV		% RECOV	LIMITS
2,5-Dibromotoluene	101		86	70-130
Date Analyzed	05/03/01		05/03/01	

TOTAL METALS	METHOD	MW-3	MW-5	Units
Lead	200.7	0.011 U	0.011 U	mg/L
Date Analyzed		05/08/01	05/08/01	

U = Compound was analyzed for but not detected to the level shown.
D2 = Analyte value determined from a 1:20 dilution.

ENCO LABORATORIES
REPORT # : JAX17303
DATE REPORTED: May 9, 2001
REFERENCE : 501403
PROJECT NAME : Pantry 486

RESULTS OF ANALYSIS

EPA METHOD 601 - VOLATILE HALOCARBONS	WW-1	LAB BLANK	Units
Dichlorodifluoromethane	1.0 U	1.0 U	µg/L
Chloromethane	1.0 U	1.0 U	µg/L
Vinyl Chloride	1.0 U	1.0 U	µg/L
Bromomethane	1.0 U	1.0 U	µg/L
Chloroethane	1.0 U	1.0 U	µg/L
Trichlorofluoromethane	2.0 U	2.0 U	µg/L
1,1-Dichloroethene	1.0 U	1.0 U	µg/L
Methylene Chloride	5.0 U	5.0 U	µg/L
t-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
1,1-Dichloroethane	1.0 U	1.0 U	µg/L
c-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
Chloroform	1.0 U	1.0 U	µg/L
1,1,1-Trichloroethane	1.0 U	1.0 U	µg/L
Carbon Tetrachloride	1.0 U	1.0 U	µg/L
1,2-Dichloroethane	1.0 U	1.0 U	µg/L
Trichloroethene	1.0 U	1.0 U	µg/L
1,2-Dichloropropane	1.0 U	1.0 U	µg/L
Bromodichloromethane	1.0 U	1.0 U	µg/L
c-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	µg/L
Tetrachloroethene	1.0 U	1.0 U	µg/L
Dibromochloromethane	1.0 U	1.0 U	µg/L
Chlorobenzene	1.0 U	1.0 U	µg/L
Bromoform	1.0 U	1.0 U	µg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	µg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	µg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	µg/L

Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	63	50	37-161
Date Analyzed	05/06/01	05/06/01	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD 602 - VOLATILE AROMATICS	WW-1	LAB BLANK	Units
Methyl tert-butyl ether	1.0 U	1.0 U	µg/L
Isopropyl Ether	1.0 U	1.0 U	µg/L
Benzene	1.0 U	1.0 U	µg/L
Toluene	1.0 U	1.0 U	µg/L
Chlorobenzene	1.0 U	1.0 U	µg/L
Ethylbenzene	1.0 U	1.0 U	µg/L
m-Xylene & p-Xylene	1.0 U	1.0 U	µg/L
o-Xylene	1.0 U	1.0 U	µg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	µg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	µg/L
Surrogate:	% RECOV	% RECOV	LIMITS
Bromofluorobenzene	106	108	52-147
Date Analyzed	05/06/01	05/06/01	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD MA VPH - Vol. Petr. Hydrocarbons	LAB BLANK	Units
C5-C8 Aliphatics	40 U	µg/L
C9-C12 Aliphatics	20 U	µg/L
Surrogate:	**% RECOV**	**LIMITS**
2,5-Dibromotoluene	95	70-130
Date Analyzed	05/02/01	

EPA METHOD MA VPH - Vol. Petr. Hydrocarbons	LAB BLANK	Units
C9-C10 Aromatics	20 U	µg/L
Surrogate:	**% RECOV**	**LIMITS**
2,5-Dibromotoluene	122	70-130
Date Analyzed	05/02/01	

TOTAL METALS	METHOD	LAB BLANK	Units
Lead	200.7	0.011 U	mg/L
Date Analyzed		05/08/01	

EPA METHOD 504 - ETHYLENE DIBROMIDE	LAB BLANK	Units
Ethylene Dibromide	0.020 U	µg/L
Date Prepared	05/03/01	
Date Analyzed	05/03/01	

U = Compound was analyzed for but not detected to the level shown.

RESULTS OF ANALYSIS

EPA METHOD MA VPH - Vol. Petr. Hydrocarbons	LAB BLANK	Units
C5-C8 Aliphatics	40 U	µg/L
C9-C12 Aliphatics	20 U	µg/L
Surrogate:	**% RECOV**	**LIMITS**
2,5-Dibromotoluene	95	70-130
Date Analyzed	05/03/01	

EPA METHOD MA VPH - Vol. Petr. Hydrocarbons	LAB BLANK	Units
C9-C10 Aromatics	20 U	µg/L
Surrogate:	**% RECOV**	**LIMITS**
2,5-Dibromotoluene	111	70-130
Date Analyzed	05/03/01	

U = Compound was analyzed for but not detected to the level shown.

QSARF #_____

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824-8529
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE	PROJECT NO.	P.O. NUMBER
PANTRY 486	501403	4490

PROJECT LOC. (State)	SAMPLER(S) NAME	PHONE	FAX
NC	DONALD MORSE	(919) 832-2535	(919) 832-5914

CLIENT NAME	CLIENT PROJECT MANAGER
SEI	Douglas Parker

CLIENT ADDRESS (CITY, STATE, ZIP): 130 Penmarc Drive Suite 108 Raleigh NC 27603

PAGE 1 OF 1

☒ STANDARD REPORT DELIVERY

☐ EXPEDITED REPORT DELIVERY (surcharge)

Date Due:_____

SAMPLE						MATRIX TYPE										PRESERVATIVE									
STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER		VPH	601/602 MTBE 602	EDB 504.1	3030(C) Pb						REMARKS
																NUMBER OF CONTAINERS SUBMITTED									
																HCL	HCL	N/A	HNO3						
1	4/30/01	1:20pm	X		MW-3		X									2	2	2	1						
2	4/30/01	1:05pm	X		MW-5		X									2	2	2	1						
3	4/30/01	1:30pm	X		MW-1		X									-	2	-	-						
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE) Chaston B. Vogel	4/30/01	1635	RECEIVED BY: (SIGNATURE) Pam Moore	4/30/01	1636	RELINQUISHED BY: (SIGNATURE) Pam Moore	4/30/01	17:17
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) ☒ Jacksonville ☐ Orlando	DATE	TIME	CUSTODY INTACT ☒ YES ☐ NO	ENCO LOG NO.	REMARKS
[signature]	5/1/01	910		JAX 17303	

APPENDIX E

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. CESQG	Manifest Document No. 40742	2. Page 1 of 1

3. Generator's Name and Mailing Address THE PANTRY # 486
6605 RAEFORD ROAD
FAYETTEVILLE, NC 28304

4. Generator's Phone (910 868-4041

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
CONTAMINANT CONTROL, INC.	NCR000010116	910-424-7443
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
CONTAMINANT CONTROL, INC. 3434 BLACK & DECKER ROAD HOPE MILLS, NC 28348	NCD986173615	910-424-7443

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON DOT/RCRA REGULATED MATERIALS, SOLID (CONTAINS ABSORBENTS/ SOIL/DEBRIS WITH PETROLEUM) (GASOLINE)	014	DM	07000	P
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

11a. CCI JOB # 10-3-3222; PROFILE #10226

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

EMERGENCY RESPONSE CONTACT CCI @ 1-888-624-6555 (24-HOURS)

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Kenneth H. Bass | Signature: Kenneth H. Bass | Month Day Year 04 03 01

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Calvin S. Simpson | Signature: Calvin S. Simpson | Month Day Year 04 03 01

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 waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Charles Kinlaw | Signature: Charles Kinlaw | Month Day Year 04 03 01

ORIGINAL - RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: C E S O G . . . . . | Manifest Document No.: 5 0 7 6 3 | 2. Page 1 of 1

3. Generator's Name and Mailing Address:
THE PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, NC 28304

4. Generator's Phone (910) 868-4041

5. Transporter 1 Company Name: CONTAMINANT CONTROL, INC.

6. US EPA ID Number: N C R 0 0 0 0 1 0 1 1 6

A. Transporter's Phone: 910-424-7443

7. Transporter 2 Company Name:

8. US EPA ID Number:

B. Transporter's Phone:

9. Designated Facility Name and Site Address:
CONTAMINANT CONTROL, INC.
3434 BLACK & DECKER ROAD
HOPE MILLS, NC 28348

10. US EPA ID Number: N C D 9 8 6 1 7 3 6 1 5

C. Facility's Phone: 910-424-7443

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. NON DOT/EPA REGULATED MATERIALS, SOLID, (CONTAINS ABSORBENTS/ SOIL/ DEBRIS WITH PETROLEUM (GASOLINE)	008	DM	08000	P
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above:
11A. CCI JOB #10-3-3319; PROFILE # 10226

E. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information:
EMERGENCY RESPONSE CONTACT CCI @ 1-888-624-6555 (24 HOURS)

GENERATOR

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: Teresa L. Colon | Signature: Teresa L. Colon | Month 05 Day 15 Year 01

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: CHARLES KINLAW | Signature: Charles Kinlaw | Month 05 Day 15 Year 01

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

FACILITY

19. Discrepancy Indication Space:

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: CHARLES L. KINLAW | Signature: Charles L. Kinlaw | Month 05 Day 15 Year 01

ORIGINAL - RETURN TO GENERATOR

SEI
Engineering & Geological Services, P.C.

Comprehensive Site Assessment Report

Site Location:
The Pantry #486
6605 Raeford Road
Fayetteville, North Carolina
Cumberland County

Site Owner:
Joseph H. Gillis, et al
P. O. Box 736
Fayetteville, North Carolina 28302

Prepared for:

The Pantry, Inc.
P. O. Box 1410
Sanford, North Carolina 27330
(919) 774-6700

Project Number: 501430
Facility ID Number: 0-023655
Incident Number: 23062
Site Priority Ranking: High
Reason for Risk Classification: Water supply well located within 1,000 feet of the source area of the release

General Site Information:
Surrounding Land Use – Commercial/Residential/Undeveloped
Latitude/Longitude – N 35° 2' 24" / W 78° 59' 50"
Release Date – March 21, 2001
Estimated Quantity – Unknown
Cause of Release – Underground storage tank system
UST Information – (3) 10,000-gallon gasoline

Prepared by:

NORTH CAROLINA LICENSED SEAL 1891 GEOLOGIST MICHAEL WYNN WORDEN

Michael W. Worden, P.G.
NC Licensed Geologist #1891
SEI Engineering and
Geological Services, P.C.
5100 N. I-85 Service Road, Suite 7A
Charlotte, North Carolina 28206

April 28, 2003

DIVISION OF WATER QUALITY
Certification for the Submittal of a Comprehensive Site Assessment

Responsible Party: The Pantry, Inc.
Contact Person: Ms. Reneé Thomas
Address: P.O. Box 1410
City: Sanford **State:** NC **Zip Code:** 27330

Site Name: The Pantry #486
Address: 6605 Raeford Road
City: Fayetteville **State:** NC **Zip Code:** 28304
Groundwater Incident Number: 23062 **Site Priority Ranking:** High

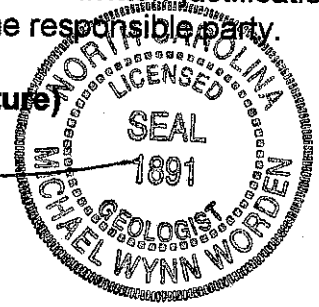
I, Michael W. Worden, a ~~Professional Engineer~~ / Licensed Geologist (circle one) for SEI Engineering and Geological Services, P.C. (firm or company of employment) do hereby certify that the information indicated below is enclosed as part of the required Comprehensive Site Assessment (CSA) and that to the best of my knowledge the data, assessments, conclusions, recommendations, and other associated materials are correct, complete, and accurate.

(Each item must be initialed by the certifying licensed professional)

1. MWW The source of the contamination has been identified. A list of all potential sources of the contamination is attached.
2. MWW Imminent hazards to public health and safety have been identified.
3. MWW Potential receptors and significant exposure pathways have been identified.
4. MWW Geological and hydrogeological features influencing the movement of groundwater have been identified. The chemical and physical character of the contaminants have been identified.
5. X The CSA sufficiently characterizes the cause, significance, and extent of groundwater and soil contamination such that a Corrective Action Plan can be developed.

If any of the above statements have been altered or items not initialed, provide a detailed explanation. Failure to initial any item or to provide written justification for the lack thereof will result in immediate return of the CSA to the responsible party.

(Please Affix Seal and Signature)



GW-100 (csa) 3/17/97

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LIMITATIONS

This report has been prepared under the guidance of a North Carolina Licensed Geologist to meet the requirements of the North Carolina Department of Environment and Natural Resources. The information and conclusions expressed in this report are based upon normal standards of the profession and limited to information available at this time. Chemical analyses of samples associated with this report were performed by a subcontracted, independent, and certified laboratory. All data and parameters have been reviewed for accuracy and, excepting obvious errors, have been accepted as correct. SEI Engineering and Geological Services, P.C. reserves the right to revise estimates of performance as required by changes in the data supplied by Environmental Conservation Laboratories and Environmental Science Corporation.

EXECUTIVE SUMMARY

The Pantry #486 is a retail gasoline and convenience store located at 6605 Raeford Road in Fayetteville, Cumberland County, North Carolina. The site is currently active and contains three 10,000-gallon underground storage tanks (USTs).

The January 2001 statistical inventory reconciliation (SIR) data for this site showed a "fail" for the 10,000-gallon premium gasoline UST. When The Pantry, Inc. received the SIR report in February 2001, they immediately ordered a tank tightness test. The February 26, 2001, tightness test on the premium UST indicated a "pass." The February 2001 SIR data, which was reported in March 2001, indicated an "inconclusive" result for the premium UST, due to the fact that it had been pumped out by The Pantry, Inc. On March 21, 2001, a release was discovered when store personnel found a hole in the bottom of the premium UST near the fill port.

SEI Environmental, Inc. initiated a Limited Site Assessment (LSA) to assess soil and groundwater quality at the site. Soil samples collected during the LSA indicated the presence of free product in the monitoring wells and recovery wells adjacent to the UST area. During the groundwater sampling events, certain petroleum constituents were detected in all of the groundwater monitoring wells located on site at levels greater than the 15A NCAC 2L standards, but less than the Gross Contaminant Levels (GCLs). A Limited Site Assessment Report was submitted by SEI Engineering and Geological Services, P.C. on July 5, 2001.

From March 2001 to February 2002, ten aggressive fluid vapor recovery events conducted on site were successful in removing approximately 20,157 gallons of contaminated groundwater, 2,998.93 pounds of petroleum vapors, and 1,882 gallons of free product.

Due to the presence of water supply wells in the area surrounding the site, the site has been given a priority rank of high risk. In accordance with Division of Waste Management, UST Section guidelines, a Comprehensive Site Assessment (CSA) was initiated by SEI Environmental, Inc. and SEI Engineering and Geological Services, P.C. in order to delineate the free product and groundwater contaminant plume.

Laboratory results indicate that petroleum contaminated soil and groundwater were detected during sampling at the subject site. During the LSA, soil samples collected from around the UST area revealed the presence of free product. Free product was not observed in the soil column of any of soil boring conducted as part of the CSA. Petroleum constituents were detected in certain groundwater monitoring wells located on site at concentrations greater than the 15A NCAC 2L standards, however all concentrations were below the GCLs. During the February 26, 2003, sampling event, free product was detected in six of the thirteen monitoring wells located on and off site. Delineation of the free product and groundwater contaminant plumes was not achieved due to refusal of offsite access from a neighboring property.

SEI Engineering and Geological Services, P.C. recommends that a Corrective Action Plan be developed for this site, including a soil investigation to determine the extent of free product in the soil surrounding the USTs. Additional monitoring wells will be required to the east of the site to fully delineate the free product and groundwater contaminant plumes, and one additional

monitoring well will be required to the west of monitoring well MW-6 to fully delineate the benzene groundwater contaminant plume. One additional type III telescoping well will be required to the south of monitoring well MW-5 to fully determine the vertical extent of the groundwater contaminant plume.

1.0 SITE HISTORY AND SOURCE CHARACTERIZATION

The Pantry #486 is a retail gasoline and convenience store located at 6605 Raeford Road in Fayetteville, Cumberland County, North Carolina. Figure 1 is an excerpt from a United States Geological Survey (USGS) 7.5 minute topographical quadrangle map showing the location of the site, as well as cultural and topographic features. The site is currently active and contains three 10,000-gallon underground storage tanks (USTs). Figure 2 is a site map showing the site features and the UST locations.

The January 2001 statistical inventory reconciliation (SIR) data for this site showed a "fail" for the 10,000-gallon premium gasoline UST. When The Pantry, Inc. received the SIR report in February 2001, they immediately ordered a tank tightness test. The February 26, 2001, tightness test on the premium UST indicated a "pass." The February 2001 SIR data, which was reported in March 2001, indicated an "inconclusive" result for the premium UST, due to the fact that it had been pumped out by The Pantry, Inc. On March 21, 2001, a release was discovered when store personnel found a hole in the bottom of the premium UST near the fill port.

On March 22, 2001, The Pantry, Inc. contracted SEI Environmental, Inc. to investigate the release. This included installing three 4-inch diameter recovery wells and recovering free product via aggressive fluid vapor recovery (AFVR). The four AFVR events were successful in removing approximately 561 gallons of free product, 9,543 gallons of contaminated groundwater, and 786.91 pounds of petroleum vapors. A 20 Day and Free Product Report for the AFVR events was submitted to the NCDENR Division of Waste Management, UST Section on May 2, 2001.

SEI Environmental, Inc. initiated a Phase I Limited Site Assessment (LSA), which included the installation of one type II groundwater monitoring well (MW-1). Due to the fact that free product was observed in the well, SEI Environmental, Inc. did not collect a groundwater sample and went immediately to a Phase II LSA. The Phase II LSA included the installation of three type II groundwater monitoring wells (MW-2 through MW-4), and one type III groundwater monitoring well (MW-5).

Soil samples collected during the LSA indicated the presence of free product in the monitoring wells and recovery wells adjacent to the UST area. During the groundwater sampling events, certain petroleum constituents were detected in all of the groundwater monitoring wells located on site at levels greater than the 15A NCAC 2L standards, but less than the Gross Contaminant Levels (GCLs). A Limited Site Assessment Report was submitted by SEI Engineering and Geological Services, P.C. on July 5, 2001.

From June 2001 through February 2002, six AFVR events conducted on site were successful in removing approximately 10,614 gallons of contaminated groundwater, 2,212.02 pounds of petroleum vapors, and 1,321 gallons of free product. A Free Product Recovery Report was submitted by SEI Engineering and Geological Services, P.C. on March 4, 2002.

A July 12, 2001, Notice of Regulatory Requirements from the Division of Waste Management (DWM), UST section required a Comprehensive Site Assessment (CSA) for this site. In accordance with DWM UST Section guidelines, a CSA was initiated by SEI Environmental, Inc. and SEI Engineering and Geological Services, P.C. in order to delineate the free product and groundwater contaminant plume. This report summarizes the results of the installation of eight monitoring wells on October 15, 2001, and February 26, and March 1, 2002, and groundwater samples collected from site monitoring wells on October 16, 2001, March 4, 2002, and February 26, 2003. A slug test was also performed in order to determine the hydrogeologic conditions at the site.

2.0 POTENTIAL RECEPTORS AND MIGRATION PATHWAYS

2.1 Receptor Information and Risk Characterization

The subject property is currently active, and is zoned planned commercial. The properties to the west, south and east are also zoned planned commercial. US Highway 401 borders the property to the north. The undeveloped property north of US Highway 401 is zoned planned commercial. Properties further to the south, southwest, and southeast of the site are zoned residential. Figure 2 is a site map showing the site features and the UST pit location.

The properties immediately adjacent to the subject property contain businesses, undeveloped land, a shopping center, residences, and a highway. Figure 4 is a surrounding properties map showing the properties within a 500-foot radius of the site. Table B-6 summarizes surrounding property owner information.

A 1,500-foot radius receptor survey was performed. Several potable wells were noted in the surrounding area, the closest of which is located approximately 350 feet south of the UST bed. The City of Fayetteville confirmed that public water is available to the site and to part of the surrounding area, although people are not required to connect to public water. The City of Fayetteville obtains its water from the Cape Fear River and Glenville Lake. Brookwood Water Corporation also provides residential water supply service to several homes in the surrounding area. Brookwood Water Corporation obtains its water from water supply wells, the closest of which is located approximately 1,400 feet northeast of the site. The nearest surface water is a small stream located approximately 650 feet northeast of the site. Figure 3 is a vicinity map showing the properties within a 1,500-foot radius of the site.

To date, there are no state recognized wellhead protection areas as defined in 42 USC 300h-7(e) within a 1,500 foot radius of the site. The site is located in the Middendorf Formation of the Coastal Plain Physiographic Province. According to the National Water Summary (1987), the site is located in an area where there is recharge to the crystalline rock aquifer, which is a semiconfined to confined aquifer that may be used as a source of drinking water. Subsurface structures with potential to contain explosive vapors were not located near the release area.

2.2 Migration Pathways

Water, underground electric, telephone, and gas lines are located on site. Figure 2 is a site map identifying underground utility lines. Backfill used in utility line trenches commonly has a higher conductivity than the surrounding native soil, therefore, utility lines may present potential migration pathways for petroleum vapors and impacted groundwater. Typically, underground utilities are installed to an average depth of two to five feet bls.

3.0 GEOLOGY AND SOIL SAMPLING

3.1 Regional Geology

The site is located within the sands of the Middendorf Formation of the Coastal Plain Physiographic Province. According to the Geologic Map of North Carolina (Brown, et al., 1985), the formation is characterized by sand, sandstone, and mudstone that is gray to pale gray with an orange cast. Clay balls and iron-cemented concretions are common. Bedding is laterally discontinuous, with cross-bedding common.

3.2 Site Geology and Soil Sampling

As reported in the LSA, on March 22 and 23, 2001, three soil borings (MW-1 through MW-3) were advanced to the northeast and south of the UST bed to a depth of 30 feet bls. On April 26 and 27, 2001, two soil borings were advanced at the site, MW-4 to a total depth of 30 bls, and MW-5 to a depth of 45.5 feet bls. Due to the presence of free product in the soil, soil samples were not collected. Free product was observed in the soil at approximately sixteen feet bls in monitoring wells MW-1, MW-2, MW-4, and MW-5. Groundwater was encountered at approximately nineteen feet bls. The soil encountered while performing the soil borings was primarily a yellow-brown to tan-gray silty sand and gray-tan clayey sand.

On October 15, 2001, five soil borings (MW-6 through MW-10) were advanced on and off the site in order to delineate the contaminated groundwater. Soil borings MW-6 and MW-9 were advanced to a total depth of 30 feet bls. Soil borings MW-7 and MW-8 were advanced to a total depth of 25 feet bls. Soil boring MW-10 was advanced to a total depth of 28 feet bls. Free product was not observed as part of the soil column in any of the soil borings. The soil encountered while performing the soil borings was primarily red-brown to tan-brown silty to sandy clay and yellow-brown to tan-brown silty sand.

On February 26, and March 1, 2002, three soil borings (MW-11 through MW-13) were advanced on and off the site in order to delineate the contaminated groundwater. Soil borings MW-11 through MW-13 were advanced to a total depth of 30 feet bls. Free product was not observed as part of the soil column in any of the soil borings. The soil encountered while performing the soil

borings was primarily red-brown to tan-brown silty to sandy clay and yellow-brown to tan-brown silty sand.

The soil boring locations are shown on Figure 2. Figure 5 shows the lines of geologic cross section, and generalized geologic cross sections through the site are included as Figures 6 and 7. Soil Boring Logs are included in Appendix A.

During drilling activities, suspected contaminated soil was placed into drums and left on site. Soil Solutions, Inc. removed one drum of soil on January 2, 2002, and three drums of soil on March 5, 2002, and transported the drums to its facility in Winston Salem, North Carolina, for proper treatment and disposal. A copy of the Certificates for Acceptance for the drums is included in Appendix B.

4.0 MONITORING WELL CONSTRUCTION

The well construction details for monitoring wells MW-1 through MW-5 are included in the LSA. On October 15, 2001, five type II monitoring wells (MW-6 through MW-10) were installed. Monitoring wells MW-6 and MW-9 were installed to a depth of 30 feet bls, and were completed with ten feet of 2 inch Schedule 40 PVC casing and twenty feet of 0.010 inch slot PVC screen. Monitoring wells MW-7 and MW-8 were installed to a depth of 25 feet bls, and were completed with ten feet of 2 inch Schedule 40 PVC casing and fifteen feet of 0.010 inch slot PVC screen. Monitoring well MW-10 was installed to a depth of 28 feet bls, and was completed with eight feet of 2 inch Schedule 40 PVC casing and twenty feet of 0.010 inch slot PVC screen.

On February 26, 2002, two type II monitoring wells (MW-11 and MW-13) were installed to a depth of 30 feet bls, and were completed with ten feet of 2 inch Schedule 40 PVC casing and twenty feet of 0.010 inch slot PVC screen. On March 1, 2002, one type II monitoring well (MW-12) was installed to a depth of 30 feet bls, and was completed with ten feet of 2 inch Schedule 40 PVC casing and twenty feet of 0.010 inch slot PVC screen. The locations of the monitoring wells are noted on Figure 2.

The annulus of each well was filled with a sand filter pack to two feet above the top of the screened interval. A bentonite seal was placed above the sand filter pack and hydrated with water. The remaining well bore was filled with grout to the surface. Monitoring wells MW-6 through 9, MW-11, and MW-12 were completed flush to grade with a locking cap, watertight seal, and a bolt-down manhole. Monitoring wells MW-10 and MW-13 were completed with a locking cap, watertight seal, and an above-grade manway. A Monitoring Well Construction Summary is presented as Table B-7. Well Construction Records are presented in Appendix A.

5.0 GROUNDWATER SAMPLING AND HYDROGEOLOGY

5.1 Groundwater Sampling

Each monitoring well on site was gauged prior to each sampling event with an electronic oil/water interface probe to measure depth to water and to detect any free product. On October 16, 2001, monitoring wells MW-6 through MW-10 were sampled. On March 4, 2002, monitoring wells MW-12 and MW-13 were sampled. Monitoring well MW-11 was not sampled on March 4, 2002, due to the presence of free product. On February 26, 2003, monitoring wells MW-5 through MW-8, MW-10, MW-12, and MW-13 were sampled. Monitoring wells MW-1 through MW-4, MW-9, and MW-11 were not sampled on February 26, 2003, due to the presence of free product. Historical groundwater elevation data are included in Table B-8.

The monitoring wells were purged prior to sampling by removing a minimum of three well volumes of water. Groundwater samples were collected after the wells were allowed to recover. The samples were collected using new, disposable Teflon® bailers and placed in laboratory supplied, clean containers. The groundwater samples collected on October 16, 2001, and March 4, 2002, were maintained at 4°C and submitted to Environmental Conservation Laboratories (ENCO) in Cary, North Carolina, under proper chain-of-custody procedures, for analysis. The groundwater samples collected on February 26, 2003, were maintained at 4°C and submitted to Environmental Science Corporation (ESC) in Mt. Juliet, Tennessee, under proper chain-of-custody procedures, for analysis. The groundwater samples were analyzed by EPA methods 601 and 602 (extended to detect IPE and MTBE), MADEP method VPH, and standard method 3030c for lead. In addition, the initial groundwater samples from MW-6 through MW-10, MW-12, and MW-13 were analyzed by EPA method 504.1 for EDB.

5.2 Site Hydrogeology

Figures 8 and 9 are the groundwater elevation contour maps for the February 26, 2003, and April 16, 2003, gauging events. They consistently show groundwater flowing toward the east. Figure 10 is a free product thickness map for February 26, 2003, gauging event.

Slug tests were performed on monitoring wells MW-6 and MW-9 on April 16, 2003. The

hydraulic conductivity (K) value at the site ranged from an average of 6.362 feet/day in MW-9 to an average of 11.64 feet/day in MW-6. Groundwater flow velocity ($v=Ki/n$) was estimated using this range of hydraulic conductivity values, the range of hydraulic gradient (i) values on the property estimated from the water table elevation contour map (Figure 8), and assumed an effective porosity (n) of 0.2, which is a typical value for sand. Using combinations of these parameters, the shallow groundwater flow velocity at the site appears to range from 0.0945 feet/day to 0.173 feet/day. Slug Test Results are presented in Appendix C.

6.0 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were collected from monitoring wells MW-6 through MW-10 on October 16, 2001, from monitoring wells MW-12 and MW-13 on March 4, 2002, and from monitoring wells MW-5 through MW-8, MW-10, MW-12, and MW-13 on February 26, 2003. The samples were analyzed by EPA methods 601 and 602 (extended to detect IPE and MTBE), MADEP method VPH, and standard method 3030c for lead. The initial groundwater samples collected from MW-6 through MW-10, MW-12, and MW-13 were also analyzed by EPA method 504.1 for EDB.

Petroleum hydrocarbons were detected at concentrations above the 15A NCAC 2L groundwater standards in three of the seven monitoring wells (MW-5, MW-6, and MW-10) sampled on February 26, 2003. A maximum concentration of benzene (410 micrograms per liter (µg/L)) was detected in monitoring well MW-10. Maximum concentrations of MTBE (1,400 µg/L), aliphatics in the C5-C8 range (4,000 µg/L), and aromatics in the C9-C10 range (370 µg/L) were detected in monitoring well MW-5. Ethylbenzene, toluene, total xylenes, IPE, lead, and aliphatics in the C9-C12 range were not detected in the groundwater samples at concentrations above the 15A NCAC 2L standards. The groundwater sample laboratory results are summarized in Tables B-4, and a copy of the laboratory reports and chain-of-custody forms is included in Appendix D.

Hydrocarbon concentration isopleths for the February 26, 2003, sampling event are presented as Figures 11 through 16. Figures 17 and 18 present the vertical benzene concentration isopleths.

Delineation of the free product and groundwater contaminant plumes was not achieved due to refusal of offsite access from a neighboring property. Additional monitoring wells will be required to the east of monitoring well MW-11 to fully delineate the free product and groundwater contaminant plumes, and an additional monitoring well will be required to the west of monitoring well MW-6 to fully delineate the benzene contaminant plume. One additional type III telescoping well will be required to the south of monitoring well MW-5 to fully determine the vertical extent of the groundwater contaminant plume.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The subject property is zoned planned commercial and potential future use indicates that it will remain zoned planned commercial. A 1,500-foot radius potable well search was performed, which revealed several potable wells in the surrounding area, the closest of which is located approximately 350 feet south of the UST bed. The City of Fayetteville confirmed that public water is available to the site and to part of the surrounding area, although people are not required to connect to public water. The City of Fayetteville obtains its water from the Cape Fear River and Glenville Lake. Brookwood Water Corporation provides residential water supply service to several homes in the surrounding area. Brookwood Water Corporation obtains its water from water supply wells, the closest of which is located approximately 1,400 feet northeast of the site. The nearest surface water is a small stream located approximately 650 feet northeast of the site.

Laboratory results indicate that petroleum contaminated soil and groundwater were detected during sampling at the subject site. During the LSA, soil samples collected from around the UST area revealed the presence of free product. Free product was not observed in the soil column of any of soil boring conducted as part of the CSA. Petroleum constituents were detected in certain groundwater monitoring wells located on site at concentrations greater than the 15A NCAC 2L standards, however all concentrations were below the GCLs. During the February 26, 2003, sampling event, free product was detected in six of the thirteen monitoring wells located on and off site.

Due to the presence of water supply wells in the area surrounding the site, the site has been given a priority rank of high risk. SEI Engineering and Geological Services, P.C. recommends that a Corrective Action Plan be developed for this site, including a soil investigation to determine the extent of free product in the soil surrounding the USTs. Delineation of the free product and groundwater contaminant plumes was not achieved due to refusal of offsite access from a neighboring property.

Additional monitoring wells will be required to the east of the site to fully delineate the free product and groundwater contaminant plumes, and one additional monitoring well will be required

to the west of monitoring well MW-6 to fully delineate the benzene groundwater contaminant plume. One additional type III telescoping well will be required to the south of monitoring well MW-5 to fully determine the vertical extent of the groundwater contaminant plume.

8.0 REFERENCES

Brown, P.M. et al., "Geologic Map of North Carolina," Scale 1:500,000, North Carolina Geological Survey, 1985.

Heath, R.C., "Basic Elements of Ground-Water Hydrology with Reference to Conditions in North Carolina," U.S. Geological Survey Water-Resources Investigations Open-File Report 80-44, Raleigh, North Carolina, 1980.

NCDENR Division of Water Quality, Groundwater Section, "Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater, Volume II: Petroleum Underground Storage Tanks," January 2, 1998.

North Carolina Administrative Code (NCAC) Title 15A Subchapter 2L, "Classifications and Water Quality Standards Applicable to the Groundwater of North Carolina," November 1993.

SEI Engineering and Geological Services, P.C., "Free Product Recovery Report," March 4, 2002.

SEI Engineering and Geological Services, P.C., "Limited Site Assessment Report," July 5, 2001.

SEI Engineering and Geological Services, P.C., "20 Day and Free Product Recovery Report," May 2, 2001.

U.S. Geological Survey Water-Supply Paper 2275, "North Carolina Ground-Water Resources."

TABLE B-1

Site History
UST System Information

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

UST ID Number	Product	Capacity (gallons)	Date Installed	Permanent Closure Date Or Currently in Use	Was Release Associated With UST System? (Y/N)
1	Gasoline	10,000	05/06/1986	Currently in Use	Y
2	Gasoline	10,000	05/06/1986	Currently in Use	Y
3	Gasoline	10,000	05/06/1986	Currently in Use	Y

TABLE B-2

Site History
UST Owner/Operator Information

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

UST ID Number	Dates of Ownership / Operation	Name of Owner or Operator	Owner or Operator?
1	05/06/86 to Present	The Pantry, Inc.	Both
		Address	**Telephone Number**
		Post Office Box 1410 Sanford, North Carolina 27330	(919) 774-6700
UST ID Number	**Dates of Ownership / Operation**	**Name of Owner or Operator**	**Owner or Operator?**
2	05/06/86 to Present	The Pantry, Inc.	Both
		Address	**Telephone Number**
		Post Office Box 1410 Sanford, North Carolina 27330	(919) 774-6700
UST ID Number	**Dates of Ownership / Operation**	**Name of Owner or Operator**	**Owner or Operator?**
3	05/06/86 to Present	The Pantry, Inc.	Both
		Address	**Telephone Number**
		Post Office Box 1410 Sanford, North Carolina 27330	(919) 774-6700

TABLE B-3

Soil Sample Analytical Results
from Limited Site Assessment

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Sample Location	Sample Depth (feet)	Date Sampled	OVA (ppm)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	C5-C8 Aliphatics (µg/kg)	C9-C12 Aliphatics (µg/kg)	C9-C10 Aromatics (µg/kg)
MW-1	--	03/22/01	Free Product Present								
RW-1	--	03/23/01	Free Product Present								
RW-2	--	03/23/01	Free Product Present								
RW-3	--	03/23/01	Free Product Present								
NCDWM Soil-to-Groundwater MSCCs				**5.6**	**7,000**	**240**	**5,000**	**920**	**72,000**	**3,255,000**	**34,000**
NCDWM Residential MSCCs				**22,000**	**3,200,000**	**1,560,000**	**32,000,000**	**156,000**	**939,000**	**9,386,000**	**469,000**

ppm - parts per million
µg/kg - micrograms per kilogram
BDL - Below detection limits
Bold denotes concentrations above the Soil-to-Groundwater Maximum Soil Contaminant Concentrations (MSCC)

TABLE B-4

Groundwater Analytical Results

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Sample Location	Date Sampled	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	IPE (µg/L)	Lead (µg/L)	EDB (µg/L)	C5-C8 Aliphatics (µg/L)	C9-C12 Aliphatics (µg/L)	C9-C10 Aromatics (µg/L)
MW-1	04/30/01	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-2	04/30/01	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-3	04/30/01	**4,700**	**2,400**	**24,000**	**14,000**	**1,900**	<1,000	<11	<0.020	**38,000**	**18,000**	**9,800**
	02/26/03	Not Sampled – Free Product Present										
MW-4	04/30/01	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-5	04/30/01	**1.2**	1.1	5.8	32.9	78	3.7	<11	<0.020	260	49	54
	02/26/03	**120**	11	50	160	**1,400**	<50	<5.0	NA	**4,000**	620	**370**
MW-6	10/16/01	<1.0	<1.0	2.0	4.3	<1.0	<1.0	**100**	<0.020	<40	<20	29
	02/26/03	**4.3**	<1.0	<5.0	12	<5.0	<5.0	5.9	NA	**1,200**	<100	<100
MW-7	10/16/01	**2.1**	2.2	20	10.0	<1.0	<1.0	<11	<0.020	50	<20	<20
	02/26/03	<1.0	<1.0	<5.0	<3.0	<5.0	<5.0	7.1	NA	<100	<100	<100
MW-8	10/16/01	**7.0**	3.6	37	20.9	1.8	<1.0	<11	<0.020	78	<20	36
	02/26/03	<1.0	<1.0	<5.0	3.1	<5.0	<5.0	<5.0	NA	<100	<100	<100

TABLE B-4 (Continued)

Groundwater Analytical Results

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Sample Location	Date Sampled	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	IPE (µg/L)	Lead (µg/L)	EDB (µg/L)	C5-C8 Aliphatics (µg/L)	C9-C12 Aliphatics (µg/L)	C9-C10 Aromatics (µg/L)
MW-9	10/16/01	**5,100**	**1,900**	**25,000**	**9,800**	<200	<200	<11	<0.020	**37,000**	**13,000**	**5,400**
	02/26/03	Not Sampled – Free Product Present										
MW-10	10/16/01	**68**	4.1	150	70	<1.0	<1.0	<11	<0.020	**680**	73	37
	02/26/03	**410**	20	600	240	**450**	<5.0	5.4	NA	**2,700**	520	100
MW-11	03/04/02	Not Sampled – Free Product Present										
	02/26/03	Not Sampled – Free Product Present										
MW-12	03/04/02	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<11	<0.020	<40	<20	<20
	02/26/03	<1.0	<1.0	<5.0	<3.0	<5.0	<5.0	<5.0	NA	<100	<100	<100
MW-13	03/04/02	<1.0	<1.0	1.3	<3.0	<1.0	<1.0	<11	<0.020	<40	<20	22
	02/26/03	<1.0	<1.0	<5.0	<3.0	<5.0	<5.0	<5.0	NA	<100	<100	<100
2L Standards		**1**	**29**	**1,000**	**530**	**200**	**70**	**15**	**0.0004**	**420**	**4,200**	**210**
10 x 2L Standards		**10**	**290**	**10,000**	**5,300**	**2,000**	**700**	**150**	**0.004**	**4,200**	**42,000**	**2,100**
GCLs		**5,000**	**29,000**	**257,500**	**87,500**	**200,000**	**70,000**	**15,000**	**NE**	**NE**	**NE**	**NE**

µg/L - micrograms per liter
Bold denotes concentration is greater than the 15A NCAC 2L Standard
NE – Not established
NA – Not analyzed
GCL - Gross Contamination Level

TABLE B-5A

Water Supply Well Information

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well #	Well Owner	Physical Address	Phone Number	Well Use	Well Depth (feet bls)	Type of Well	Well Casing Depth (feet bls)	Well Screen Interval (feet bls)	Distance from source area of release (feet)	Cardinal Direction from release
WW-1	Mary Morton Griffin Heirs 1104 Strickland Bridge Road Fayetteville, NC 28304	880 Strickland Bridge Road Fayetteville, NC 28304	Unk	Potable	Unk	Unk	Unk	Unk	350	S
WW-2	Brookwood Water Corporation 5948 Fisher Road, Ste. 101 Fayetteville, NC 28304	Jet Circle	(910) 867-4486	Potable	Unk	Unk	Unk	Unk	1,400	NE
WW-3	Brookwood Water Corporation 5948 Fisher Road, Ste. 101 Fayetteville, NC 28304	Bostian Drive	(910) 867-4486	Potable	Unk	Unk	Unk	Unk	1,700	S

Unk – Unknown Information

TABLE B-5B

Water Supply Well Analytical Results from Limited Site Assessment

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Sample Location	Date Sampled	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	IPE (µg/L)
WW-1	04/30/01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2L Standards		**1**	**29**	**1,000**	**530**	**200**	**70**
10 x 2L Standards		**10**	**290**	**10,000**	**5,300**	**2,000**	**700**
GCLs		**5,000**	**29,000**	**257,500**	**87,500**	**200,000**	**70,000**

µg/L - micrograms per liter
Bold denotes concentration is greater than the 15A NCAC 2L Standard
NE – Not established
GCL - Gross Contamination Level

TABLE B-6

Property Owners/Occupants The Pantry #486 6605 Raeford Road Fayetteville, Cumberland, County, North Carolina Facility ID Number: 0-023655 Incident Number: 23062 SEI Project Number: 501430			
Map	**Property Owner**	**Mailing Address**	**Tenant**
1	Sharlene R. Williams	PO Box 53646 Fayetteville, NC 28305	Undeveloped Property
2,3,4	William H. Elliot, Jr.	P O Box 9267 Fayetteville, NC 28311-7696	Shopping Center
5	Helen D. Autry	PO Box 41526 Fayetteville, NC 28309	Residence/Business
6	In Kyung Song	874 Strickland Bridge Rd. Fayetteville, NC 28304	Residence
7	Joseph H. Gillis Betty H. Gillis James D. Gillis	PO Box 736 Fayetteville, NC 28302	Site Undeveloped Property

TABLE B-7

Monitoring Well Construction Summary

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Monitoring Well	Date Installed	Total Depth (feet bls)	Screen Interval (feet bls)	Date Abandoned
MW-1	03/22/01	30	10-30	NA
MW-2	03/23/01	30	10-30	NA
MW-3	03/23/01	30	10-30	NA
MW-4	04/26/01	30	10-30	NA
MW-5	04/26-27/01	45.5	41.1-45.5	NA
MW-6	10/15/01	30	10-30	NA
MW-7	10/15/01	25	10-25	NA
MW-8	10/15/01	25	10-25	NA
MW-9	10/15/01	30	10-30	NA
MW-10	10/15/01	28	8-28	NA
MW-11	02/26/02	30	10-30	NA
MW-12	03/01/02	30	10-30	NA
MW-13	02/26/02	30	10-30	NA
RW-1	03/23/01	30	10-30	NA
RW-2	03/23/01	30	10-30	NA
RW-3	03/23/01	30	10-30	NA

NA – Not applicable

TABLE B-8

Historical Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well Location	Sample Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
MW-1	03/23/2001	496.98	16.55	19.70	479.80
	03/27/2001		16.61	19.58	479.78
	04/03/2001		16.54	19.25	479.90
	04/06/2001		16.54	19.25	479.90
	04/10/2001		16.51	19.11	479.95
	04/12/2001		16.55	19.10	479.92
	04/17/2001		16.52	19.08	479.95
	04/30/2001		16.52	18.87	479.99
	06/15/2001		16.85	19.04	479.69
	06/22/2001		16.87	19.21	479.64
	10/09/2001		17.64	19.58	478.95
	10/16/2001		17.62	19.66	478.95
	11/15/2001		17.90	19.84	478.69
	11/30/2001		17.96	19.82	478.65
	12/12/2001		18.08	19.88	478.54
	12/27/2001		18.12	19.93	478.50
	01/10/2002		18.16	19.88	478.48
	01/22/2002		18.20	19.81	478.46
	02/07/2002		18.19	19.74	478.48
	02/21/2002		18.17	19.68	478.51
	05/23/2002		18.18	19.55	478.53
	02/26/2003		17.92	18.51	478.94
	04/16/2003		16.65	16.79	480.30
MW-2	03/23/2001	498.65	17.91	22.14	479.89
	03/27/2001		18.09	21.68	479.84
	04/03/2001		18.02	21.27	479.98

TABLE B-8 (continued)

Historical Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well Location	Sample Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
MW-2 (continued)	04/06/2001	498.65	18.00	21.15	480.02
	04/10/2001		18.00	21.05	480.04
	04/12/2001		18.02	21.00	480.03
	04/17/2001		18.02	20.92	480.05
	04/30/2001		18.02	20.71	480.09
	06/15/2001		18.44	20.38	479.82
	06/22/2001		18.48	20.71	479.72
	10/09/2001		19.26	21.05	479.03
	10/16/2001		19.25	21.09	479.03
	11/15/2001		19.50	21.34	478.78
	11/30/2001		19.58	21.35	478.72
	12/12/2001		19.66	21.42	478.64
	12/27/2001		19.75	21.45	478.56
	01/10/2002		19.76	21.42	478.56
	01/22/2002		19.85	21.34	478.50
	02/07/2002		19.78	21.32	478.56
	02/21/2002		19.80	21.20	478.57
	05/23/2002		19.80	21.08	478.59
	02/26/2003		19.50	20.32	478.99
	04/16/2003		17.81	19.69	480.46
MW-3	03/23/2001	496.65	--	17.04	493.24
	03/27/2001		--	17.08	493.23
	04/03/2001		--	16.94	493.26
	04/06/2001		--	16.91	493.27
	04/10/2001		--	16.89	493.27
	04/12/2001		--	16.89	493.27
	04/17/2001		--	16.87	493.28

TABLE B-8 (continued)

Historical Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well Location	Sample Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
MW-3 (continued)	04/30/2001	496.65	--	16.85	493.28
	06/15/2001		17.12	17.15	479.52
	06/22/2001		17.14	17.16	479.51
	10/09/2001		17.75	18.13	478.82
	10/16/2001		17.75	18.15	478.82
	11/15/2001		17.98	18.45	478.58
	11/30/2001		18.03	18.46	478.53
	12/12/2001		18.07	18.54	478.49
	12/27/2001		18.18	18.81	478.34
	01/10/2002		18.17	18.57	478.40
	01/22/2002		18.17	18.61	478.39
	02/07/2002		18.18	18.56	478.39
	02/21/2002		18.15	18.51	478.43
	05/23/2002		18.07	18.71	478.45
	02/26/2003		17.61	18.16	478.93
	04/16/2003		--	16.35	480.30
MW-4	04/30/2001	499.26	18.70	20.07	480.29
	06/15/2001		19.05	21.17	479.79
	06/22/2001		19.10	21.10	479.76
	10/09/2001		19.87	21.61	479.04
	10/16/2001		19.85	21.68	479.04
	11/15/2001		20.13	21.89	478.78
	11/30/2001		20.20	21.88	478.72
	12/12/2001		20.29	21.92	478.64
	12/27/2001		20.37	22.04	478.56
	01/10/2002		20.39	21.93	478.56
	01/22/2002		20.45	21.91	478.52

TABLE B-8 (continued)

Historical Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well Location	Sample Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
MW-4 (continued)	02/07/2002	499.26	20.40	21.79	478.58
	02/21/2002		20.42	21.65	478.59
	05/23/2002		20.43	20.45	478.83
	02/26/2003		20.05	20.65	479.09
	04/16/2003		18.57	19.68	480.47
MW-5	04/30/2001	496.88	--	17.10	479.78
	05/23/2002		--	18.44	478.44
	02/26/2003		--	18.00	478.88
	04/16/2003		--	16.60	480.28
MW-6	05/23/2002	500.12	--	21.35	478.77
	02/26/2003		--	20.92	479.20
	04/16/2003		--	19.48	480.64
MW-7	02/26/2003	497.28	--	18.25	479.03
	04/16/2003		--	16.86	480.42
MW-8	02/26/2003	495.10	--	16.45	478.65
	04/16/2003		--	15.17	479.93
MW-9	05/23/2002	499.74	--	21.05	478.69
	02/26/2003		20.60	20.63	479.13
	04/16/2003		--	19.15	480.59
MW-10	05/23/2002	503.46	--	24.93	478.53
	02/26/2003		--	24.50	478.96
	04/16/2003		--	23.05	480.41
MW-11	05/23/2002	496.10	17.40	19.30	478.32
	02/26/2003		17.15	18.16	478.75
	04/16/2003		15.74	16.99	480.11

TABLE B-8 (continued)

Historical Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well Location	Sample Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
MW-12	02/26/2003	498.60	--	19.36	479.24
	04/16/2003		--	17.86	480.74
MW-13	02/26/2003	506.49	--	27.48	479.01
	04/16/2003		--	26.00	480.49
RW-1	03/23/2001	497.67	17.17	20.46	479.84
	03/27/2001		17.20	20.68	479.77
	04/03/2001		17.17	20.16	479.90
	04/06/2001		16.74	19.55	480.37
	04/10/2001		17.15	19.99	479.95
	04/12/2001		17.20	19.86	479.94
	04/17/2001		17.16	19.82	479.98
	04/30/2001		17.18	19.63	480.00
	06/15/2001		17.51	19.85	479.69
	06/22/2001		17.55	19.88	479.65
	10/09/2001		18.32	20.22	478.97
	10/16/2001		18.30	20.25	478.98
	11/15/2001		18.57	20.48	478.72
	11/30/2001		18.64	20.44	478.67
	12/12/2001		18.75	20.50	478.57
	12/27/2001		18.82	20.58	478.50
	01/10/2002		18.83	20.52	478.50
	01/22/2002		18.90	20.45	478.46
	02/07/2002		18.84	20.40	478.52
	02/21/2002		18.86	20.33	478.52
	05/23/2002		18.86	20.21	478.54
	02/26/2003		18.61	19.10	478.96

TABLE B-8 (continued)

Historical Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well Location	Sample Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
RW-2	03/23/2001	498.14	17.54	21.10	479.89
	03/27/2001		17.64	21.04	479.82
	04/03/2001		17.59	20.63	479.94
	04/06/2001		17.59	20.50	479.97
	04/10/2001		17.58	20.44	479.99
	04/12/2001		17.62	20.33	479.98
	04/17/2001		17.60	20.28	480.00
	04/30/2001		17.63	20.05	480.03
	06/15/2001		17.97	20.27	479.71
	06/22/2001		18.00	20.27	479.69
	10/09/2001		18.76	20.66	479.00
	10/16/2001		18.76	20.69	478.99
	11/15/2001		19.03	20.89	478.74
	11/30/2001		19.09	20.90	478.69
	12/12/2001		19.20	20.90	478.60
	12/27/2001		19.28	21.00	478.52
	01/10/2002		19.30	20.95	478.51
	01/22/2002		19.35	20.88	478.48
	02/07/2002		19.33	20.82	478.51
	02/21/2002		19.32	20.74	478.54
	05/23/2002		19.33	20.68	478.54
	02/26/2003		19.04	19.70	478.97
RW-3	03/23/2001	497.22	16.68	20.15	479.85
	03/27/2001		16.79	20.06	479.78
	04/03/2001		16.75	19.67	479.89
	04/06/2001		17.17	20.04	479.48
	04/10/2001		16.72	19.52	479.94

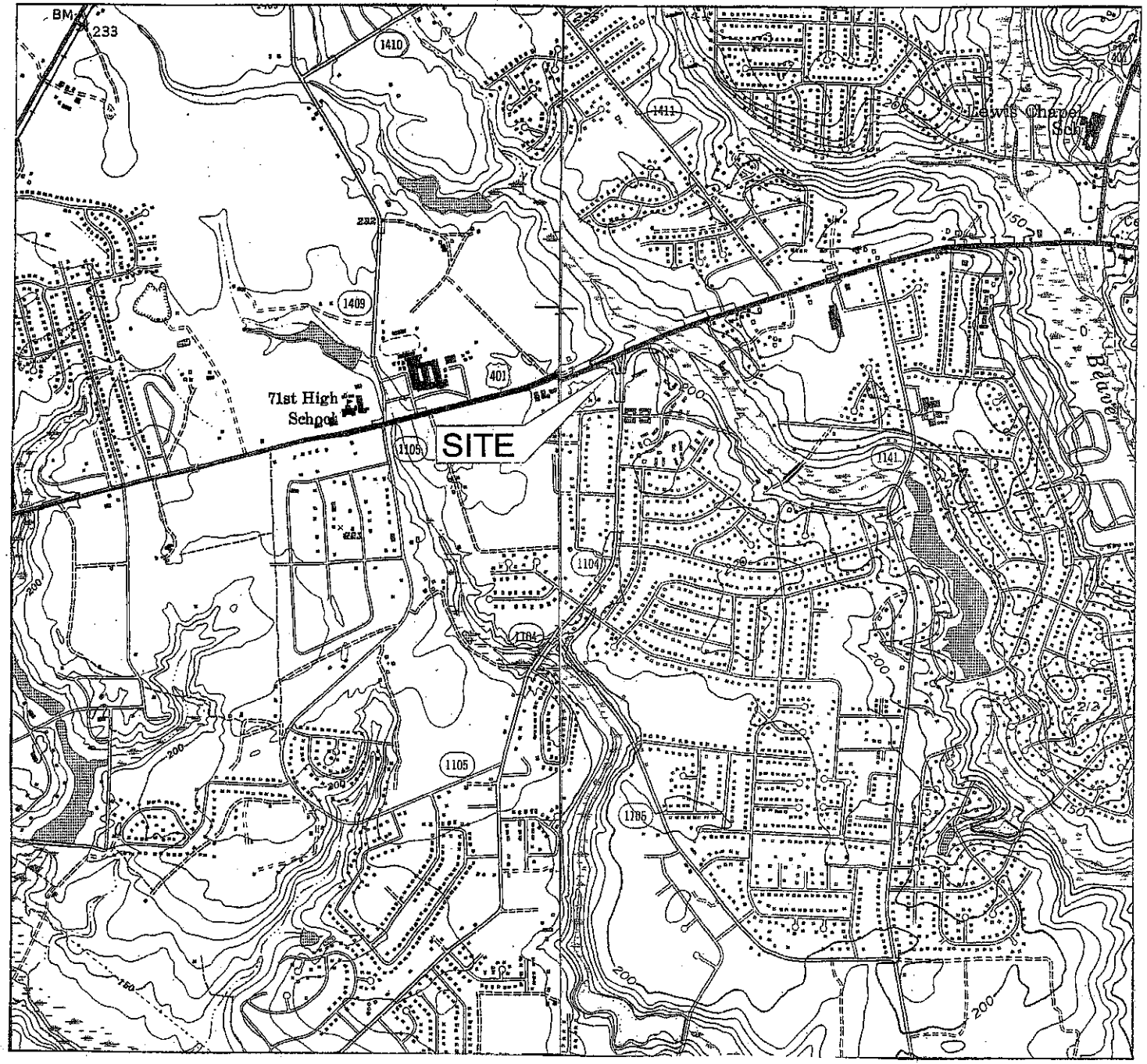
TABLE B-8 (continued)

Historical Groundwater Elevation Data

The Pantry #486
6605 Raeford Road
Fayetteville, Cumberland, County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062
SEI Project Number: 501430

Well Location	Sample Date	Top of Casing Elevation (feet)	Depth to Product (feet)	Depth to Groundwater (feet)	Groundwater Elevation* (feet)
RW-3 (continued)	04/12/2001	497.22	16.77	19.39	479.93
	04/17/2001		16.73	19.36	479.96
	04/30/2001		16.75	19.10	480.00
	06/15/2001		17.08	19.42	479.67
	06/22/2001		17.10	19.42	479.66
	10/09/2001		17.88	19.79	478.96
	10/16/2001		17.86	19.88	478.96
	11/15/2001		18.11	20.03	478.73
	11/30/2001		18.20	20.02	478.66
	12/12/2001		18.32	20.09	478.55
	12/27/2001		18.39	21.13	478.28
	01/10/2002		18.40	20.08	478.48
	01/22/2002		18.45	19.88	478.48
	02/07/2002		18.45	19.98	478.46
	02/21/2002		18.42	19.88	478.51
	05/23/2002		18.42	19.74	478.54
	02/26/2003		18.17	18.80	478.92

Top of casing elevations based on a survey by Chas. H. Sells, Inc.
*Groundwater Elevation = [(Top of Casing Elevation) - (DTW)] + (0.8*Product Thickness) ---- where applicable



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

NORTH

N. C.

QUADRANGLE LOCATION

CONTOUR INTERVAL 10 FEET

CLIFDALE, N. C.
SE/4 CLIFDALE 15' QUADRANGLE
N3500—W7900/7.5

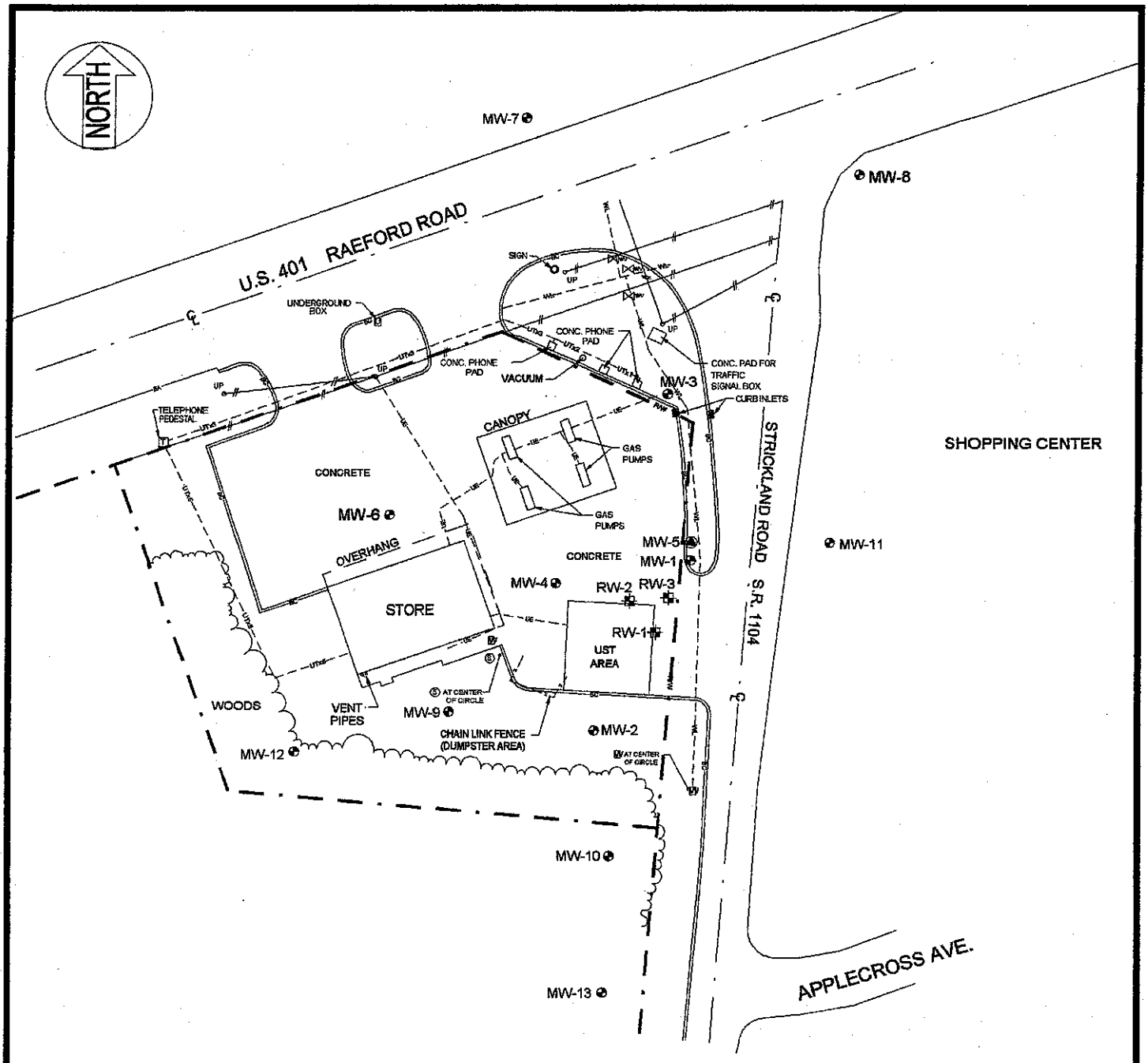
1948
PHOTOREVISED 1982
DMA 5154 II SE—SERIES V842

FAYETTEVILLE, N. C.
SW/4 FAYETTEVILLE 15' QUADRANGLE
35078-A8-TF-024

1957
PHOTOREVISED 1987
DMA 5254 III SW—SERIES V842

SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 1: USGS QUADRANGLE MAP
THE PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, NC



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP — UTILITY POLE
- WATER METER
- WATER VALVE
- (S) — SANITARY MANHOLE
- OVERHEAD ELECTRIC LINE
- ----UE---- UNDERGROUND ELECTRIC LINE
- ----UT---- UNDERGROUND TELEPHONE LINE
- ----WL---- WATER LINE

0 30 60 FT.

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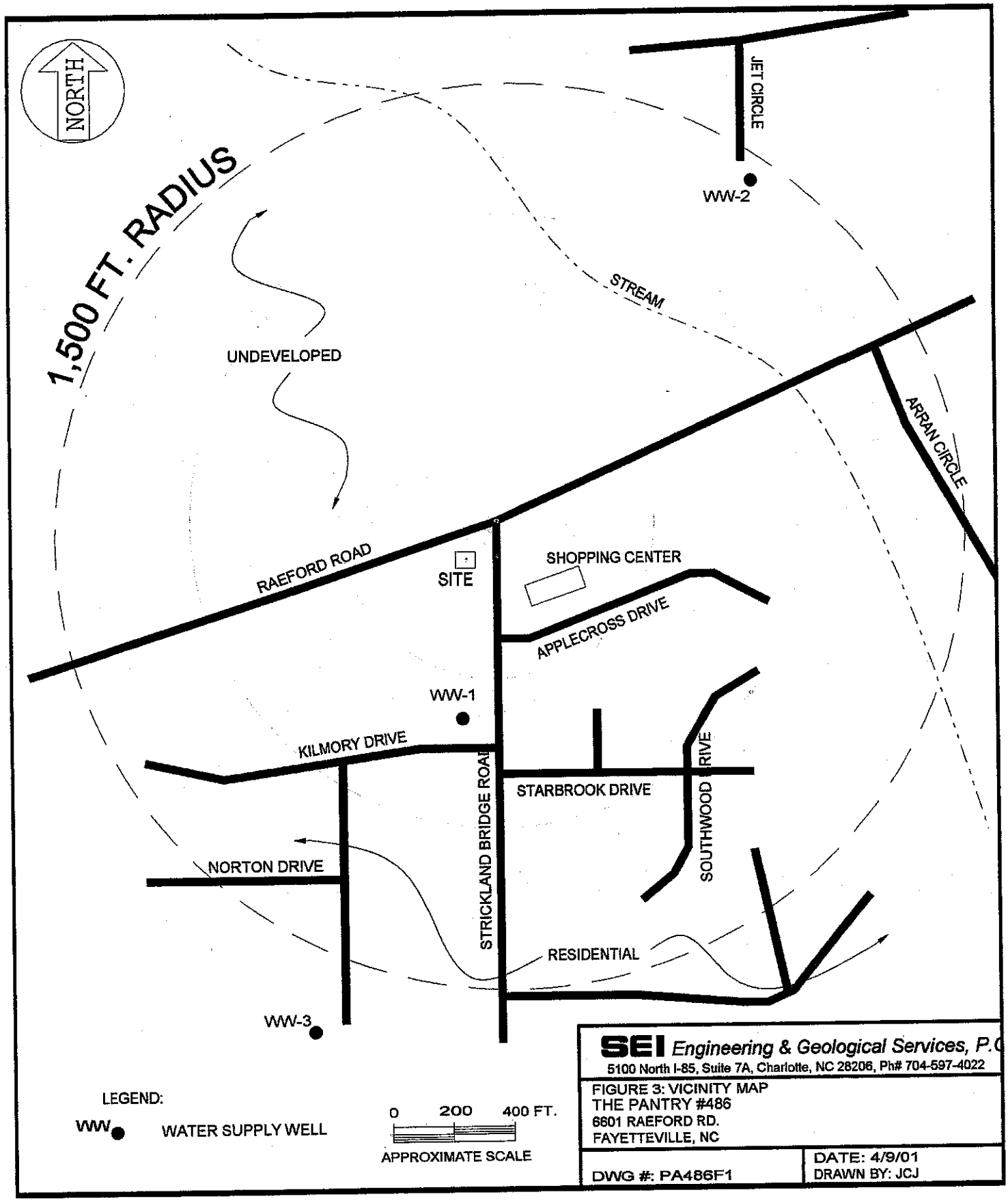
FIGURE 2: SITE MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430	DATE: 4/25/03
DWG #PA4862C	DRAWN BY: JCJ

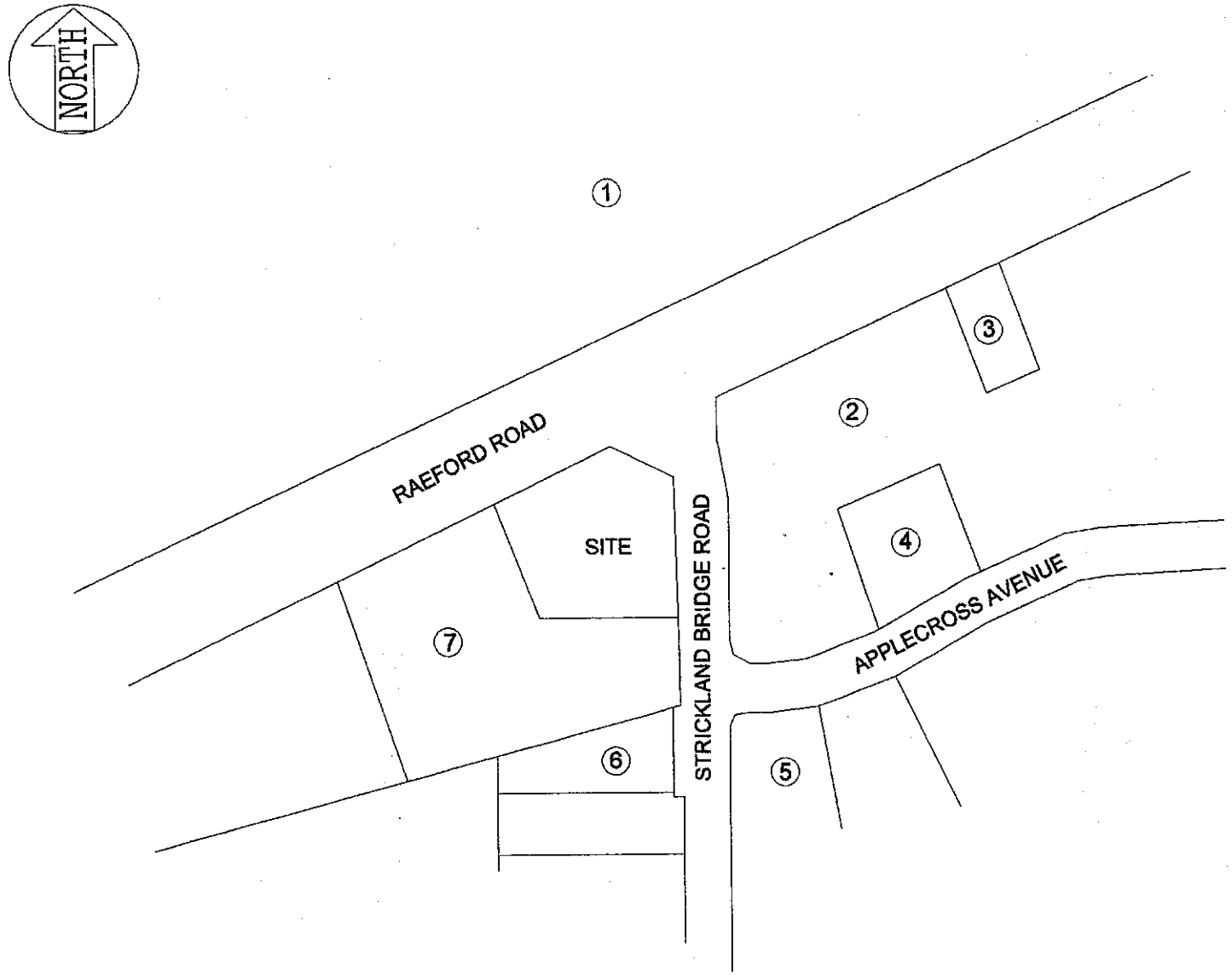


SEI *Engineering & Geological Services, P.C*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 3: VICINITY MAP
THE PANTRY #486
6601 RAEFORD RD.
FAYETTEVILLE, NC

DWG #: PA486F1

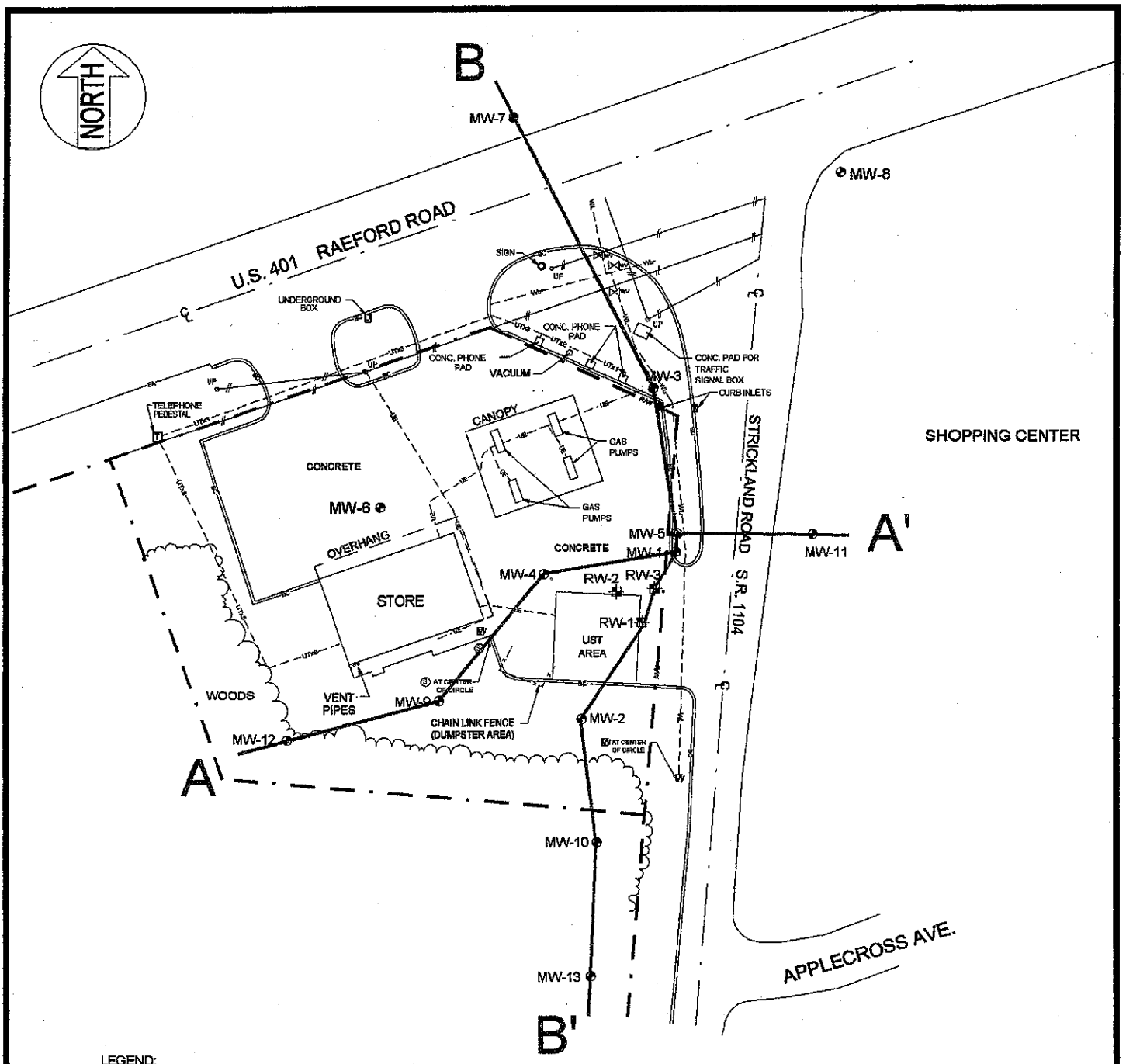
DATE: 4/9/01
DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
5100 North I-85, Suite 7A, Charlotte, NC 28206, Ph# 704-597-4022

FIGURE 4: SURROUNDING PROPERTIES
THE PANTRY #486
6601 RAEFORD RD.
FAYETTEVILLE, NC

DATE: 4/9/01
DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP UTILITY POLE
- WATER METER
- WV WATER VALVE
- SANITARY MANHOLE
- OVERHEAD ELECTRIC LINE
- UE UNDERGROUND ELECTRIC LINE
- UT UNDERGROUND TELEPHONE LINE
- WL WATER LINE

SEI *Engineering & Geological Services, P.C.*
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FIGURE 5: LINES OF GEOLOGIC CROSS-SECTIO
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430	DATE: 4/25/03
DWG #PA4865C	DRAWN BY: JCJ

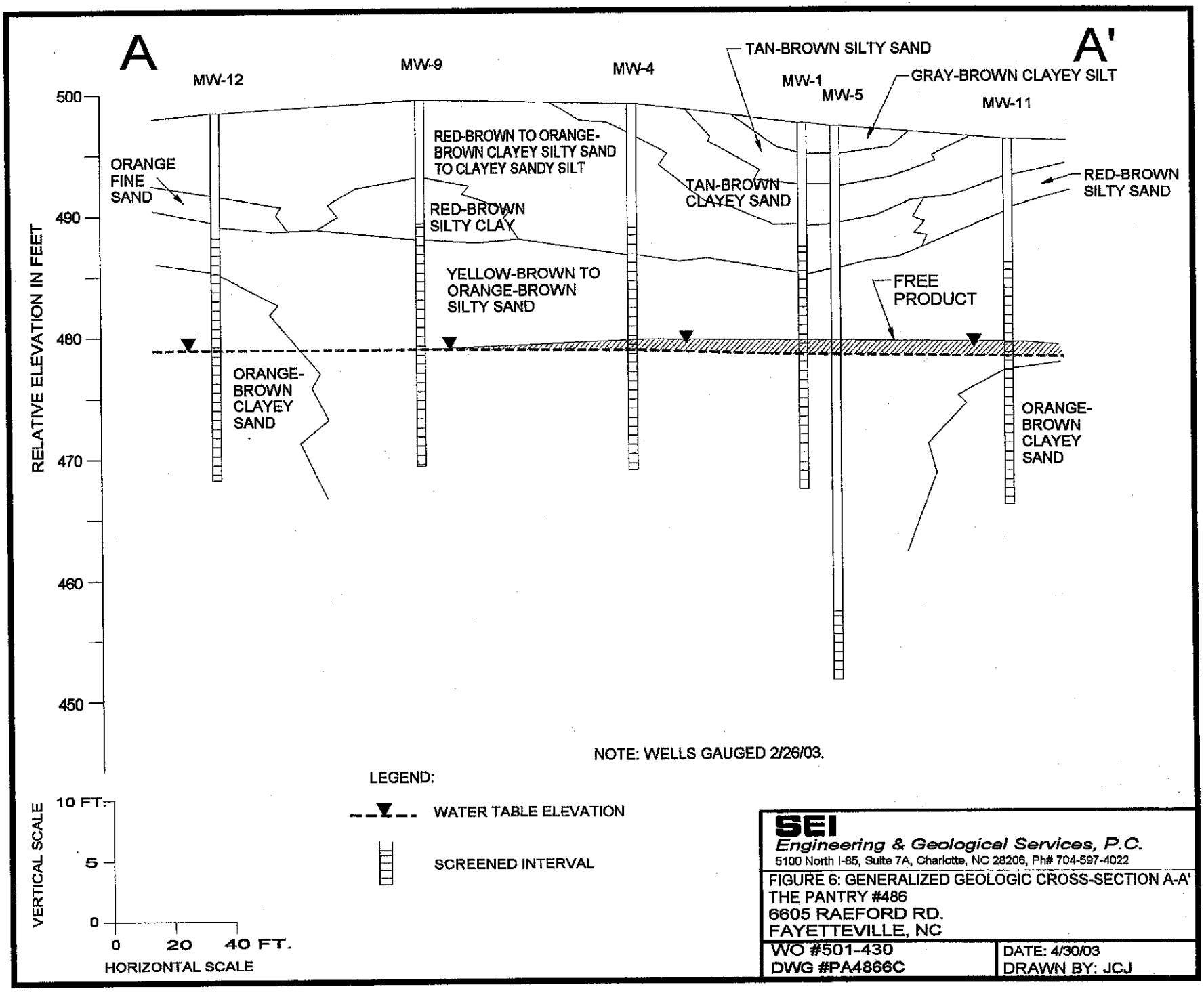

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FIGURE 6: GENERALIZED GEOLOGIC CROSS-SECTION A-A'
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO #501-430	DATE: 4/30/03
DWG #PA4866C	DRAWN BY: JCJ

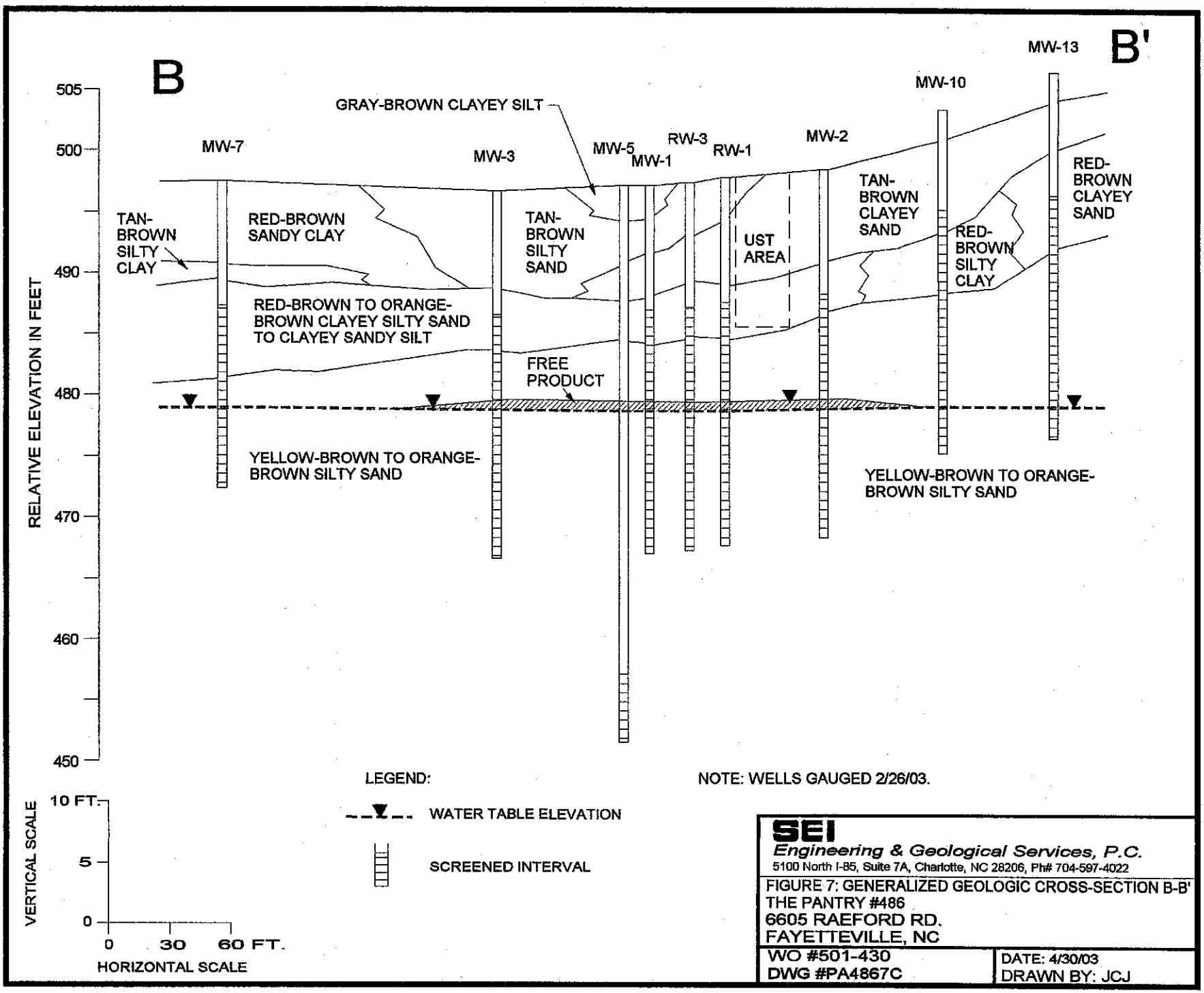

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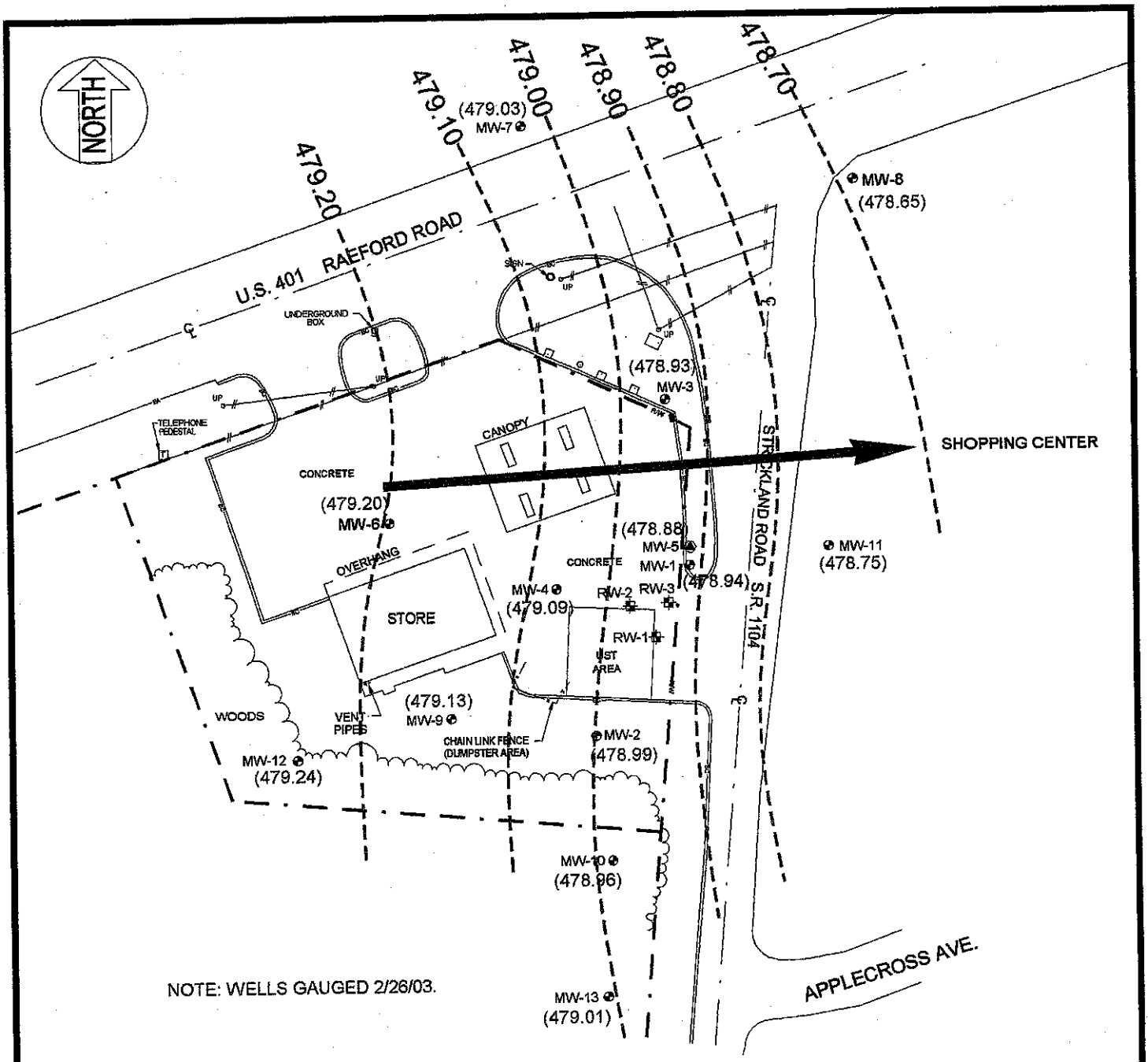
FIGURE 7: GENERALIZED GEOLOGIC CROSS-SECTION B-B'
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO #501-430
DWG #PA4867C

DATE: 4/30/03
DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
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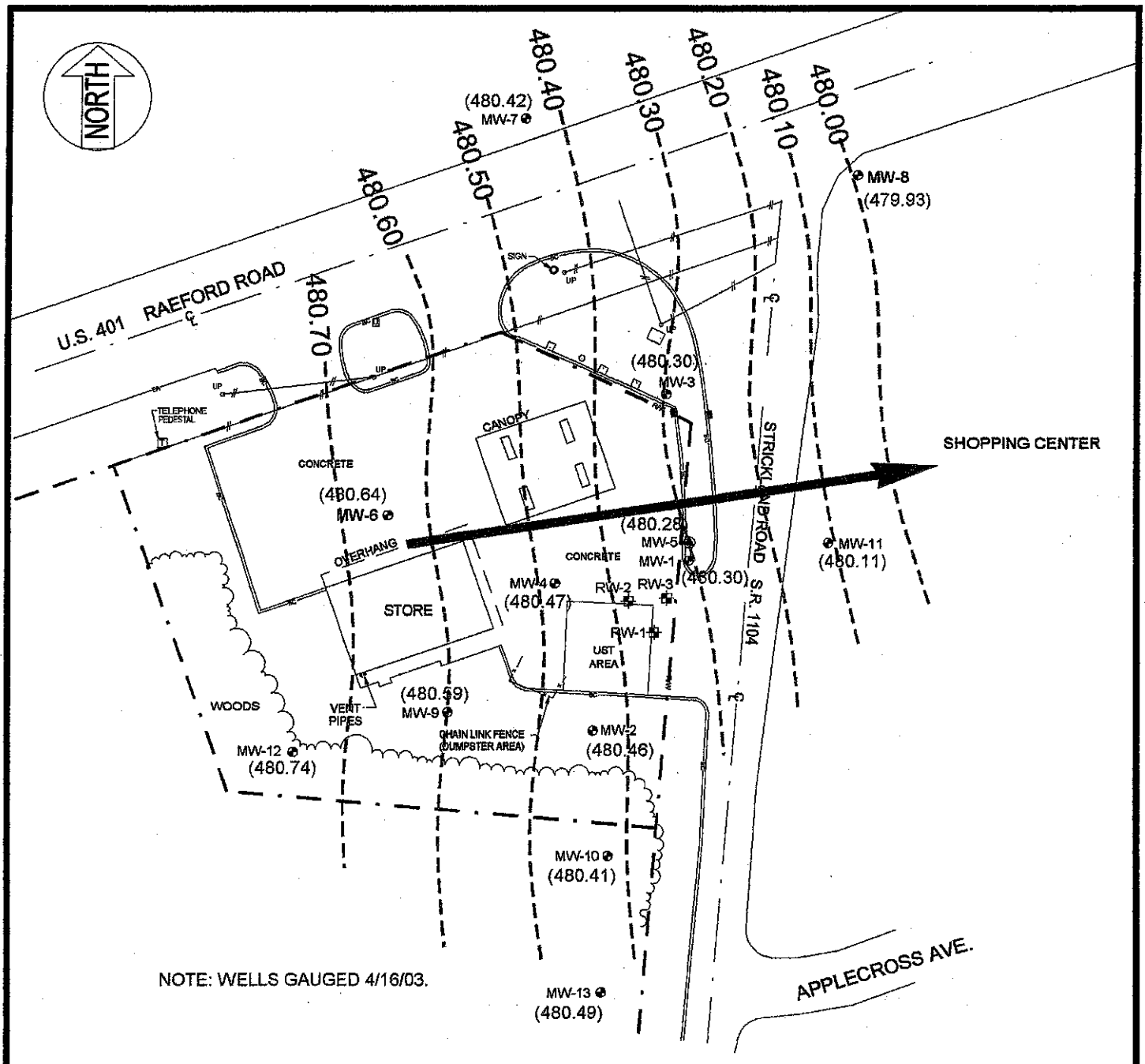
FIGURE 8: GROUNDWATER ELEVATION CONTOUR MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA4868C

DATE: 4/25/03
DRAWN BY: JCJ



SEI *Engineering & Geological Services, P.C.*
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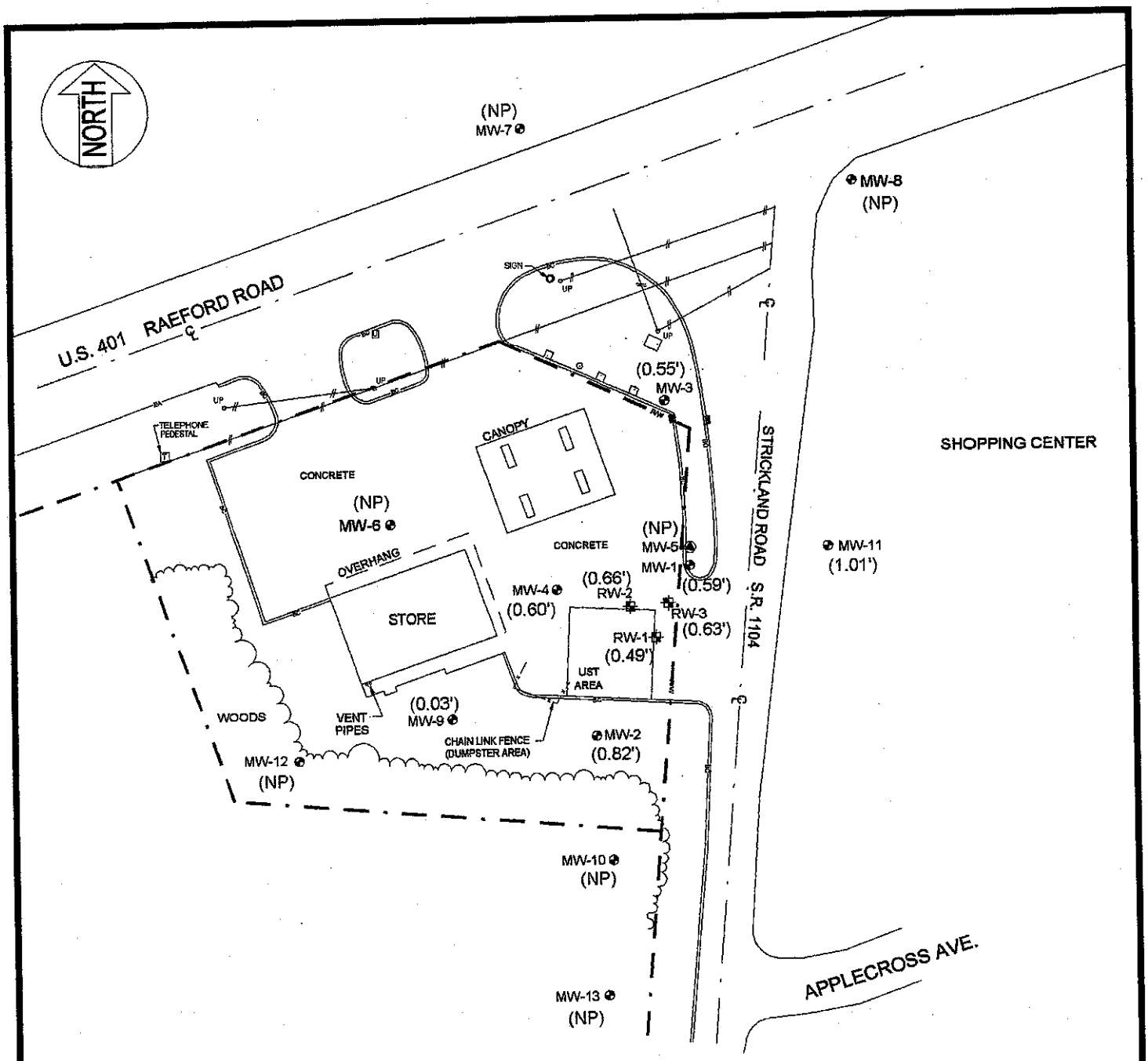
FIGURE 9: GROUNDWATER ELEVATION CONTOUR MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430	DATE: 4/25/03
DWG #PA4869C	DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP UTILITY POLE
- OVERHEAD ELECTRIC LINE
- (XXX) FREE PRODUCT THICKNESS(FT.)
  NP = NO PRODUCT

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

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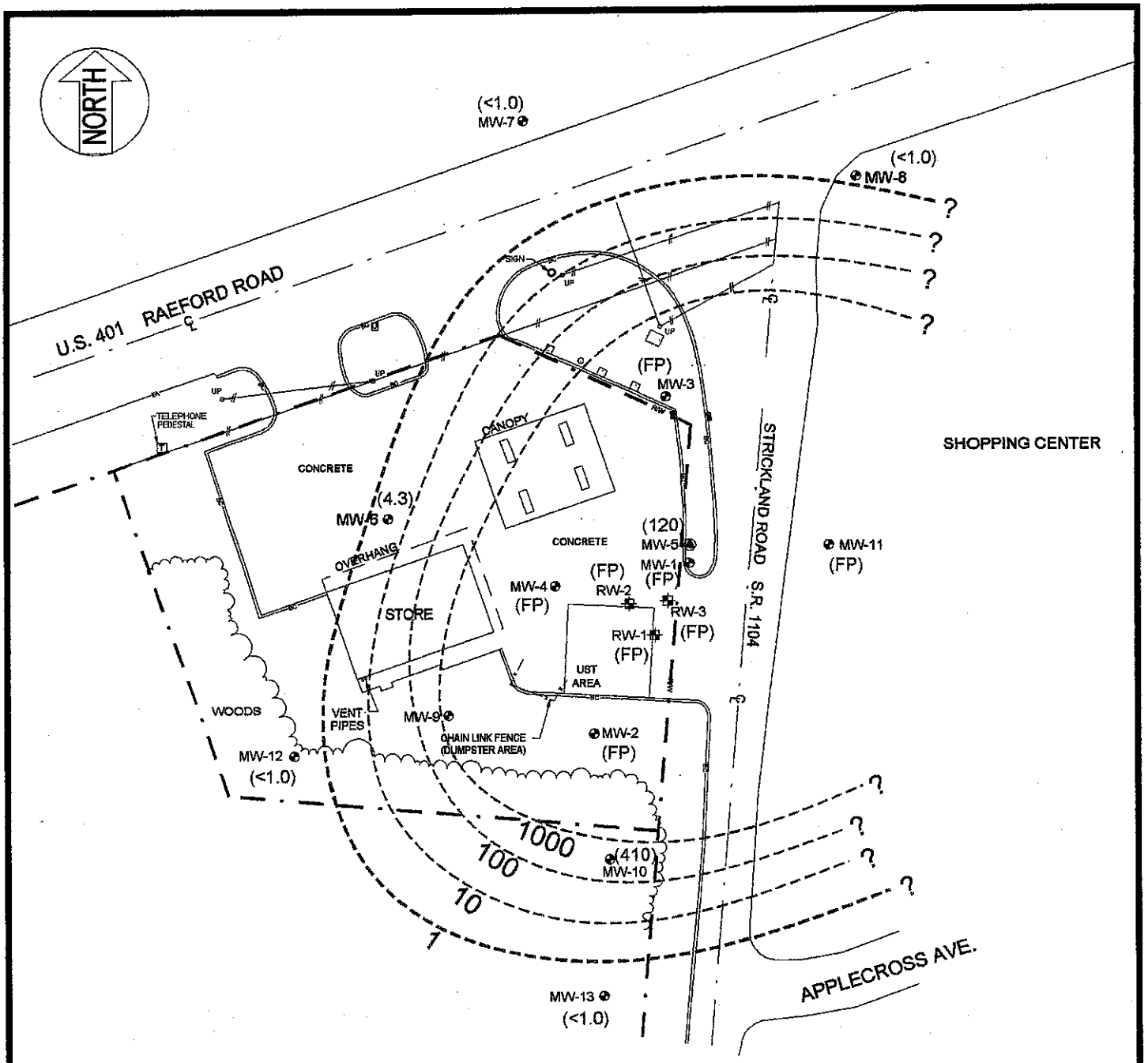
FIGURE 10: FREE PRODUCT THICKNESS MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48610C

DATE: 4/25/03
DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP UTILITY POLE
- OVERHEAD ELECTRIC LINE
- (XXX) BENZENE CONCENTRATION(ug/l)
  FP = FREE PRODUCT
  NS = NOT SAMPLED
- CONCENTRATION CONTOUR

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

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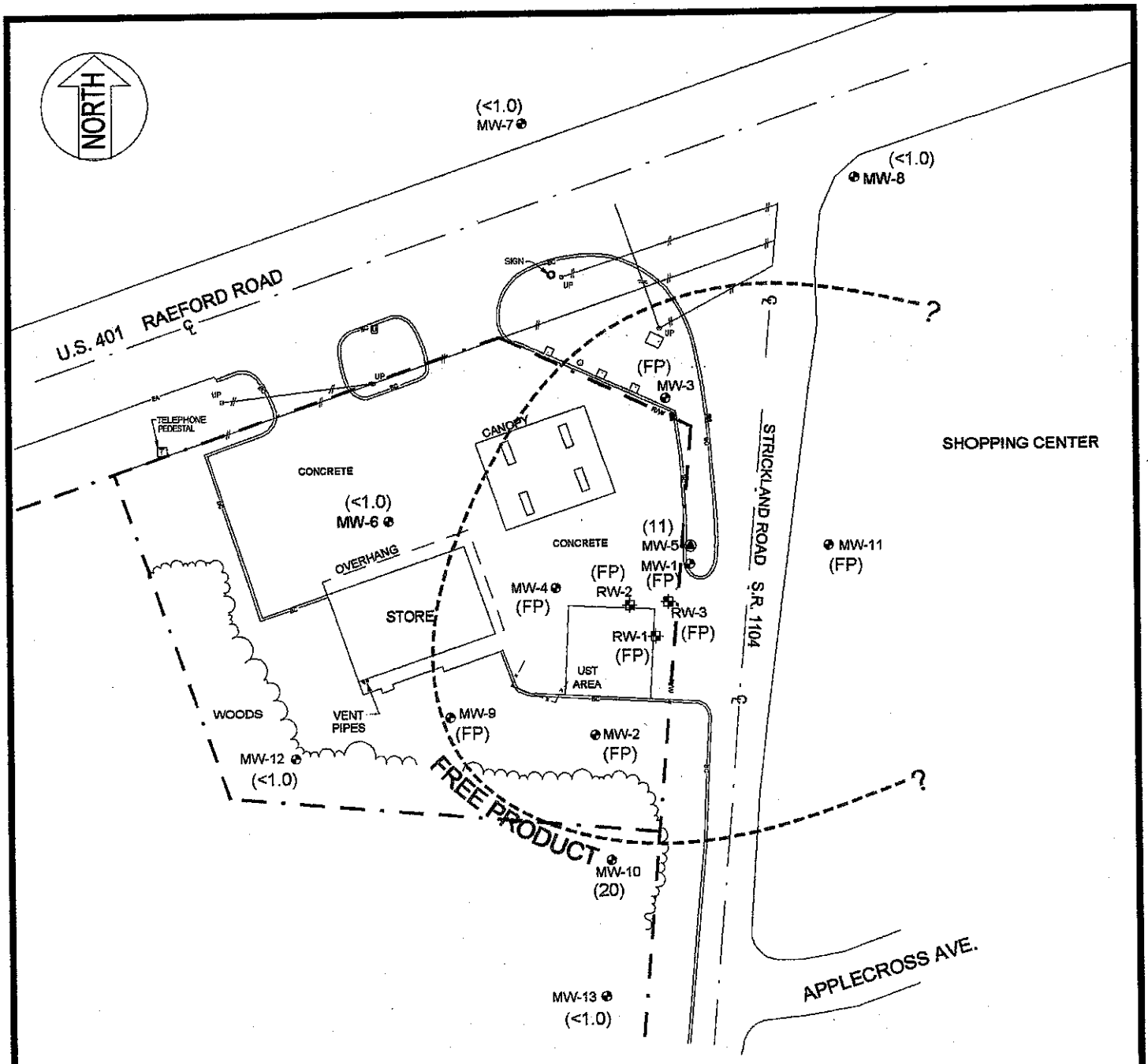
FIGURE 11: BENZENE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48611C

DATE: 4/25/03
DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP UTILITY POLE
- OVERHEAD ELECTRIC LINE
- (XXX) ETHYLBENZENE CONCENTRATION(ug/l)
  FP = FREE PRODUCT
  NS = NOT SAMPLED
- 29 CONCENTRATION CONTOUR

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

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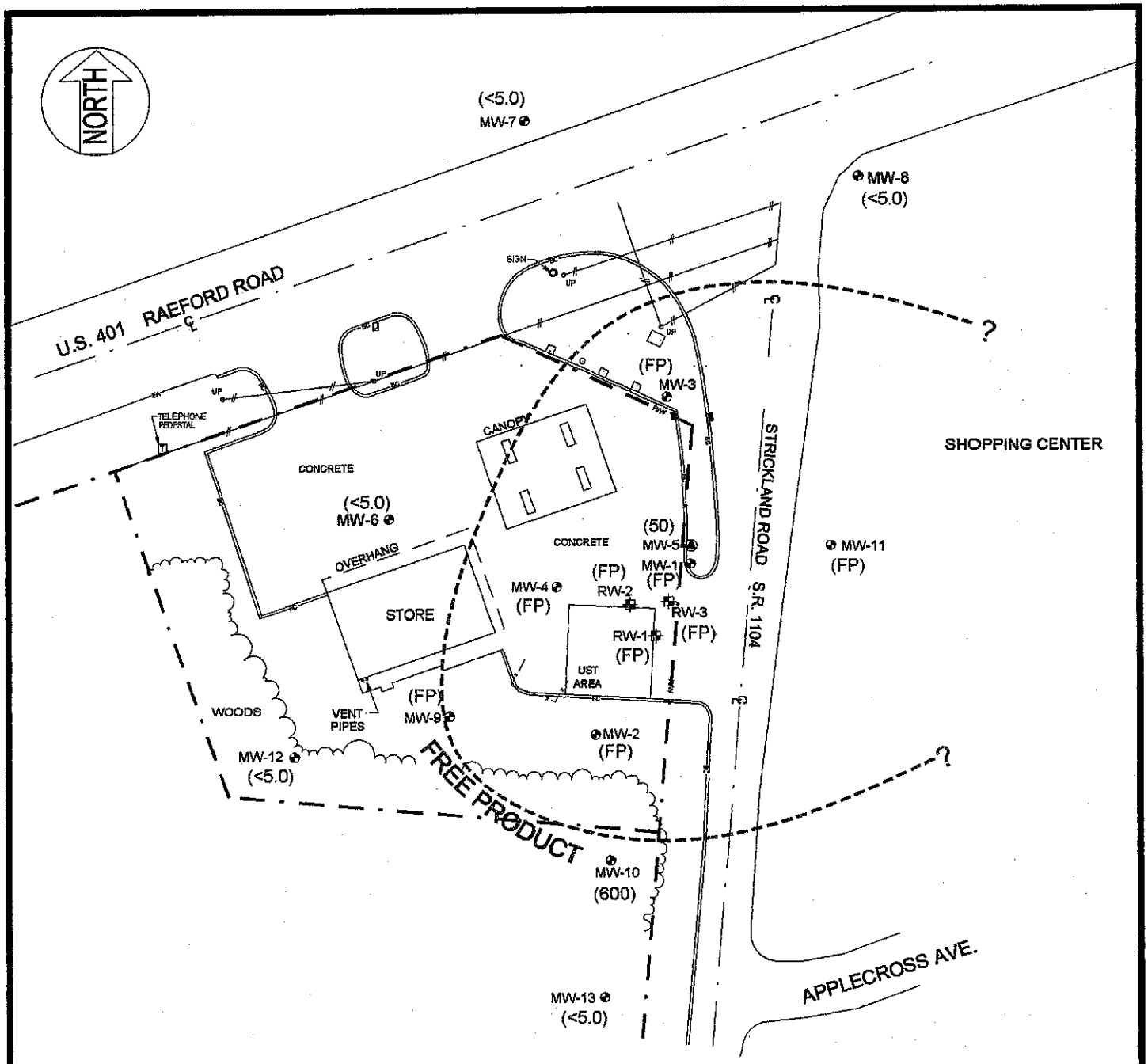
FIGURE 12: ETHYLBENZENE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48612C

DATE: 4/25/03
DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP — UTILITY POLE
- OVERHEAD ELECTRIC LINE
- (XXX) TOLUENE CONCENTRATION(ug/l)
  FP = FREE PRODUCT
  NS = NOT SAMPLED
- 1000 — CONCENTRATION CONTOUR

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

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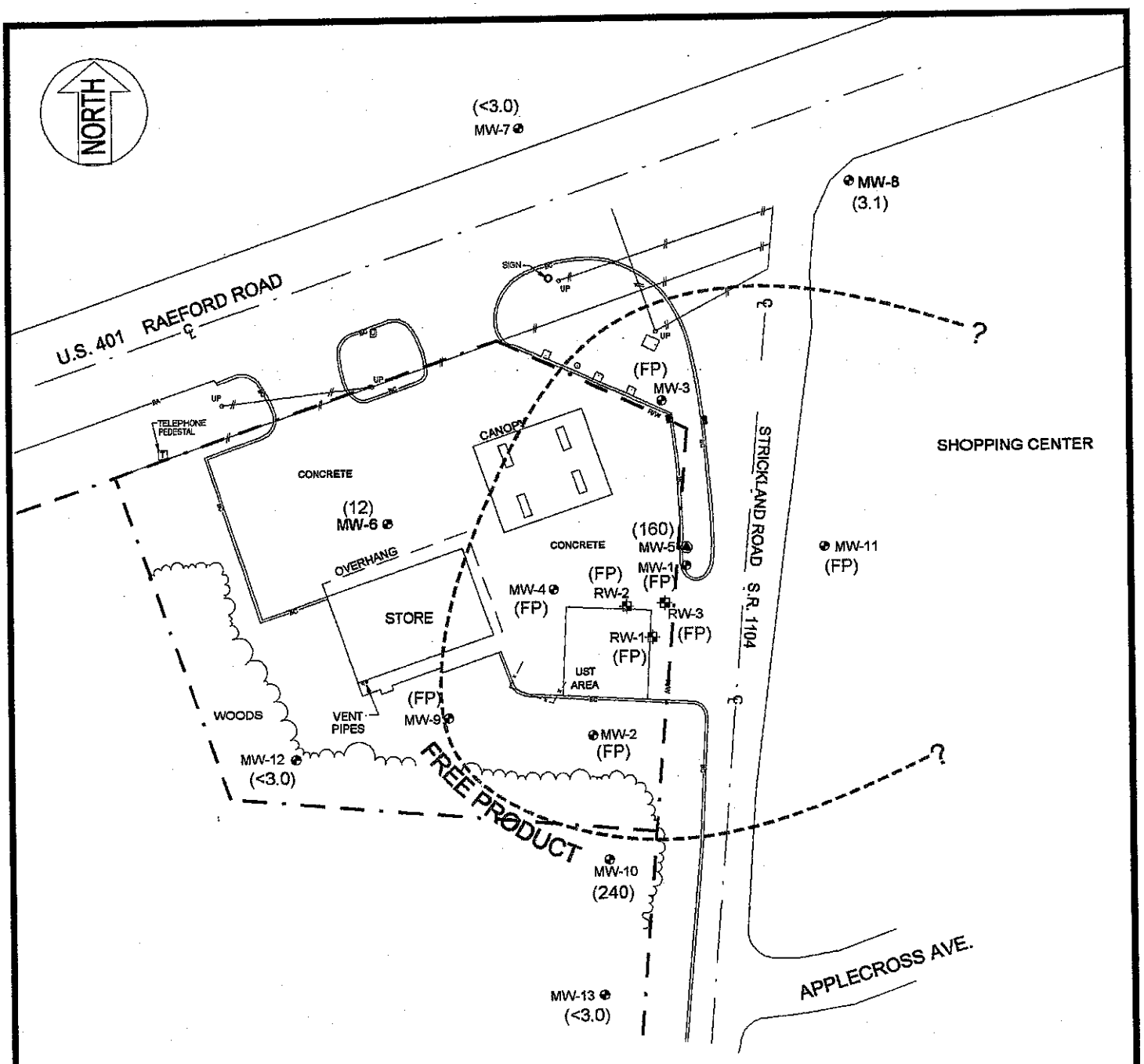
FIGURE 13: TOLUENE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48613C

DATE: 4/25/03
DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP — UTILITY POLE
- OVERHEAD ELECTRIC LINE
- (XXX) XYLENES CONCENTRATION(ug/l)
  FP = FREE PRODUCT
  NS = NOT SAMPLED
- 530 — CONCENTRATION CONTOUR

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

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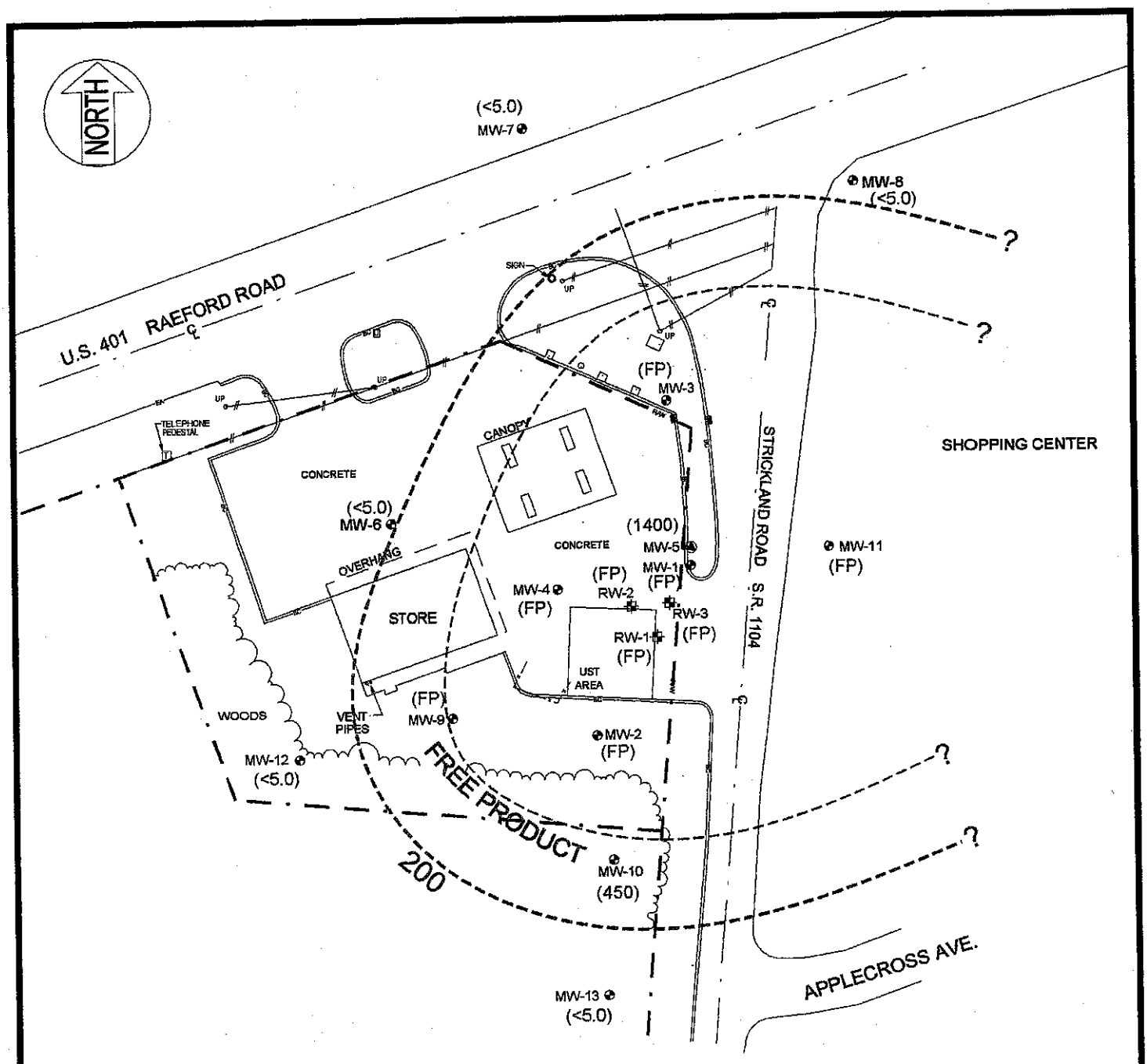
FIGURE 14: XYLENES CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48614C

DATE: 4/25/03
DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP — UTILITY POLE
- OVERHEAD ELECTRIC LINE
- (XXX) MTBE CONCENTRATION(ug/l)
  FP = FREE PRODUCT
  NS = NOT SAMPLED
- 200 — CONCENTRATION CONTOUR

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

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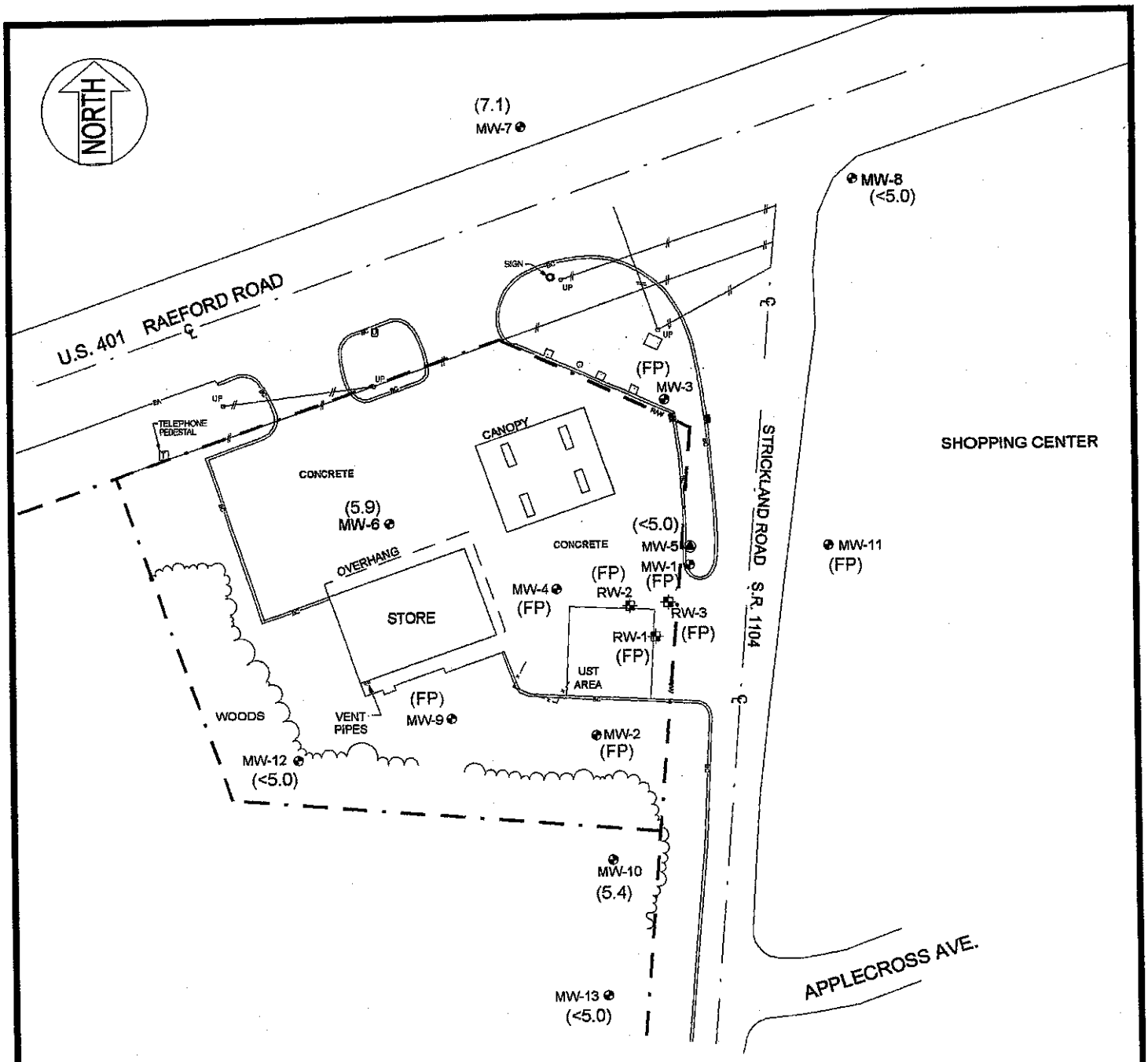
FIGURE 15: MTBE CONCENTRATION ISOPLETH
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48615C

DATE: 4/25/03
DRAWN BY: JCJ



LEGEND:

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- UP UTILITY POLE
- OVERHEAD ELECTRIC LINE

(XXX) LEAD CONCENTRATION(ug/l)
FP = FREE PRODUCT
NS = NOT SAMPLED

NOTE: WELLS GAUGED 2/26/03.

0 30 60 FT.

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FIGURE 16: LEAD CONCENTRATION MAP
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO # 501-430
DWG #PA48616C

DATE: 4/25/03
DRAWN BY: JCJ

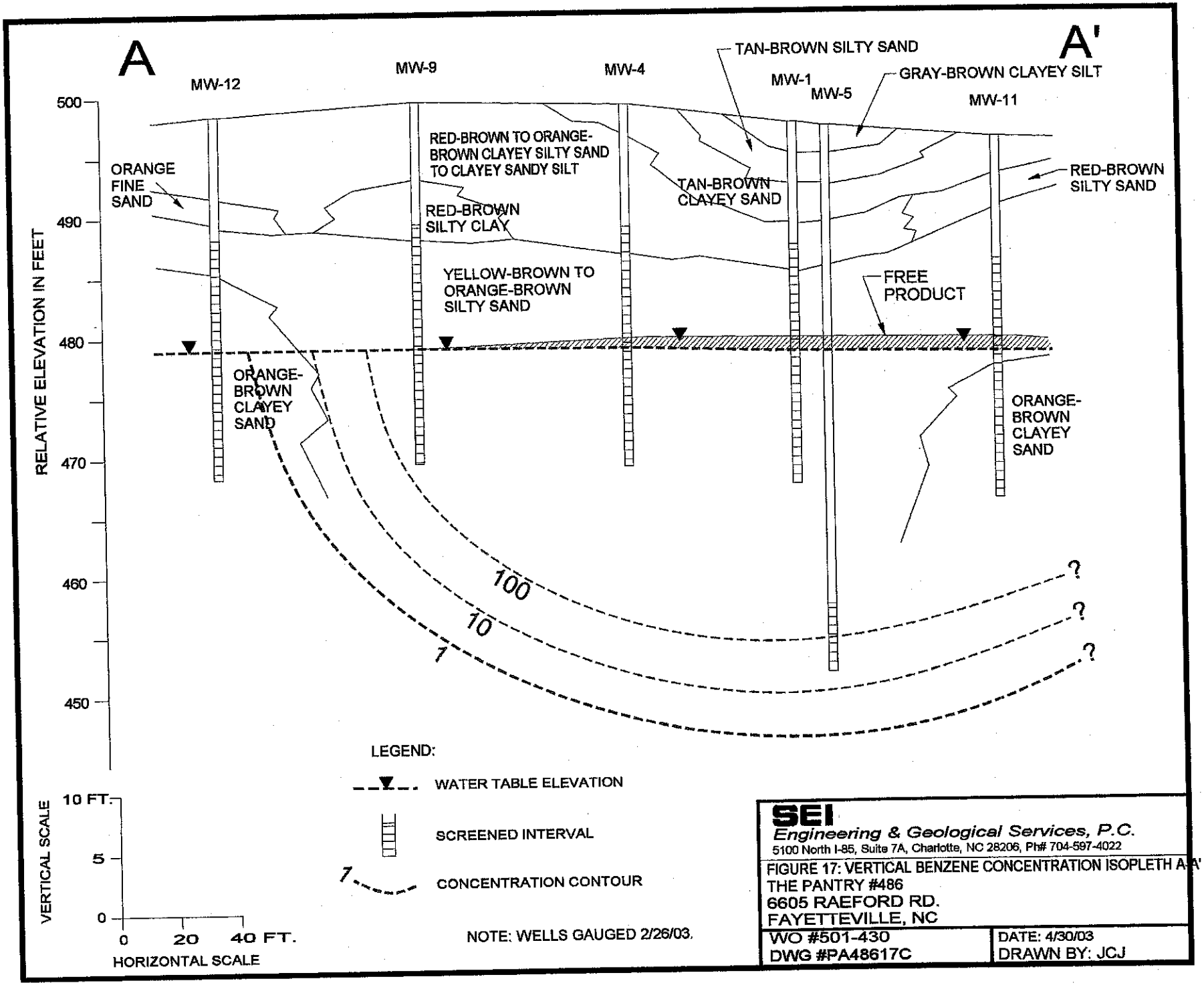

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FIGURE 17: VERTICAL BENZENE CONCENTRATION ISOPLETH A-A'
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO #501-430	DATE: 4/30/03
DWG #PA48617C	DRAWN BY: JCJ

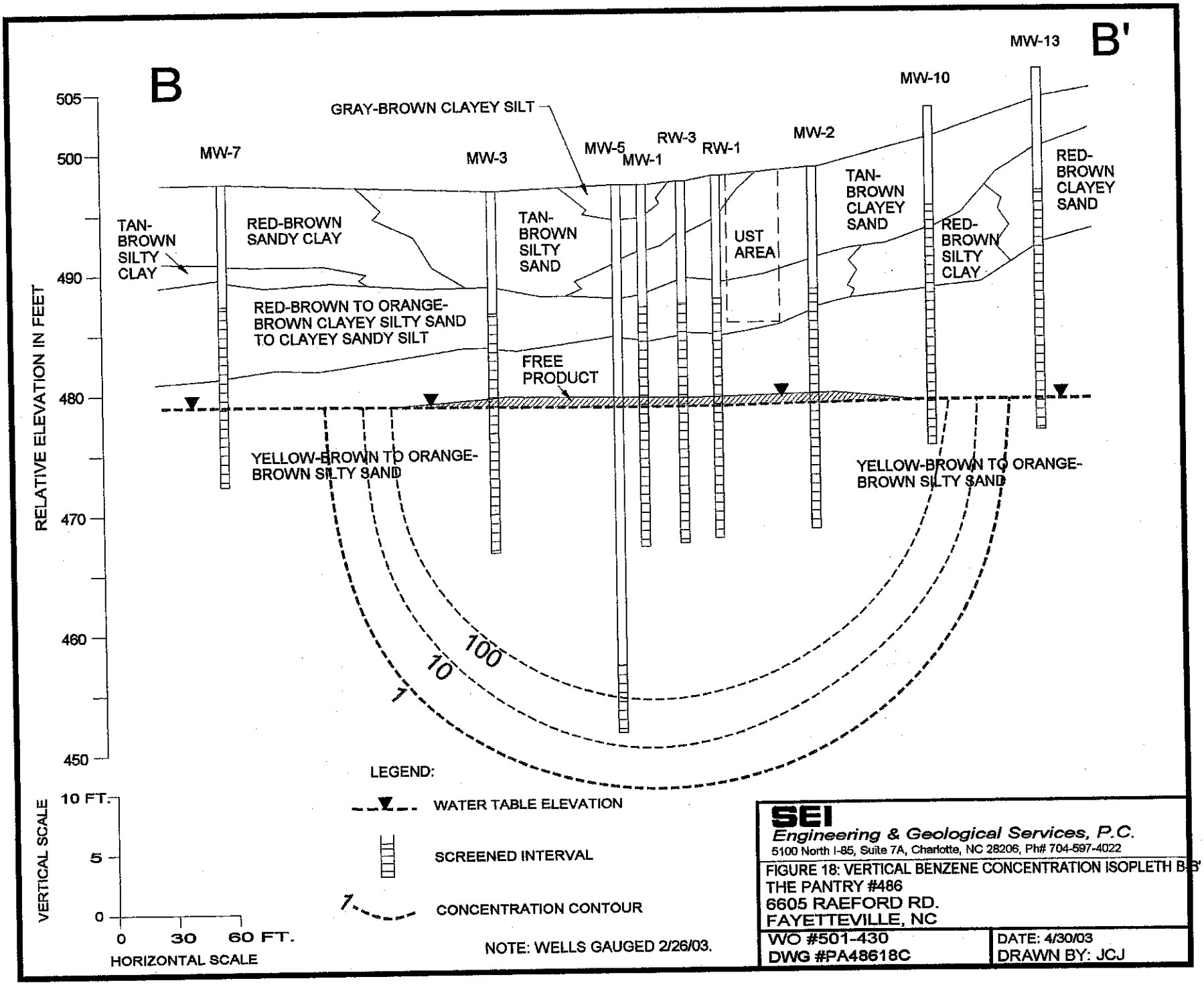

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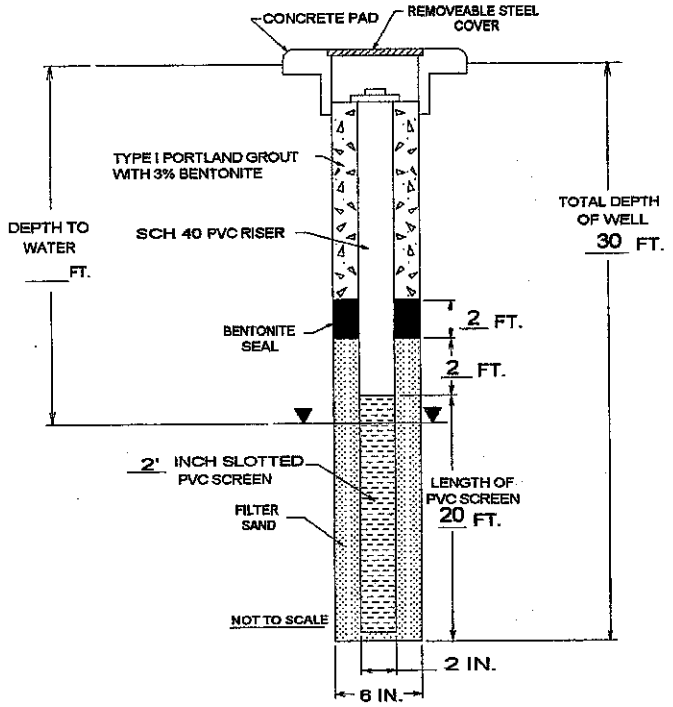
FIGURE 18: VERTICAL BENZENE CONCENTRATION ISOPLETH B-B'
THE PANTRY #486
6605 RAEFORD RD.
FAYETTEVILLE, NC

WO #501-430	DATE: 4/30/03
DWG #PA48618C	DRAWN BY: JCJ

APPENDIX A

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-6 DATE DRILLED: 10/15/01
STATE PERMIT #: WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: LONGITUDE:
TOP OF CASING ELEV.: LAND SURFACE ELEV.:

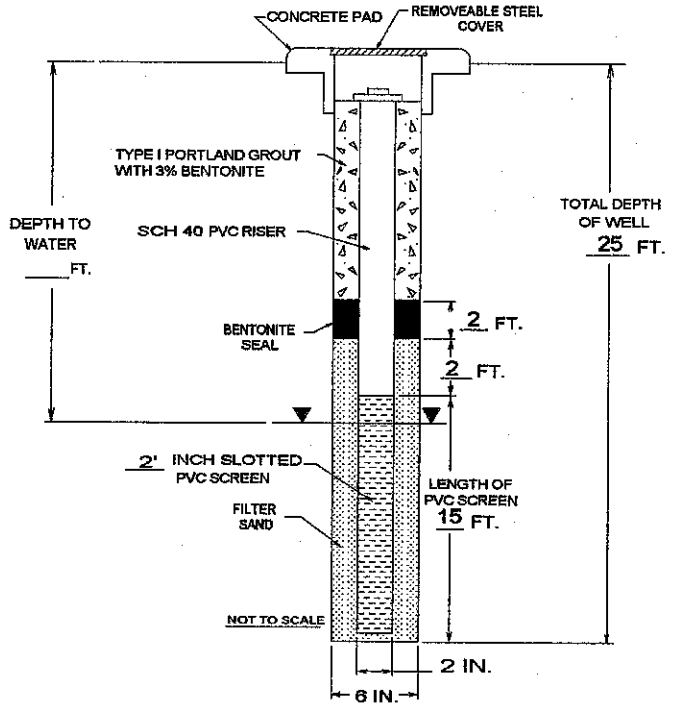


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD:
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS:

DEPTH 0	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0.5						Concrete
						Red-brown to gray-brown silty sand
6						
						Red-brown silty clay
12						
						Tan-brown to yellow-brown silty fine sand to silt
22						
						Gray-brown silty clay
24						
						Tan-brown silty medium to coarse sand
30						
						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-7 DATE DRILLED: 10/15/01
STATE PERMIT #: WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: LONGITUDE:
TOP OF CASING ELEV.: LAND SURFACE ELEV.:

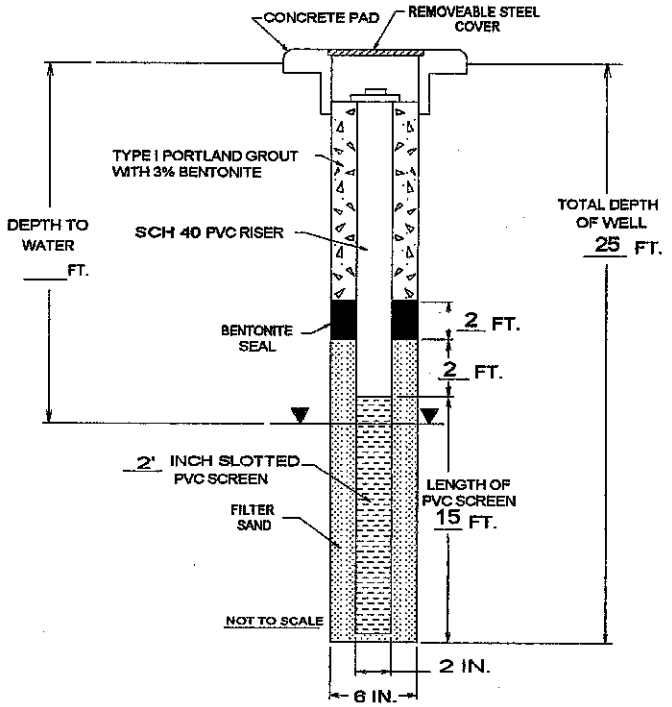


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD:
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS:

DEPTH 0	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
						Red-brown sandy clay
7						
8						Tan-brown sli. silty clay
						Red-brown clayey silt to fine sand
15						Yellow-brown medium to coarse sand
25						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-8 DATE DRILLED: 10/15/01
STATE PERMIT #: _____ WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____

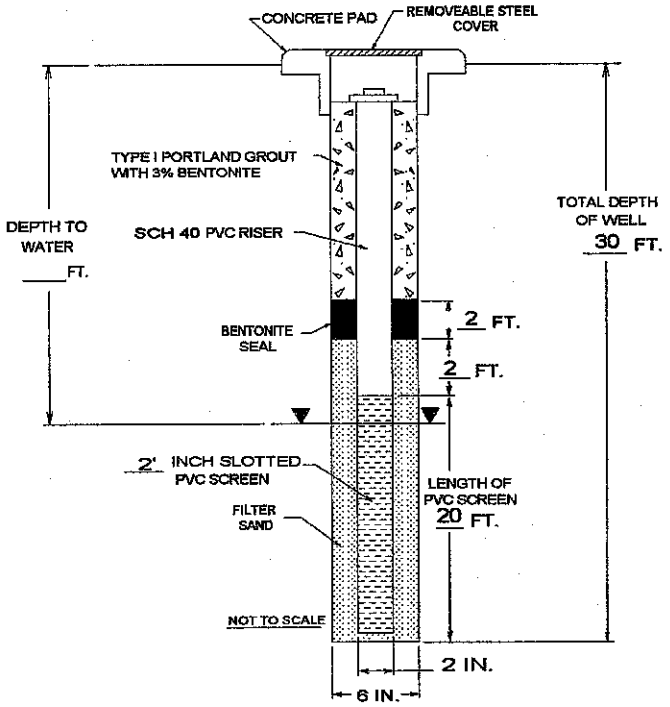


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS: _____

DEPTH 0	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0.5						Topsoil
						Red-brown to brown sandy clay
6						
						Red-brown clayey silt to fine sand
12						
						Yellow-brown to light tan-white fine sand
17						
						Yellow-brown sli. silty medium to coarse sand
25						
						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-9 DATE DRILLED: 10/15/01
STATE PERMIT #: WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: LONGITUDE:
TOP OF CASING ELEV.: LAND SURFACE ELEV.:

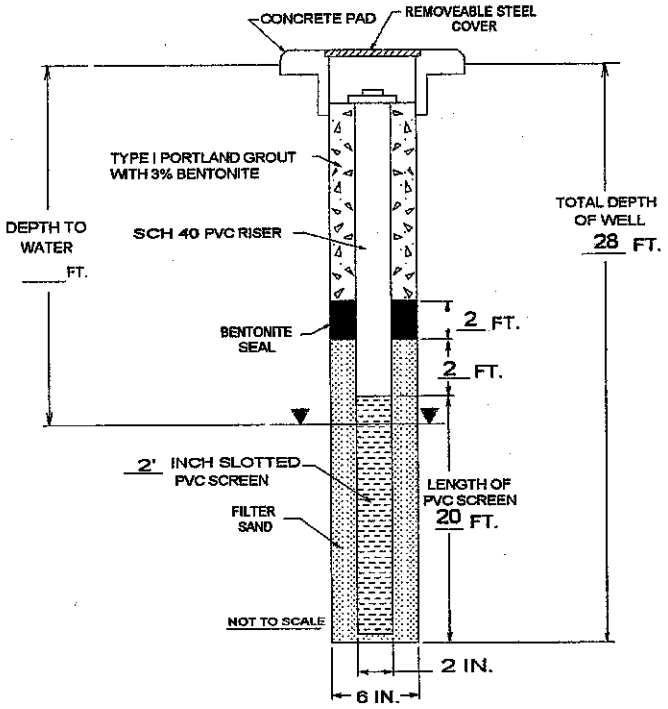


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD:
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS:

DEPTH 0	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
						Red-brown to orange-brown sli. clayey silty sand
5						
						Medium gray sli. sandy silty clay
7						
						Red-brown silty clay to clayey silt
12						
						Tan-brown silty medium sand
30						
						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-10 DATE DRILLED: 10/15/01
STATE PERMIT #: WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: LONGITUDE:
TOP OF CASING ELEV.: LAND SURFACE ELEV.:

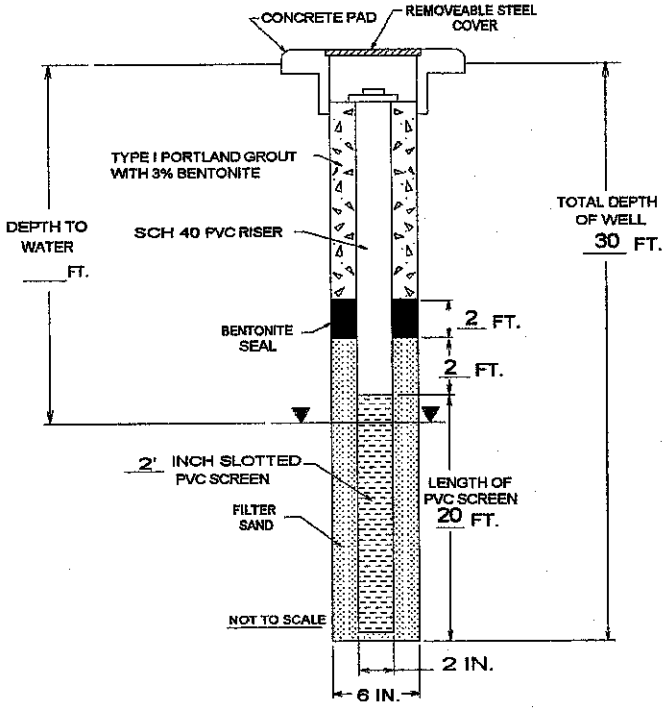


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD:
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS:

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOV-ERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						Tan-brown to red brown clayey fine sand to sandy clay
8						Red-brown silty clay
13						Yellow-brown silty fine sand
28						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-11 DATE DRILLED: 02/26/02
STATE PERMIT #: _____ WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____

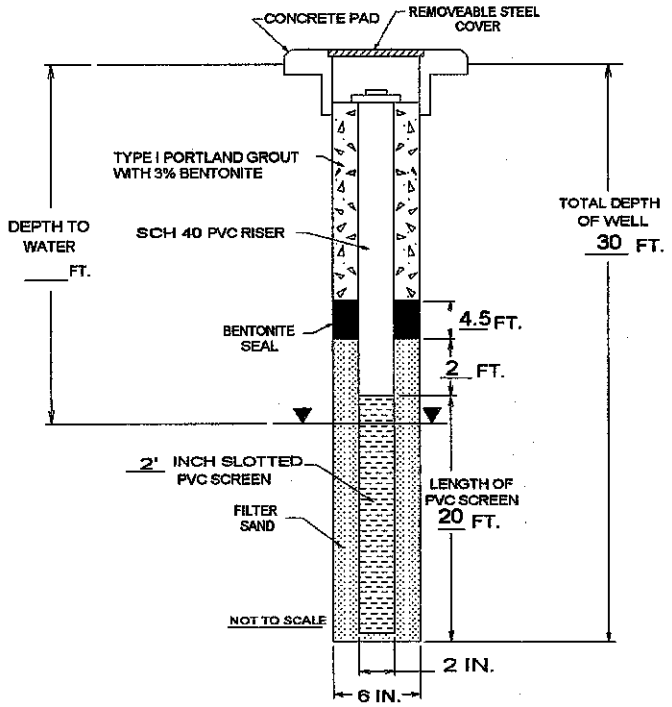


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS: _____

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOV-ERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						Orangish-brown fine, clayey sand
2						Reddish-orange fine silty sand
4						Orangish-yellow fine sand
18						Orange fine clayey sand
30						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-12 DATE DRILLED: 03/01/02
STATE PERMIT #: _____ WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: _____ LONGITUDE: _____
TOP OF CASING ELEV.: _____ LAND SURFACE ELEV.: _____

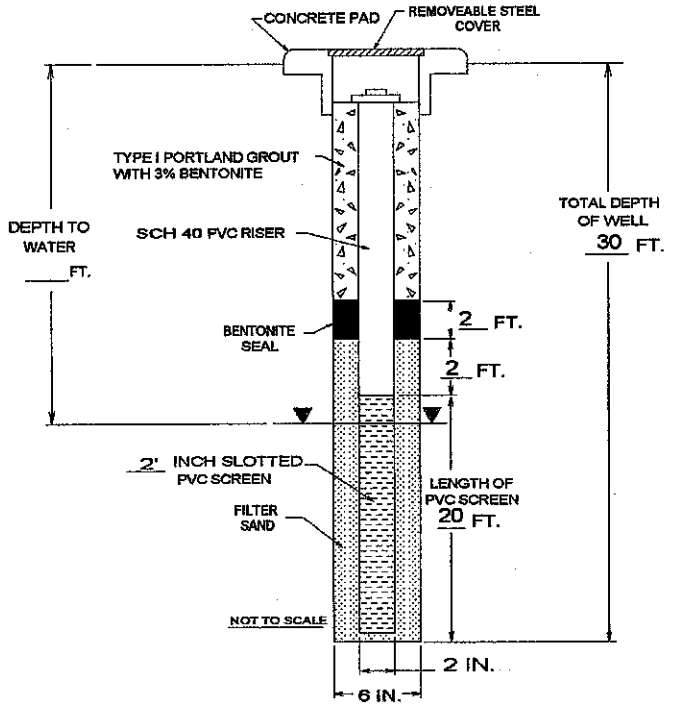


DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD: _____
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS: _____

DEPTH	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
0						Dark brown organic topsoil
2						Orangish-brown medium fine clayey sand
8						Orangish fine graded sand, 2" coarse layer, then fine layer
9.5						Yellowish-brown fine silty sand
13						Orangish-brown clayey sand
23						Orangish-brown medium clayey sand
30						Bottom of Boring

Boring Log and Type II Well Construction Details

WELL IDENTIFICATION : MW-13 DATE DRILLED: 02/26/02
STATE PERMIT #: WORK ORDER #: 501430
PROJECT NAME: Pantry # 486
SITE ADDRESS: 6605 Raeford Road, Fayetteville, NC
LATITUDE: LONGITUDE:
TOP OF CASING ELEV.: LAND SURFACE ELEV.:



DRILLING METHOD: Hollow Stem Auger
SAMPLING METHOD:
GRAVEL PACK SIZE: 20/40 Silica Sand
SLOT SIZE: .010
COMMENTS:

DEPTH 0	SAMPLE NUMBER	BLOW COUNT	RECOVERY	OVA (ppm)	UNIFIED METHOD	DESCRIPTIVE LOG
						Dark brown clayey medium sand
3						
						Reddish-brown medium fine clayey sand
10						
						Orange fine silty sand to yellow very fine
						sandy silt
						Orangish-brown clayey sand
21						
						Orangish-brown fine clayey sand
30						
						Bottom of Boring

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration -- Mark Gettys

DRILLER REGISTRATION NUMBER 2345

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-6

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. -- The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 10/15/01 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL ____ FT. [ ] Above [X] 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 6	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter	Slot Size	Material
FROM	10	TO 30	FT	2 in	.010 in	PVC
FROM		TO	FT	in	in	

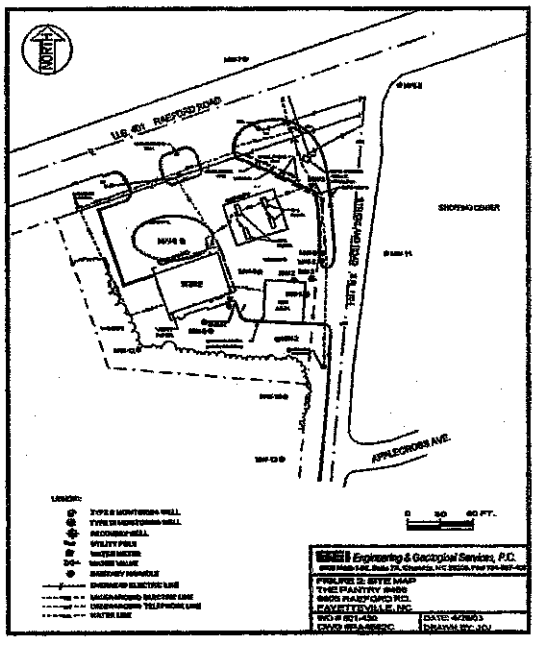
13. GRAVEL PACK:

	Depth			Size	Material
FROM	8	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	0.5	Concrete
0.5	6	Red-brown to gray-brown silty sand
6	12	Red-brown silty clay
12	22	Tan-brown to yellow-brown silty fine sand to fine silt
22	24	Gray-brown silty clay
24	30	Tan-brown silty medium to coarse sand

If additional spaces 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: Bentonite seal from 6' to 8'

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 10/15/01

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Mark Gettys

DRILLER REGISTRATION NUMBER 2345

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-7

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

County: Cumberland

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 10/15/01 USE OF WELL Monitoring

4. TOTAL DEPTH 25' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL ____ FT. [ ] Above TOP OF CASING.
[X] Below
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.

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

8. WATER ZONES (depth): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 6	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter		Slot Size		Material
FROM	10	TO 25	FT	2	In	.010	in	PVC
FROM		TO	FT		In		in	

13. GRAVEL PACK:

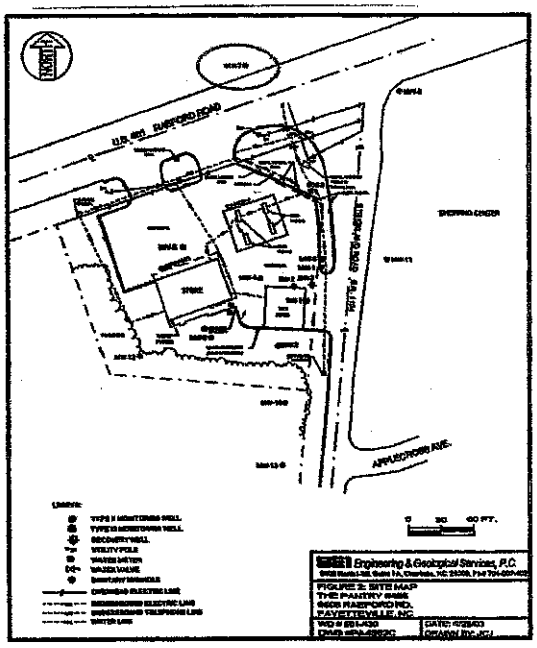
	Depth			Size	Material
FROM	8	TO 25	FT	20/40	Silica Sand
FROM		TO	FT		

14. REMARKS: Bentonite seal from 6' to 8'

Depth From	Depth To	DRILLING LOG Formation Description
0	7	Red-brown sandy clay
7	8	Tan-brown sli. silty clay
8	15	Red-brown clayey silt to fine sand
15	25	Yellow-brown medium to coarse sand

If additional spaces 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 10/15/01

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Mark Gettys

DRILLER REGISTRATION NUMBER 2345

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-8

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 10/15/01 USE OF WELL Monitoring

4. TOTAL DEPTH 25' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL ____ FT. [ ] Above TOP OF CASING.
[X] Below
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.

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

8. WATER ZONES (depth): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 6	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter		Slot Size		Material
FROM	10	TO 25	FT	2	In	.010	in	PVC
FROM		TO	FT		In		in	

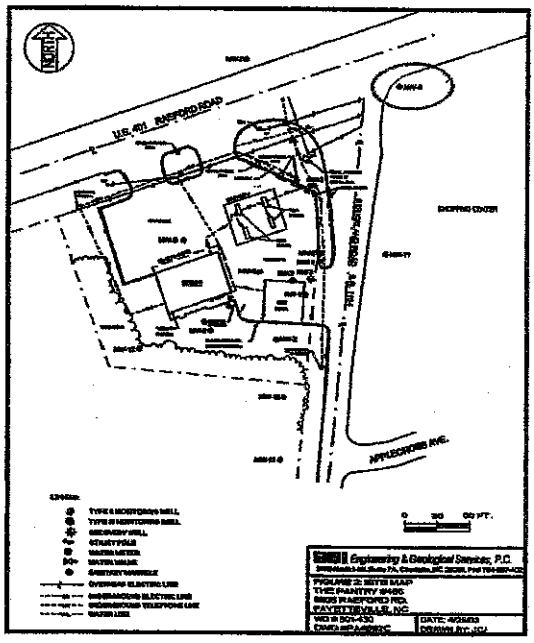
13. GRAVEL PACK:

	Depth			Size	Material
FROM	8	TO 25	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	0.5	Topsoil
0.5	6	Red-brown to brown sandy clay
6	12	Red-brown clayey silt to fine sand
12	17	Yellow-brown to light tan-white fine sand
17	25	Yellow-brown sli. silty medium to coarse sand

If additional spaces 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: Bentonite seal from 6' to 8'

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 10/15/01

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Mark Gettys

DRILLER REGISTRATION NUMBER 2345

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-9

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410 (Street or Route No.)
Sanford (City or Town) NC (State) 27330 (Zip Code)

3. DATE DRILLED 10/15/01 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL ____ FT. [ ] Above [X] 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 6	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter		Slot Size		Material
FROM	10	TO 30	FT	2	In	.010	in	PVC
FROM		TO	FT		In		in	

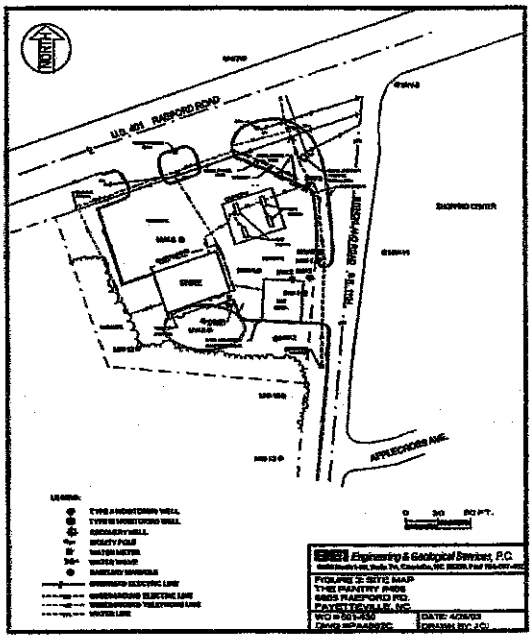
13. GRAVEL PACK:

	Depth			Size	Material
FROM	8	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	5	Red-brown to orange-brown sli. clayey silty sand
5	7	Medium gray sli. sandy silty clay
7	12	Red-brown silty clay
12	30	Tan-brown silty medium sand

If additional spaces 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: Bentonite seal from 6' to 8'

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 10/15/01

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Mark Gettys

DRILLER REGISTRATION NUMBER 2345

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-10

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 10/15/01 USE OF WELL Monitoring

4. TOTAL DEPTH 28' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL ____ FT. [ ] Above TOP OF CASING.
[X] Below
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.

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

8. WATER ZONES (depth): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 8	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 4	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter		Slot Size		Material
FROM	8	TO 28	FT	2	In	.010	in	PVC
FROM		TO	FT		In		in	

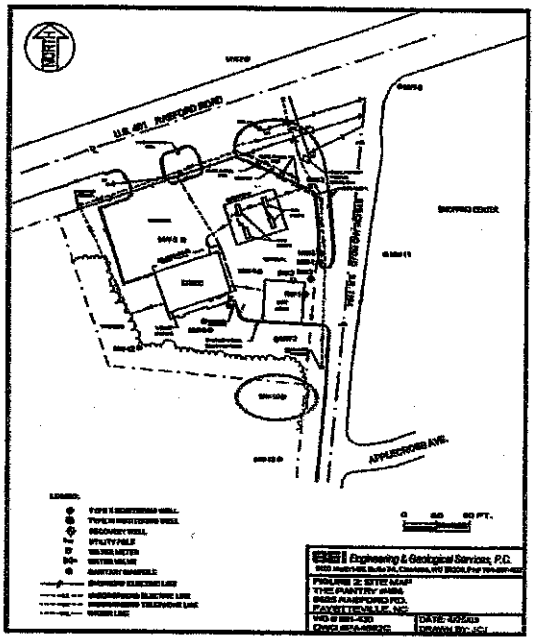
13. GRAVEL PACK:

	Depth			Size	Material
FROM	6	TO 28	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	8	Tan-brown to red-brown clay-ey fine sandy to sandy clay
8	13	Red-brown silty clay
13	28	Yellow-brown silty fine sand

If additional spaces 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: Bentonite seal from 4' to 6'

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 10/15/01

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Ricky Brady

DRILLER REGISTRATION NUMBER 2438

MW-11

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 02/26/02 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL ____ FT. [ ] Above TOP OF CASING.
[X] Below
TOP OF CASING IS 0 FT. ABOVE LAND SURFACE.

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

8. WATER ZONES (depth): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 6	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter		Slot Size		Material
FROM	10	TO 30	FT	2	In	.010	in	PVC
FROM		TO	FT		In		in	

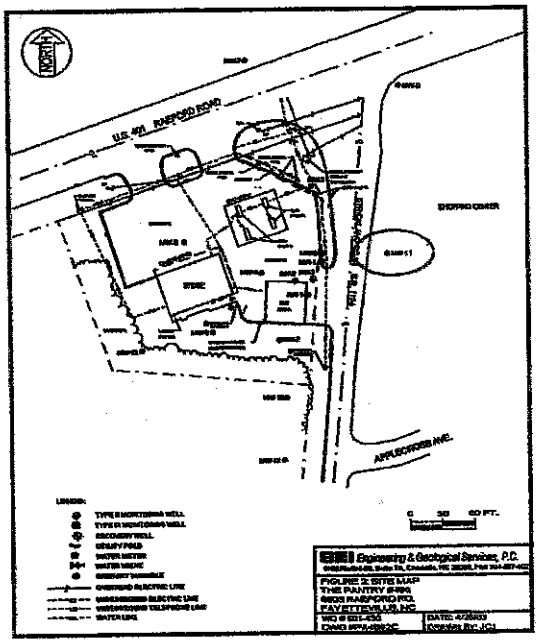
13. GRAVEL PACK:

	Depth			Size	Material
FROM	8	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	2	Orangish-brown fine, clayey sand
2	4	Reddish-orange fine silty sand
4	18	Orangish-yellow fine sand
18	30	Orange fine clayey sand

If additional spaces 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: Bentonite seal from 6' to 8'

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 02/26/02

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Ricky Brady

DRILLER REGISTRATION NUMBER 2438

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-12

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410 (Street or Route No.)
Sanford (City or Town) NC (State) 27330 (Zip Code)

3. DATE DRILLED 03/01/02 USE OF WELL Monitoring

4. TOTAL DEPTH 30' CUTTINGS COLLECTED Yes [X] No [ ]

5. DOES WELL REPLACE EXISTING WELL? [ ] Yes [X] No

6. STATIC WATER LEVEL ____ FT. [ ] Above [X] 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 3	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter	Slot Size	Material
FROM	10	TO 30	FT	2 In	.010 in	PVC
FROM		TO	FT	In	in	

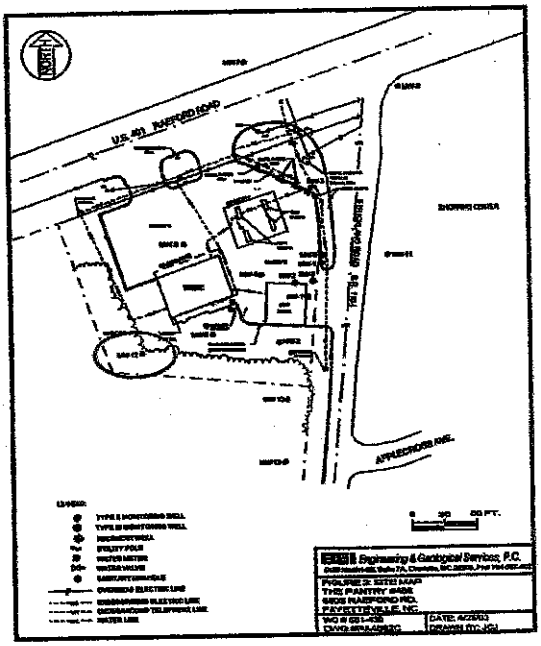
13. GRAVEL PACK:

	Depth			Size	Material
FROM	7.5	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	2	Dark brown organic topsoil
2	8	Orangish-brown medium fine clayey sand
8	9.5	Orangish fine graded sand, 2" coarse layer then fine layer
9.5	13	Yellowish-brown fine silty sand
13	23	Orangish-brown clayey sand
23	30	Orangish-brown medium clayey sand

If additional spaces 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: Bentonite seal from 3' to 7.5'

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 03/01/02

GW-1 Revised 6/88

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

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27587 - RALEIGH, N.C. 27611, PHONE (919) 733-3221

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 Geologic Exploration – Ricky Brady

DRILLER REGISTRATION NUMBER 2438

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

MW-13

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

Nearest Town: Fayetteville
6605 Raeford Road
(Road, Community, or Subdivision and Lot No.)

County: Cumberland

2. OWNER The Pantry, Inc. – The Pantry #486
ADDRESS PO Box 1410
(Street or Route No.)
Sanford NC 27330
City or Town State Zip Code

3. DATE DRILLED 02/26/02 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): N/A

9. CHLORINATION: Type N/A Amount N/A

10. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
FROM	0	TO 10	FT	2"	Sch 40	PVC
FROM		TO	FT			

11. GROUT:

	Depth			Material	Method
FROM	0	TO 6	FT	Portland	Slurry
FROM		TO	FT		

12. SCREEN:

	Depth			Diameter	Slot Size	Material
FROM	10	TO 30	FT	2 In	.010 in	PVC
FROM		TO	FT	In	in	

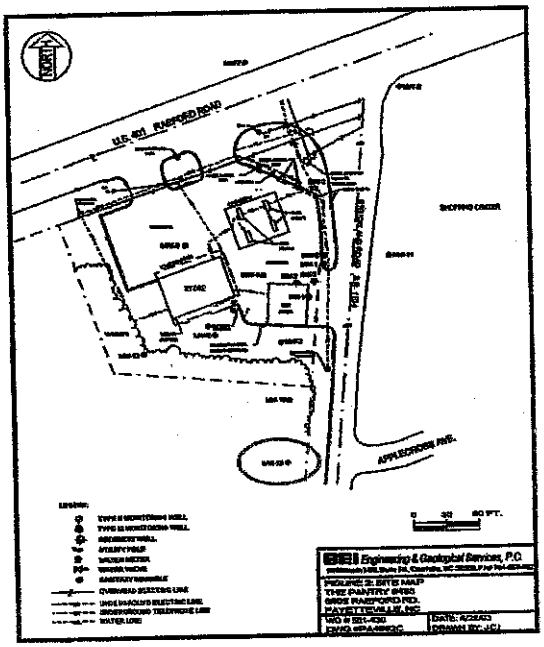
13. GRAVEL PACK:

	Depth			Size	Material
FROM	8	TO 30	FT	20/40	Silica Sand
FROM		TO	FT		

Depth From	Depth To	DRILLING LOG Formation Description
0	3	Dark brown clayey medium sand
3	10	Reddish-brown medium fine clayey sand
10	21	Orange fine silty sand to yellow very fine sandy-silt
21	30	Orangish-brown fine clayey sand

If additional spaces 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: Bentonite seal from 6' to 8'

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 02/26/02

GW-1 Revised 6/88

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

APPENDIX B

SOIL SOLUTIONS

CERTIFICATE OF ACCEPTANCE

Soil Solutions, Inc. does hereby certify that 1 drum of non-hazardous contaminated material received on 01/02/2002 from:

Generator: The Pantry #486

Originating at: 6605 Raeford Road
Fayetteville, NC

SSI Waste ID#: 120123

has been accepted by Soil Solutions, Inc. and will be remediated in their Soil Treatment Facility in Winston-Salem, North Carolina. Soil Solutions, Inc. guarantees the contaminated material will be treated to below regulatory standards established by the North Carolina Department of Environment and Natural Resources for clean soil.

Thomas W. Hammett

Signature

Thomas W. Hammett
Senior Vice President
Soil Solutions, Inc.

SOIL SOLUTIONS

CERTIFICATE OF ACCEPTANCE

Soil Solutions, Inc. does hereby certify that 3 drums of non-hazardous contaminated material received on 03/05/2002 from:

Generator: The Pantry #486

Originating at: 6605 Raeford Road
Fayetteville, NC

SSI Waste ID#: 030211

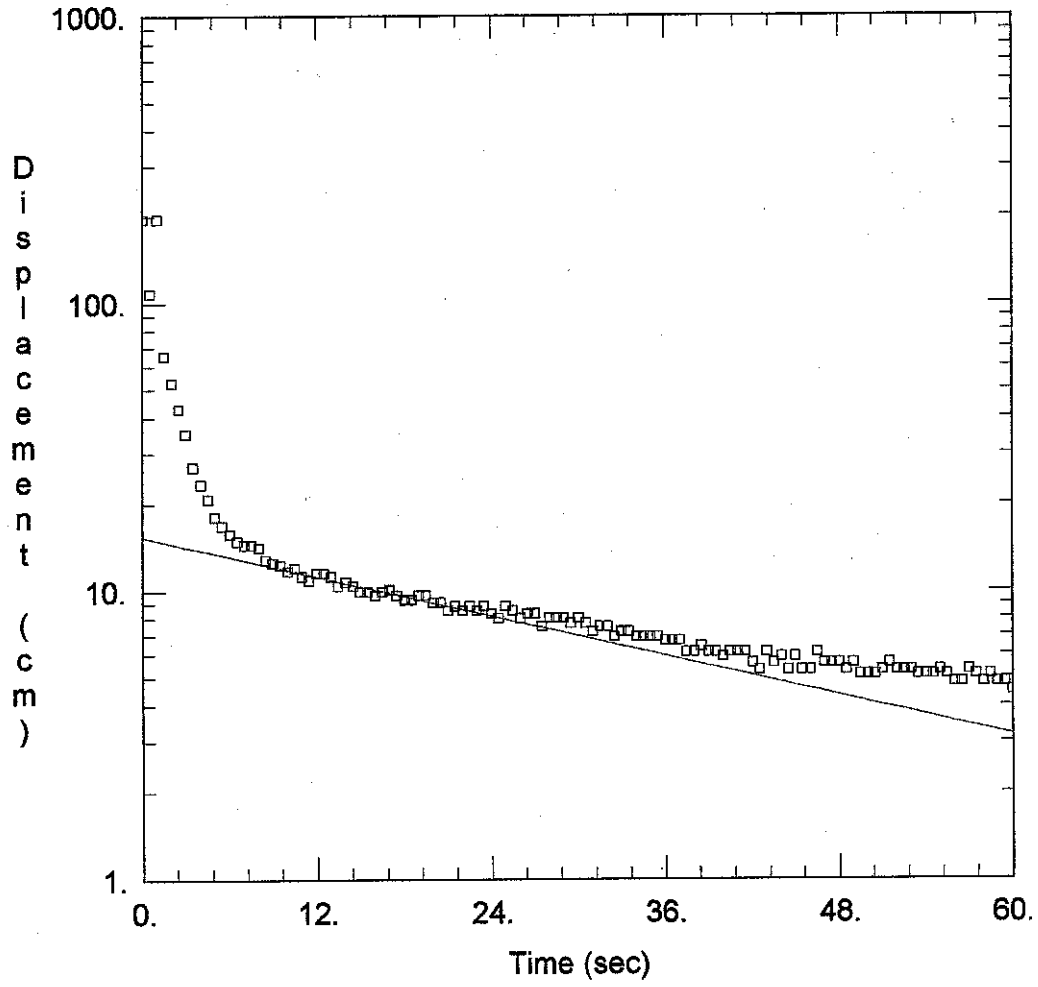
has been accepted by Soil Solutions, Inc. and will be remediated in their Soil Treatment Facility in Winston-Salem, North Carolina. Soil Solutions, Inc. guarantees the contaminated material will be treated to below regulatory standards established by the North Carolina Department of Environment and Natural Resources for clean soil.

Thomas W. Hammett

Signature

Thomas W. Hammett
Senior Vice President
Soil Solutions, Inc.

APPENDIX C



WELL TEST ANALYSIS

Data Set: C:\DOCUME~1\MICHAE~1\DESKTOP\MIKE'S~1\SITEFI~1\PA486~1\SLUGTE~1\MW-6.AQT
Date: 04/25/03 Time: 16:42:32

PROJECT INFORMATION

Client: The Pantry, Inc.
Project: 501430
Test Location: The Pantry #486
Test Well: MW-6
Test Date: 4/16/03

AQUIFER DATA

Saturated Thickness: 3048. cm
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 196. cm
Casing Radius: 5.08 cm
Screen Length: 609.6 cm
Water Column Height: 320.7 cm
Wellbore Radius: 20.32 cm
Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 11.64 ft/day
y0 = 15.4 cm

Data Set: C:\DOCUME~1\MICHAE~1\DESKTOP\MIKE'S~1\SITEFI~1\PA486~1\SLUGTE~1\MW-6.AQT
Date: 04/25/03
Time: 16:42:38

PROJECT INFORMATION

Client: The Pantry, Inc.
Project: 501430
Location: The Pantry #486
Test Date: 4/16/03
Test Well: MW-6

AQUIFER DATA

Saturated Thickness: 3048. cm
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-6

X Location: 0. cm
Y Location: 0. cm

No. of observations: 599

Observation Data

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
0.5	107.5	100.5	2.4	200.5	1.3
1.	196.	101.	2.1	201.	1.3
1.5	65.6	101.5	2.1	201.5	1.1
2.	52.5	102.	2.1	202.	1.3
2.5	42.9	102.5	2.9	202.5	0.8
3.	35.2	103.	2.7	203.	1.6
3.5	26.9	103.5	2.7	203.5	1.1
4.	23.5	104.	1.9	204.	1.3
4.5	20.8	104.5	1.9	204.5	1.1
5.	18.1	105.	1.9	205.	0.8
5.5	16.8	105.5	2.1	205.5	1.1
6.	15.7	106.	1.9	206.	1.1
6.5	14.9	106.5	1.9	206.5	1.6
7.	14.4	107.	1.6	207.	0.8
7.5	14.4	107.5	2.1	207.5	0.8
8.	14.1	108.	1.9	208.	0.8
8.5	12.8	108.5	2.1	208.5	1.1
9.	12.5	109.	2.1	209.	0.8
9.5	12.3	109.5	1.9	209.5	1.3
10.	11.7	110.	2.4	210.	1.3

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
10.5	12.	110.5	2.1	210.5	0.8
11.	11.2	111.	1.9	211.	1.3
11.5	10.9	111.5	1.9	211.5	0.8
12.	11.5	112.	1.6	212.	0.8
12.5	11.5	112.5	1.6	212.5	0.5
13.	11.2	113.	2.1	213.	0.5
13.5	10.4	113.5	1.9	213.5	0.8
14.	10.7	114.	2.1	214.	1.1
14.5	10.4	114.5	2.1	214.5	0.8
15.	9.9	115.	1.9	215.	1.1
15.5	9.9	115.5	2.1	215.5	1.1
16.	9.6	116.	2.4	216.	1.1
16.5	9.9	116.5	1.9	216.5	0.8
17.	10.1	117.	2.1	217.	1.3
17.5	9.6	117.5	2.1	217.5	1.1
18.	9.3	118.	2.7	218.	0.8
18.5	9.3	118.5	2.1	218.5	1.3
19.	9.6	119.	2.1	219.	0.8
19.5	9.6	119.5	1.9	219.5	0.8
20.	9.1	120.	2.1	220.	0.5
20.5	9.1	120.5	1.9	220.5	0.8
21.	8.5	121.	2.1	221.	1.1
21.5	8.8	121.5	1.9	221.5	1.6
22.	8.5	122.	1.9	222.	1.3
22.5	8.8	122.5	1.6	222.5	0.8
23.	8.5	123.	1.6	223.	0.8
23.5	8.8	123.5	1.6	223.5	1.3
24.	8.3	124.	1.9	224.	1.1
24.5	8.	124.5	1.9	224.5	1.1
25.	8.8	125.	1.9	225.	0.5
25.5	8.5	125.5	1.6	225.5	0.5
26.	8.	126.	1.3	226.	1.1
26.5	8.3	126.5	1.6	226.5	0.5
27.	8.3	127.	1.6	227.	0.8
27.5	7.5	127.5	1.9	227.5	0.8
28.	8.	128.	1.6	228.	1.3
28.5	8.	128.5	1.3	228.5	0.8
29.	8.	129.	1.9	229.	1.1
29.5	7.7	129.5	1.6	229.5	0.8
30.	8.	130.	1.9	230.	0.3
30.5	7.7	130.5	1.6	230.5	0.5
31.	7.2	131.	1.3	231.	1.1
31.5	7.5	131.5	1.6	231.5	0.8
32.	7.5	132.	1.9	232.	0.8
32.5	6.9	132.5	2.1	232.5	0.5
33.	7.2	133.	1.3	233.	0.5
33.5	7.2	133.5	1.3	233.5	0.8
34.	6.9	134.	1.9	234.	1.3
34.5	6.9	134.5	1.3	234.5	1.1

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
35.	6.9	135.	1.1	235.	0.5
35.5	6.9	135.5	1.1	235.5	0.5
36.	6.7	136.	1.3	236.	0.
36.5	6.7	136.5	0.5	236.5	0.8
37.	6.7	137.	0.8	237.	1.1
37.5	6.1	137.5	1.1	237.5	1.3
38.	6.1	138.	0.8	238.	1.6
38.5	6.4	138.5	0.8	238.5	1.1
39.	6.1	139.	1.1	239.	1.3
39.5	6.1	139.5	1.3	239.5	1.3
40.	5.9	140.	1.1	240.	1.3
40.5	6.1	140.5	1.6	240.5	1.1
41.	6.1	141.	1.1	241.	1.1
41.5	6.1	141.5	1.3	241.5	1.1
42.	5.6	142.	1.1	242.	0.8
42.5	5.3	142.5	1.3	242.5	0.8
43.	6.1	143.	1.6	243.	0.5
43.5	5.6	143.5	1.1	243.5	0.5
44.	5.9	144.	1.1	244.	0.5
44.5	5.3	144.5	1.3	244.5	1.1
45.	5.9	145.	1.3	245.	0.5
45.5	5.3	145.5	1.3	245.5	1.1
46.	5.3	146.	1.9	246.	1.3
46.5	6.1	146.5	1.3	246.5	1.1
47.	5.6	147.	1.3	247.	1.3
47.5	5.6	147.5	1.3	247.5	1.6
48.	5.6	148.	1.3	248.	-0.3
48.5	5.3	148.5	0.8	248.5	1.1
49.	5.6	149.	1.1	249.	1.3
49.5	5.1	149.5	0.8	249.5	1.1
50.	5.1	150.	1.1	250.	1.3
50.5	5.1	150.5	1.1	250.5	1.3
51.	5.3	151.	1.1	251.	0.8
51.5	5.6	151.5	1.3	251.5	1.3
52.	5.3	152.	1.1	252.	1.3
52.5	5.3	152.5	1.3	252.5	1.3
53.	5.3	153.	1.6	253.	0.8
53.5	5.1	153.5	0.8	253.5	0.8
54.	5.1	154.	1.1	254.	0.5
54.5	5.1	154.5	1.3	254.5	0.8
55.	5.3	155.	1.1	255.	0.8
55.5	5.1	155.5	1.3	255.5	0.5
56.	4.8	156.	1.1	256.	0.8
56.5	4.8	156.5	1.3	256.5	0.8
57.	5.3	157.	0.5	257.	0.8
57.5	5.1	157.5	1.1	257.5	0.8
58.	4.8	158.	1.1	258.	0.8
58.5	5.1	158.5	1.3	258.5	0.8
59.	4.8	159.	1.3	259.	1.3

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
59.5	4.8	159.5	1.3	259.5	1.3
60.	4.5	160.	1.3	260.	1.1
60.5	4.8	160.5	1.6	260.5	0.8
61.	4.5	161.	1.3	261.	0.5
61.5	4.5	161.5	1.1	261.5	1.1
62.	4.5	162.	1.6	262.	0.8
62.5	4.5	162.5	1.6	262.5	0.8
63.	4.8	163.	1.3	263.	0.8
63.5	4.8	163.5	1.1	263.5	0.8
64.	4.8	164.	1.3	264.	1.1
64.5	4.5	164.5	0.8	264.5	1.3
65.	4.3	165.	1.6	265.	1.3
65.5	4.	165.5	1.3	265.5	1.1
66.	4.3	166.	1.6	266.	1.9
66.5	4.5	166.5	1.6	266.5	1.3
67.	4.	167.	1.9	267.	1.6
67.5	4.5	167.5	1.6	267.5	1.3
68.	4.	168.	1.1	268.	1.3
68.5	4.3	168.5	1.6	268.5	1.1
69.	3.5	169.	1.3	269.	0.8
69.5	4.	169.5	1.1	269.5	0.8
70.	4.	170.	1.3	270.	1.3
70.5	4.	170.5	1.6	270.5	1.1
71.	3.7	171.	1.9	271.	1.1
71.5	4.	171.5	1.3	271.5	1.3
72.	4.3	172.	1.3	272.	1.1
72.5	3.7	172.5	1.9	272.5	1.3
73.	4.	173.	1.6	273.	1.3
73.5	3.7	173.5	1.6	273.5	1.3
74.	4.	174.	1.3	274.	1.6
74.5	3.5	174.5	1.3	274.5	1.6
75.	3.5	175.	1.1	275.	0.8
75.5	3.7	175.5	1.1	275.5	0.5
76.	3.7	176.	1.3	276.	0.5
76.5	4.	176.5	1.1	276.5	0.8
77.	4.	177.	1.3	277.	1.1
77.5	4.3	177.5	1.9	277.5	0.8
78.	3.5	178.	1.6	278.	0.8
78.5	4.	178.5	1.6	278.5	1.1
79.	3.7	179.	1.1	279.	1.3
79.5	4.	179.5	1.3	279.5	1.3
80.	3.5	180.	1.1	280.	0.8
80.5	3.7	180.5	1.3	280.5	1.3
81.	3.7	181.	1.3	281.	1.3
81.5	3.5	181.5	1.6	281.5	1.6
82.	3.2	182.	1.3	282.	0.8
82.5	3.5	182.5	1.3	282.5	0.8
83.	3.2	183.	1.9	283.	1.1
83.5	3.5	183.5	2.1	283.5	0.5

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
84.	3.5	184.	1.6	284.	1.1
84.5	3.2	184.5	1.6	284.5	0.5
85.	2.9	185.	1.6	285.	1.1
85.5	2.9	185.5	1.1	285.5	1.6
86.	3.2	186.	1.6	286.	0.8
86.5	3.2	186.5	1.3	286.5	1.1
87.	2.9	187.	1.3	287.	1.1
87.5	2.9	187.5	1.3	287.5	1.3
88.	3.2	188.	1.6	288.	1.6
88.5	3.5	188.5	1.3	288.5	1.6
89.	2.7	189.	1.9	289.	1.1
89.5	3.2	189.5	0.8	289.5	0.8
90.	2.9	190.	1.3	290.	0.8
90.5	3.2	190.5	1.3	290.5	1.1
91.	3.2	191.	0.8	291.	0.8
91.5	2.9	191.5	1.3	291.5	0.8
92.	2.7	192.	1.1	292.	1.3
92.5	2.7	192.5	0.8	292.5	1.6
93.	2.4	193.	1.6	293.	0.8
93.5	3.2	193.5	1.3	293.5	1.3
94.	2.4	194.	1.3	294.	1.6
94.5	2.7	194.5	0.8	294.5	1.1
95.	2.4	195.	1.1	295.	0.8
95.5	2.4	195.5	1.3	295.5	1.3
96.	2.4	196.	0.8	296.	1.3
96.5	2.4	196.5	0.8	296.5	0.8
97.	2.1	197.	0.8	297.	0.8
97.5	2.1	197.5	1.3	297.5	0.8
98.	1.6	198.	1.3	298.	0.8
98.5	2.1	198.5	1.3	298.5	1.1
99.	2.1	199.	1.6	299.	1.1
99.5	2.1	199.5	1.6	299.5	0.8
100.	2.1	200.	1.3		

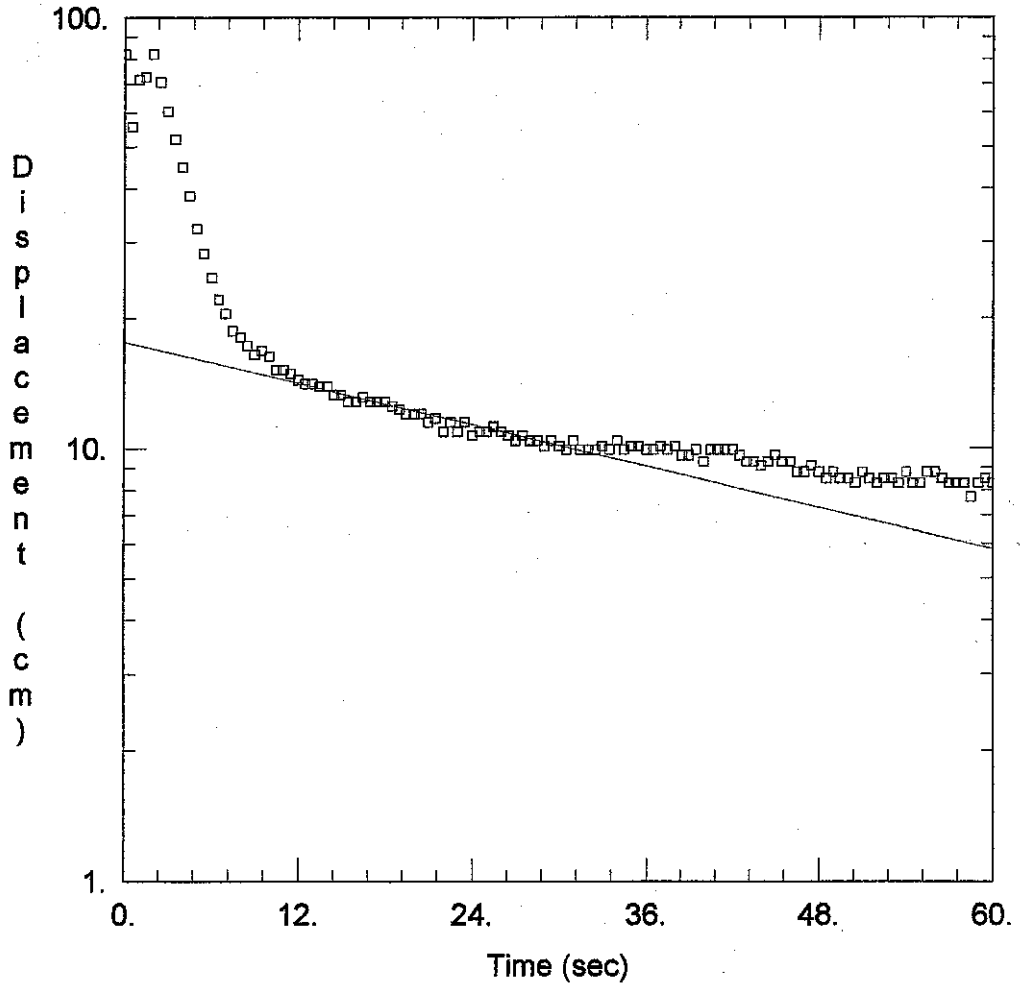
SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	11.64	ft/day
y0	15.4	cm



WELL TEST ANALYSIS

Data Set: C:\DOCUME~1\MICHAE~1\DESKTOP\MIKE'S~1\SITEFI~1\PA486~1\SLUGTE~1\MW-10.AQT
Date: 04/25/03 Time: 16:42:49

PROJECT INFORMATION

Client: The Pantry, Inc.
Project: 501430
Test Location: The Pantry #486
Test Well: MW-9
Test Date: 4/16/03

AQUIFER DATA

Saturated Thickness: 3048. cm
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Initial Displacement: 82.1 cm
Casing Radius: 5.08 cm
Screen Length: 609.6 cm
Water Column Height: 150.9 cm
Wellbore Radius: 20.32 cm
Gravel Pack Porosity: 0.2

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 6.362 ft/day
y0 = 17.68 cm

Data Set: C:\DOCUME~1\MICHAE~1\DESKTOP\MIKE'S~1\SITEFI~1\PA486~1\SLUGTE~1\MW-10.AQT
Date: 04/25/03
Time: 16:42:54

PROJECT INFORMATION

Client: The Pantry, Inc.
Project: 501430
Location: The Pantry #486
Test Date: 4/16/03
Test Well: MW-9

AQUIFER DATA

Saturated Thickness: 3048. cm
Anisotropy Ratio (Kz/Kr): 1.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: MW-10

X Location: 0. cm
Y Location: 0. cm

No. of observations: 615

Observation Data

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
0.5	55.7	103.	6.1	205.5	4.
1.	71.7	103.5	5.9	206.	4.
1.5	72.8	104.	6.4	206.5	3.5
2.	82.1	104.5	6.4	207.	4.3
2.5	70.7	105.	6.4	207.5	4.
3.	60.5	105.5	6.1	208.	4.
3.5	52.	106.	5.9	208.5	3.7
4.	44.8	106.5	6.1	209.	3.7
4.5	38.4	107.	6.4	209.5	3.7
5.	32.3	107.5	6.1	210.	3.2
5.5	28.3	108.	6.1	210.5	3.2
6.	24.8	108.5	6.4	211.	3.5
6.5	22.1	109.	6.9	211.5	3.5
7.	20.5	109.5	6.4	212.	4.
7.5	18.7	110.	6.4	212.5	3.7
8.	18.1	110.5	5.6	213.	4.
8.5	17.3	111.	5.9	213.5	3.5
9.	16.5	111.5	5.3	214.	4.
9.5	16.8	112.	5.9	214.5	3.5
10.	16.3	112.5	5.9	215.	3.7

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
10.5	15.2	113.	6.1	215.5	4.
11.	15.2	113.5	5.9	216.	3.5
11.5	14.9	114.	6.7	216.5	4.
12.	14.4	114.5	6.1	217.	3.7
12.5	14.1	115.	5.9	217.5	2.9
13.	14.1	115.5	6.1	218.	3.2
13.5	13.9	116.	5.6	218.5	3.5
14.	13.9	116.5	5.9	219.	3.2
14.5	13.3	117.	5.9	219.5	3.2
15.	13.3	117.5	5.3	220.	3.2
15.5	12.8	118.	5.6	220.5	2.9
16.	12.8	118.5	5.1	221.	2.7
16.5	13.1	119.	5.9	221.5	2.9
17.	12.8	119.5	5.9	222.	2.9
17.5	12.8	120.	5.6	222.5	2.7
18.	12.8	120.5	5.6	223.	3.2
18.5	12.5	121.	5.6	223.5	3.2
19.	12.3	121.5	5.6	224.	3.2
19.5	12.	122.	5.9	224.5	3.5
20.	12.	122.5	5.9	225.	2.9
20.5	12.	123.	5.9	225.5	3.2
21.	11.5	123.5	5.9	226.	3.5
21.5	11.7	124.	5.9	226.5	3.2
22.	10.9	124.5	5.3	227.	2.9
22.5	11.5	125.	5.3	227.5	2.7
23.	10.9	125.5	6.1	228.	2.4
23.5	11.5	126.	5.3	228.5	2.9
24.	10.7	126.5	5.6	229.	3.2
24.5	10.9	127.	5.3	229.5	2.4
25.	10.9	127.5	5.1	230.	3.5
25.5	11.2	128.	5.3	230.5	3.5
26.	10.9	128.5	4.8	231.	3.2
26.5	10.7	129.	5.9	231.5	2.7
27.	10.4	129.5	6.1	232.	3.2
27.5	10.7	130.	5.3	232.5	3.2
28.	10.4	130.5	5.6	233.	3.2
28.5	10.4	131.	5.3	233.5	3.2
29.	10.1	131.5	5.3	234.	2.4
29.5	10.4	132.	5.6	234.5	3.2
30.	10.1	132.5	5.9	235.	3.2
30.5	9.9	133.	5.6	235.5	3.2
31.	10.4	133.5	5.6	236.	3.2
31.5	9.9	134.	5.1	236.5	3.2
32.	9.9	134.5	5.3	237.	3.2
32.5	9.9	135.	6.1	237.5	3.2
33.	10.1	135.5	5.6	238.	2.9
33.5	9.9	136.	5.3	238.5	3.2
34.	10.4	136.5	5.1	239.	3.2
34.5	9.9	137.	5.1	239.5	3.2

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
35.	10.1	137.5	5.3	240.	2.9
35.5	10.1	138.	5.3	240.5	2.4
36.	9.9	138.5	5.1	241.	2.7
36.5	9.9	139.	5.6	241.5	2.7
37.	10.1	139.5	5.3	242.	2.4
37.5	9.9	140.	5.9	242.5	2.7
38.	10.1	140.5	5.6	243.	2.9
38.5	9.6	141.	5.1	243.5	2.4
39.	9.6	141.5	5.6	244.	2.9
39.5	9.9	142.	5.1	244.5	2.4
40.	9.3	142.5	5.6	245.	2.7
40.5	9.9	143.	5.6	245.5	2.1
41.	9.9	143.5	5.3	246.	2.7
41.5	9.9	144.	5.3	246.5	2.7
42.	9.9	144.5	5.3	247.	1.9
42.5	9.6	145.	5.6	247.5	2.4
43.	9.3	145.5	5.1	248.	2.9
43.5	9.3	146.	5.1	248.5	2.1
44.	9.1	146.5	5.6	249.	2.4
44.5	9.3	147.	5.6	249.5	2.4
45.	9.6	147.5	5.3	250.	2.4
45.5	9.3	148.	5.6	250.5	2.4
46.	9.3	148.5	5.6	251.	2.4
46.5	8.8	149.	5.1	251.5	2.7
47.	8.8	149.5	5.1	252.	2.4
47.5	9.1	150.	4.8	252.5	1.9
48.	8.8	150.5	5.1	253.	2.1
48.5	8.5	151.	5.1	253.5	2.4
49.	8.8	151.5	4.8	254.	2.7
49.5	8.5	152.	4.5	254.5	2.7
50.	8.5	152.5	4.8	255.	2.7
50.5	8.3	153.	5.1	255.5	2.9
51.	8.8	153.5	5.1	256.	2.7
51.5	8.5	154.	4.5	256.5	2.4
52.	8.3	154.5	4.8	257.	2.1
52.5	8.5	155.	4.8	257.5	2.4
53.	8.5	155.5	5.1	258.	2.4
53.5	8.3	156.	4.8	258.5	2.4
54.	8.8	156.5	4.3	259.	2.4
54.5	8.3	157.	4.8	259.5	2.7
55.	8.3	157.5	4.8	260.	2.1
55.5	8.8	158.	5.1	260.5	2.1
56.	8.8	158.5	4.8	261.	2.4
56.5	8.5	159.	4.8	261.5	2.4
57.	8.3	159.5	4.8	262.	1.6
57.5	8.3	160.	4.3	262.5	2.1
58.	8.3	160.5	4.8	263.	2.1
58.5	7.7	161.	5.1	263.5	2.1
59.	8.3	161.5	4.8	264.	2.1

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
59.5	8.5	162.	4.5	264.5	1.9
60.	8.3	162.5	4.5	265.	1.9
60.5	8.3	163.	4.3	265.5	2.4
61.	8.3	163.5	4.5	266.	2.4
61.5	8.3	164.	4.5	266.5	2.1
62.	8.3	164.5	4.5	267.	2.4
62.5	8.3	165.	4.8	267.5	2.4
63.	8.3	165.5	5.1	268.	2.4
63.5	8.	166.	4.3	268.5	2.1
64.	8.3	166.5	4.5	269.	2.1
64.5	8.5	167.	4.3	269.5	1.9
65.	8.5	167.5	4.5	270.	2.1
65.5	8.3	168.	4.5	270.5	2.1
66.	8.	168.5	4.3	271.	1.9
66.5	8.5	169.	4.5	271.5	1.9
67.	8.	169.5	4.5	272.	2.1
67.5	8.	170.	4.3	272.5	1.9
68.	8.3	170.5	4.5	273.	1.9
68.5	7.7	171.	4.3	273.5	2.1
69.	7.7	171.5	4.3	274.	1.9
69.5	7.7	172.	4.3	274.5	2.1
70.	7.2	172.5	4.5	275.	2.4
70.5	7.5	173.	4.	275.5	2.1
71.	7.5	173.5	4.	276.	1.9
71.5	7.5	174.	4.3	276.5	1.9
72.	7.7	174.5	4.5	277.	1.9
72.5	7.7	175.	4.3	277.5	2.4
73.	7.2	175.5	4.3	278.	1.9
73.5	7.5	176.	4.3	278.5	1.6
74.	6.9	176.5	4.3	279.	1.9
74.5	7.2	177.	4.5	279.5	1.9
75.	6.9	177.5	4.	280.	1.6
75.5	7.7	178.	4.	280.5	2.4
76.	7.5	178.5	4.	281.	2.4
76.5	7.5	179.	4.3	281.5	2.1
77.	7.2	179.5	4.5	282.	1.9
77.5	7.2	180.	4.5	282.5	2.1
78.	7.2	180.5	4.5	283.	1.9
78.5	7.5	181.	4.8	283.5	1.9
79.	7.2	181.5	4.8	284.	2.1
79.5	7.2	182.	4.3	284.5	1.9
80.	7.2	182.5	4.5	285.	1.3
80.5	6.9	183.	4.5	285.5	2.1
81.	7.2	183.5	4.5	286.	2.4
81.5	7.2	184.	4.5	286.5	1.9
82.	6.7	184.5	4.3	287.	2.1
82.5	7.5	185.	4.8	287.5	1.9
83.	7.2	185.5	4.8	288.	1.9
83.5	7.7	186.	4.8	288.5	1.9

Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)	Time (sec)	Displacement (cm)
84.	7.2	186.5	4.5	289.	1.9
84.5	7.5	187.	4.3	289.5	1.9
85.	6.9	187.5	4.5	290.	2.1
85.5	6.9	188.	4.5	290.5	2.1
86.	7.5	188.5	4.3	291.	2.4
86.5	7.2	189.	4.3	291.5	2.1
87.	7.2	189.5	4.	292.	2.1
87.5	7.2	190.	3.7	292.5	1.9
88.	7.2	190.5	3.7	293.	2.4
88.5	7.2	191.	4.3	293.5	1.9
89.	7.2	191.5	4.3	294.	2.1
89.5	7.2	192.	4.3	294.5	2.1
90.	6.7	192.5	4.8	295.	2.1
90.5	7.2	193.	4.3	295.5	1.9
91.	6.9	193.5	4.3	296.	1.6
91.5	6.7	194.	4.3	296.5	1.9
92.	7.2	194.5	4.3	297.	1.3
92.5	6.7	195.	4.3	297.5	1.6
93.	6.7	195.5	4.3	298.	1.3
93.5	6.7	196.	3.5	298.5	1.9
94.	6.1	196.5	3.7	299.	1.9
94.5	6.4	197.	4.	299.5	1.6
95.	6.4	197.5	4.3	300.	1.6
95.5	6.7	198.	4.	300.5	1.3
96.	6.4	198.5	4.	301.	1.6
96.5	6.7	199.	4.3	301.5	1.6
97.	6.9	199.5	3.5	302.	1.1
97.5	6.9	200.	3.5	302.5	1.1
98.	6.7	200.5	3.5	303.	1.1
98.5	6.7	201.	3.7	303.5	1.1
99.	6.7	201.5	3.5	304.	1.3
99.5	6.7	202.	3.7	304.5	1.1
100.	6.7	202.5	4.	305.	1.1
100.5	6.4	203.	3.7	305.5	1.1
101.	6.7	203.5	3.7	306.	0.8
101.5	6.7	204.	4.	306.5	0.8
102.	6.7	204.5	4.	307.	0.8
102.5	6.4	205.	3.7	307.5	0.8

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate

K	6.362	ft/day
y0	17.68	cm

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KANGAROO STATION

March 22, 2012

Frank Moody
C/o 6157 Crystal Dr., LLC
Dunn, North Carolina

Attention: Mr. Frank Moody

Reference: Phase II Environmental Site Assessment
Kangaroo Station
6605 Raeford Road (Highway 401)
Fayetteville, Cumberland County, North Carolina
EA Project No. 12-9183.1

Dear Mr. Moody:

EnviroAssessments (EA) has completed a Phase II Environmental Site Assessment (ESA) of the Kangaroo Station property (the "Project"), located at 6605 Raeford Road (Highway 401) in Fayetteville, Cumberland County, North Carolina. A Site Location Map is attached as **Figure 1**. The purpose of the Phase II ESA was to evaluate the Project with respect to potential contamination issues and concerns for a pending real estate transaction because the site operates as a gasoline station. Therefore, 6157 Crystal Dr., LLC requested a Phase II environmental site assessment (ESA) be performed for the Project to evaluate the potential for undocumented petroleum releases. Specifically, the Phase II ESA evaluated for the presence of petroleum and/or solvent compounds in the soil and groundwater at the Project from potential undocumented releases associated with the on-site UST system.

1.0 PROJECT HISTORY

The Project operates as a retail gasoline station/convenience store located in the southwest corner of the intersection of Raeford Road and Strickland Bridge Road at 6605 Raeford Road in Fayetteville, North Carolina. The Project is developed with a one-story convenience store building. According to the attached Notification for Underground Storage Tanks, dated May 1986, three 10,000-gallon gasoline USTs were installed in 1986 and are located in a tank basin east of the store building. The tanks were upgraded in 1994 to meet 1998 upgrade requirements. A copy of the most recent UST system inspection (UST-10B Form) on February 25, 2010 is also attached, no violations were reported. The current active UST system is a potential ongoing source of petroleum contamination to soil and/or groundwater at the Project and to nearby off-site properties. Spills and overfills of fuel during bulk fuel transfers to the UST systems and the current automobile filling operations from the dispensers are sources of petroleum contamination to soil and groundwater. The assessment and remediation of

petroleum contamination are state-regulated activities that are often expensive and time-consuming. The presence of contamination may adversely-affect the "financeability" and "marketability" of the Project.

The Client (Frank Moody) authorized EA to complete this Phase II ESA to evaluate the Project with respect to potential contamination issues and concerns for a pending real estate transaction because the site operates as a gasoline station and to determine the likelihood that the Project property has been impacted from the on-site UST system.

Phase II assessment activities were performed by EA personnel and their subcontractors on March 1, 2012, which consisted of collecting eight (8) soil samples (S-1-16, S-2-12, S-3-12, S-4-12, S-5-4, S-6-4, S-7-4 and S-8-4) and three (3) groundwater samples (MW-2, MW-15 and MW-17) from existing on-site groundwater monitoring wells associated with the on-site petroleum release incident (Incident Number 23062) at the Project. In Summary, one of the eight (8) soil samples revealed concentrations of target analytes which exceed their respective NCDENR reportable Action Levels of 10 milligrams per kilograms (mg/kg) for TPH. Laboratory analysis of soil sample S-8-4 revealed a TPH-DRO concentration of 47.6 mg/kg and TPH-GRO concentration of 115 mg/kg, which exceed the NCDENR reportable action level of 10 mg/kg for TPH.

Two (2) of the three (3) groundwater samples (MW-2 and MW-17) revealed concentrations of target analytes which exceed their respective NCAC 2L Groundwater Quality Standards (2L Standard).

Laboratory analysis of groundwater sample MW-2 revealed a Benzene concentration of 697 micrograms per liter (ug/L), which exceeds the 2L Standard of 1 ug/L for Benzene. In addition, groundwater sample MW-2 revealed concentrations of Toluene (3,030 ug/L), total Xylenes (3,000 ug/L), Naphthalene (73.7J ug/L), n-Propylbenzene (115 ug/L), 1,2,4-Trimethylbenzene (992 ug/L), MTBE (95.6 ug/L) and 2-Methylnaphthalene (37.6 ug/L), all of which exceed their respective 2L Standards. A 1-Methylnaphthalene concentration of 19.4 ug/L was also detected in MW-2. Currently there is not a 2L Standard established for 1-Methylnaphthalene. Several other target analytes were also detected in MW-2, all of which were below their respective 2L Standards.

No detectable concentrations of target analytes were identified in groundwater sample MW-15.

Laboratory analysis of groundwater sample MW-17 revealed a Benzene concentration of 105 ug/L, which exceeds the 2L Standard of 1 ug/L for Benzene. In addition, groundwater sample MW-17 revealed concentrations of Ethylbenzene (693 ug/L), total Xylenes (3,560[a] ug/L), n-Butylbenzene (82.6 ug/L), Naphthalene (180 ug/L), n-Propylbenzene (525 ug/L), 1,2,4-Trimethylbenzene (2,700[a] ug/L), 1,2,5-Trimethylbenzene (911 ug/L), MTBE (30.9 ug/L) and 2-Methylnaphthalene (79.8 ug/L), all of which exceed their respective 2L Standards. A 1-Methylnaphthalene concentration of 35.9 ug/L was also detected in MW-17. Several other target analytes were also detected in MW-17, all of which were below their respective 2L Standards.

In addition, EA personnel gauged several of the existing groundwater monitoring wells and measured free phase petroleum thicknesses of approximately 0.05 feet in monitoring well MW-4 (located to the northwest of the UST basin) and approximately 0.90 feet in an unidentified four-inch diameter recovery well (located to the east of the UST basin).

On March 5, 2012, EA personnel contacted Mr. James Brown with the North Carolina Department of Environment and Natural Resources (NCDENR), Fayetteville Regional Office, Division of Waste Management, Underground Storage Tank (UST) Program to obtain information and status of several monitoring and recovery wells located at the Project. According to Mr. Brown, the Project, identified as Pantry 486 (Facility ID 0-023655), has an open release incident (No. 23062) that was reported on March 21, 2001. Mr. Brown stated that the Project is undergoing Free Product Assessment activities and the most recent monitoring report was dated January 17, 2012. No reports or additional information was made available to EA.

The Project site is an "open" contamination incident that is being addressed by The Pantry, Inc., the responsible party or RP. The contamination found during this Phase II ESA appears to be associated with the past release and in accordance with NCDENR guidelines, it would be addressed by the RP as part of the ongoing work.

Based on the conclusions of the Phase II ESA, **EA recommends the following:**

- EA recommends reporting the findings of this investigation to the North Carolina Department of Environment and Natural Resources (NCDENR), Fayetteville Regional Office, Division of Waste Management, Underground Storage Tank (UST) Program. The NCDENR will determine if the identified soil and groundwater contamination correlates with the data on file for the open release incident (Incident # 23062) and if additional soil and/or groundwater assessment will be required based on the findings. The NCDENR will provide a determination as to whether any additional assessment or remediation work, if required, will remain the responsibility of The Pantry or whether the data points to a new contaminant source and warrants additional investigation by a prospective buyer of the property.

2.0 FIELD ACTIVITIES

2.1 Subsurface Utility Locating

EA personnel contacted the North Carolina One Call Center and requested that the local utility services conduct an Electromagnetic (EM) Survey in the area of concern at the Project to determine the orientation and location of underground utility lines for optimal sampling locations. At the time of the assessment, underground utility lines appeared to be marked up to the Project boundaries. However, public utilities are not authorized to locate underground lines on private property.

On March 1, 2012, EA and its subcontractor, KCI Associates (KCI), conducted an on-site ground-penetrating radar (GPR) survey and EM Survey at the Project to determine the orientation and location of the existing petroleum underground storage tanks (USTs) and on-site subsurface utilities in order to determine optimal sampling locations. All items located were marked directly on the surface using paint.

2.2 Soil Assessment

On March 1, 2012, EA and its subcontractor utilized a Geoprobe® sampling device to advance soil sample points in eight (8) locations (S-1 through S-8) of the Project. A total of eight (8) soil samples (S-1-16, S-2-12, S-3-12, S-4-12, S-5-4, S-6-4, S-7-4 and S-8-4) were collected from the eight (8) soil sample point locations depicted on the attached **Figure 2.** EA personnel screened the soil columns for Volatile Organic Compounds (VOCs) from each boring at four-foot intervals using a Photo Ionization Detector (PID), and visual and olfactory indicators. PID screening results for each soil boring are detailed in **Table 1** below. Soil boring logs are included in **Appendix 1** which detail soil descriptions, sampling depths and field screening results.

Soil boring S-1 was advanced to the south of the UST basin to a depth of sixteen (16) feet below grade (BG). Soils encountered consisted of orange sand at depths of 0-3 feet BG underlain by brown-tan sand at depths of 3-5 feet BG, orange silt and sand at depths of 5-8 feet BG, Tan and orange sand and silt at depths of 8-12 feet BG and tan silt and sand at depths of 12-16 feet BG. Petroleum odors were noted in soil boring S-1 at depths of 3-4 feet BG and 5-16 feet BG. One (1) soil sample (S-1-16) was collected at a depth of sixteen (16) feet BG from soil boring S-1.

Soil boring S-2 was advanced to the west of the UST basin to a depth of twelve (12) feet BG. Soils encountered consisted of orange sand at depths of 0-4 feet BG underlain by brown sand and clay at depths of 4-8 feet BG and orange sand at depths of 8-12 feet BG. Soils were observed to be moist at approximately seven (7) feet BG. Petroleum odors were noted in soil boring S-2 at depths of 4-12 feet BG. One (1) soil sample (S-2-12) was collected at a depth of twelve (12) feet BG from soil boring S-2.

Soil boring S-3 was advanced to the east of the UST basin to a depth of twelve (12) feet BG. Soils encountered consisted of brown and black sand at depths of 0-4 feet BG underlain by orange silty clay with some sand at depths of 4-8 feet BG and orange-tan sand and silt at depths of 8-12 feet BG. Petroleum odors were noted in soil boring S-3 at depths of 4-12 feet BG. One (1) soil sample (S-3-12) was collected at a depth of twelve (12) feet BG from soil boring S-3.

Soil boring S-4 was advanced to the north of the UST basin to a depth of twelve (12) feet BG. Soils encountered consisted of brown sand at depths of 0-4 feet BG underlain by brown clay and sand at depths of 4-8 feet BG and orange silt and sand at depths of 8-12 feet BG. Petroleum odors were noted in soil boring S-4 at depths of 4-12 feet BG. One (1) soil sample (S-4-12) was collected at a depth of twelve (12) feet BG from soil boring S-4.

Soil boring S-5 was advanced to the east and down-gradient of the gasoline product lines, approximately half the distance between the UST basin and the fuel dispensers to a depth of four (4) feet BG. Soils encountered consisted of brown and orange sand at depths of 0-4 feet BG. Petroleum odors were noted throughout soil boring S-5. One (1) soil sample (S-5-4) was collected at a depth of four (4) feet BG from soil boring S-5.

Soil boring S-6 was advanced adjacent to the east of the northeastern-most fuel dispenser island to a depth of four (4) feet BG. Soils encountered consisted of orange sand at depths of 0-4 feet BG. No petroleum odors were noted throughout soil boring S-6. One (1) soil sample (S-6-4) was collected at a depth of four (4) feet BG from soil boring S-6.

Soil boring S-7 was advanced adjacent to the east of the southern-most fuel dispenser island to a depth of four (4) feet BG. Soils encountered consisted of orange sand at depths of 0-4 feet BG. No petroleum odors were noted throughout soil boring S-7. One (1) soil sample (S-7-4) was collected at a depth of four (4) feet BG from soil boring S-7.

Soil boring S-8 was advanced adjacent to the east of the southern-most fuel dispenser island to a depth of four (4) feet BG. Soils encountered consisted of orange-brown sand at depths of 0-4 feet BG. Petroleum odors were noted throughout soil boring S-8. One (1) soil sample (S-8-4) was collected at a depth of four (4) feet BG from soil boring S-8.

Table 1 – PID Soil Screening Results

Soil Boring	Depth (Feet Below Grade)	PID Reading – Parts Per Million
S-1	4	0
	8	1.6
	12	83.2
	16	677
S-2	4	0
	8	21.8
	12	95.7
S-3	4	21.2
	8	25.8
	12	212
S-4	4	2.4
	8	20.2
	12	173.2
S-5	4	6.2
S-6	4	0
S-7	4	0
S-8	4	1,018

The soil samples were placed into appropriate sample containers and labeled with the project name, time and date of collection, and analysis to be performed. The filled sample containers were placed in a cooler containing ice and transported/shipped to Accutest Laboratories in Orlando, Florida (a North Carolina-certified laboratory). A chain-of-custody form was maintained with the samples. All soil samples were submitted and analyzed for Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO) and TPH – Diesel Range Organics (DRO). A copy of the laboratory analytical report is attached as **Appendix 2**. The soil results are discussed in **Section 3.0** of this report and are summarized in **Table 2**.

2.3 Groundwater Assessment

On March 1, 2012, EA personnel sampled three (3) existing on-site groundwater monitoring wells (MW-2, MW-15 and MW-17) associated with the on-site petroleum release incident (Incident Number 23062). Groundwater monitoring wells MW-2, MW-15 and MW-17 are depicted on the attached **Figure 2,** along with several other unidentified monitoring wells, and Monitoring Well Construction Information for the sampled wells is included in **Table 3**.

Groundwater monitoring well MW-2 is located to the south of the UST basin, groundwater monitoring well MW-15 is located to the northeast of the UST basin and groundwater monitoring well MW-17 is located to the northeast of the fuel dispensers. The depth of groundwater measured in the monitoring wells ranged from 18.70 feet below top of well casing (TOC) in monitoring well MW-17 to 19.35 feet TOC in monitoring well MW-2.

In addition, EA personnel gauged several of the existing groundwater monitoring wells and measured free phase petroleum thicknesses of approximately 0.05 feet in monitoring well MW-4 (located to the northwest of the UST basin) and approximately 0.90 feet in an unidentified four-inch diameter recovery well (located to the east of the UST basin).

The groundwater samples were placed into appropriate sample containers and labeled with the project name, time and date of collection, and analysis to be performed. The filled sample containers were placed in a cooler containing ice and transported/shipped to Accutest Laboratories in Orlando, Florida (a North Carolina-certified laboratory). A chain-of-custody form was maintained with the samples. All Groundwater samples were submitted and analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 and for Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270. A copy of the laboratory analytical report is attached as **Appendix 2**. The groundwater results are discussed in **Section 3.0** of this report and are summarized in **Table 4**.

3.0 LABORATORY ANALYTICAL RESULTS

3.1 Soil Assessment

EA collected a total of eight (8) soil samples (S-1-16, S-2-12, S-3-12, S-4-12, S-5-4, S-6-4, S-7-4 and S-8-4) in the locations shown on **Figure 2**. A copy of the laboratory analytical report is attached as **Appendix 2** and a summary of the soil sampling results is presented in **Table 2**. In Summary, one of the eight (8) soil samples revealed concentrations of target analytes which exceed their respective NCDENR reportable Action Levels of 10 milligrams per kilograms (mg/kg) for TPH.

Laboratory analysis of soil sample S-8-4 revealed a TPH-DRO concentration of 47.6 mg/kg and TPH-GRO concentration of 115 mg/kg, which exceed the NCDENR reportable action level of 10 mg/kg for TPH.

Laboratory analysis of soil sample S-1-16 revealed a TPH-DRO concentration of 3.71J mg/kg and TPH-GRO concentration of 3.61J mg/kg, which are below the NCDENR reportable action level of 10 mg/kg for TPH. The "J" value indicates an estimated value.

No detectable concentrations of target analytes were identified in soil samples S-2-12, S-3-12, S-4-12, S-5-4, S-6-4 and S-7-4.

Refer to **Section 4.0** for EA's recommendations.

3.2 Groundwater Assessment

EA collected a total of three (3) groundwater samples from three (3) existing on-site groundwater monitoring wells (MW-2, MW-15 and MW-17) which are shown on **Figure 2**. A copy of the laboratory analytical report is attached as **Appendix 2** and a summary of the groundwater sampling results is presented in **Table 4.** In summary, two (2) of the three (3) groundwater samples (MW-2 and MW-17) revealed concentrations of target analytes which exceed their respective NCAC 2L Groundwater Quality Standards (2L Standard).

Laboratory analysis of groundwater sample MW-2 revealed a Benzene concentration of 697 micrograms per liter (ug/L), which exceeds the 2L Standard of 1 ug/L for Benzene. In addition, groundwater sample MW-2 revealed concentrations of Toluene (3,030 ug/L), total Xylenes (3,000 ug/L), Naphthalene (73.7J ug/L), n-Propylbenzene (115 ug/L), 1,2,4-Trimethylbenzene (992 ug/L), MTBE (95.6 ug/L) and 2-Methylnaphthalene (37.6 ug/L), all of which exceed their respective 2L Standards. A 1-Methylnaphthalene concentration of 19.4 ug/L was also detected in MW-2. Currently there is not a 2L Groundwater Quality Standard established for 1-Methylnaphthalene. Several other target analytes were also detected in MW-2, all of which were below their respective 2L Standards.

No detectable concentrations of target analytes were identified in groundwater sample MW-15.

Laboratory analysis of groundwater sample MW-17 revealed a Benzene concentration of 105 ug/L, which exceeds the 2L Standard of 1 ug/L for Benzene. In addition, groundwater sample MW-17 revealed concentrations of Ethylbenzene (693 ug/L), total Xylenes (3,560[a] ug/L), n-Butylbenzene (82.6 ug/L), Naphthalene (180 ug/L), n-Propylbenzene (525 ug/L), 1,2,4-Trimethylbenzene (2,700[a] ug/L), 1,2,5-Trimethylbenzene (911 ug/L), MTBE (30.9 ug/L) and 2-Methylnaphthalene (79.8 ug/L), all of which exceed their respective 2L Standards. A 1-Methylnaphthalene concentration of 35.9 ug/L was also detected in MW-17. Several other target analytes were also detected in MW-17, all of which were below their respective 2L Standards.

Refer to **Section 4.0** for EA's recommendations.

4.0 CONCLUSIONS AND RECOMMENDATIONS

In Summary, one of the eight (8) soil samples revealed concentrations of target analytes which exceed their respective NCDENR reportable Action Levels of 10 milligrams per kilograms (mg/kg) for TPH. Laboratory analysis of soil sample S-8-4 revealed a TPH-DRO concentration of 47.6 mg/kg and TPH-GRO concentration of 115 mg/kg, which exceed the NCDENR reportable action level of 10 mg/kg for TPH.

Two (2) of the three (3) groundwater samples (MW-2 and MW-17) revealed concentrations of several target analytes which exceed their respective 2L Standard.

Laboratory analysis of groundwater sample MW-2 revealed a Benzene concentration of 697 micrograms per liter (ug/L), which exceeds the 2L Standard of 1 ug/L for Benzene. In addition, groundwater sample MW-2 revealed concentrations of Toluene (3,030 ug/L), total Xylenes (3,000 ug/L), Naphthalene (73.7J ug/L), n-Propylbenzene (115 ug/L), 1,2,4-Trimethylbenzene (992 ug/L), MTBE (95.6 ug/L) and 2-Methylnaphthalene (37.6 ug/L), all of which exceed their respective 2L Standards. A 1-Methylnaphthalene concentration of 19.4 ug/L was also detected in MW-2. Currently there is not a 2L Standard established for 1-Methylnaphthalene. Several other target analytes were also detected in MW-2, all of which were below their respective 2L Standard.

No detectable concentrations of target analytes were identified in groundwater sample MW-15.

Laboratory analysis of groundwater sample MW-17 revealed a Benzene concentration of 105 ug/L, which exceeds the NCAC 2L Groundwater Standard of 1 ug/L for Benzene. In addition, groundwater sample MW-17 revealed concentrations of Ethylbenzene (693 ug/L), total Xylenes (3,560[a] ug/L), n-Butylbenzene (82.6 ug/L), Naphthalene (180 ug/L), n-Propylbenzene (525 ug/L), 1,2,4-Trimethylbenzene (2,700[a] ug/L), 1,2,5-Trimethylbenzene (911 ug/L), MTBE (30.9 ug/L) and 2-Methylnaphthalene (79.8 ug/L), all of which exceed their respective 2L Standard. A 1-Methylnaphthalene concentration of 35.9 ug/L was also detected in MW-17. Several other target analytes were also detected in MW-17, all of which were below their respective 2L Standard.

In addition, EA personnel gauged several of the existing groundwater monitoring wells and measured free phase petroleum thicknesses of approximately 0.05 feet in monitoring well MW-4 (located to the northwest of the UST basin) and approximately 0.90 feet in an unidentified four-inch diameter recovery well (located to the east of the UST basin).

On March 5, 2012, EA personnel contacted Mr. James Brown with the NCDENR, Fayetteville Regional Office, Division of Waste Management, UST Program to obtain information and status of several monitoring and recovery wells located at the Project. According to Mr. Brown, the Project, identified as Pantry 486 (Facility ID 0-023655), has an open release incident (No. 23062) that was reported on March 21, 2001. Mr. Brown stated that the Project is undergoing Free Product Assessment activities and the most recent monitoring report was dated January 17, 2012. No reports or additional information was made available to EA.

Based on the conclusions of the Phase II ESA, **EA recommends the following:**

- EA recommends reporting the findings of this investigation to the North Carolina Department of Environment and Natural Resources (NCDENR), Fayetteville Regional Office, Division of Waste Management, Underground Storage Tank (UST) Program. The NCDENR will determine if the identified soil and groundwater contamination correlates with the data on file for the open release incident (Incident # 23062) and if additional soil and/or groundwater assessment will be required based on the findings. The NCDENR will provide a determination as to whether any additional assessment or remediation work, if required, will remain the responsibility of The Pantry or whether the data points to a new contaminant source and warrants additional investigation by a prospective buyer of the property.

5.0 CLOSURE

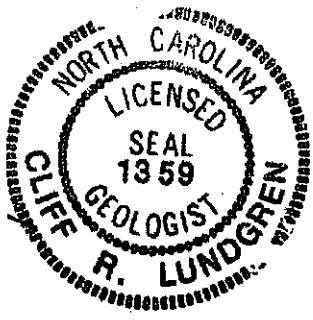
EA appreciates the opportunity to be of service to you on this project. Please call the undersigned at (704) 846-8853 if you desire additional information.

Sincerely,

EnviroAssessments, PLLC

Amanda L. Petoskey
Environmental Scientist

Attachments



Cliff R. Lundgren, P.G.
Project Manager

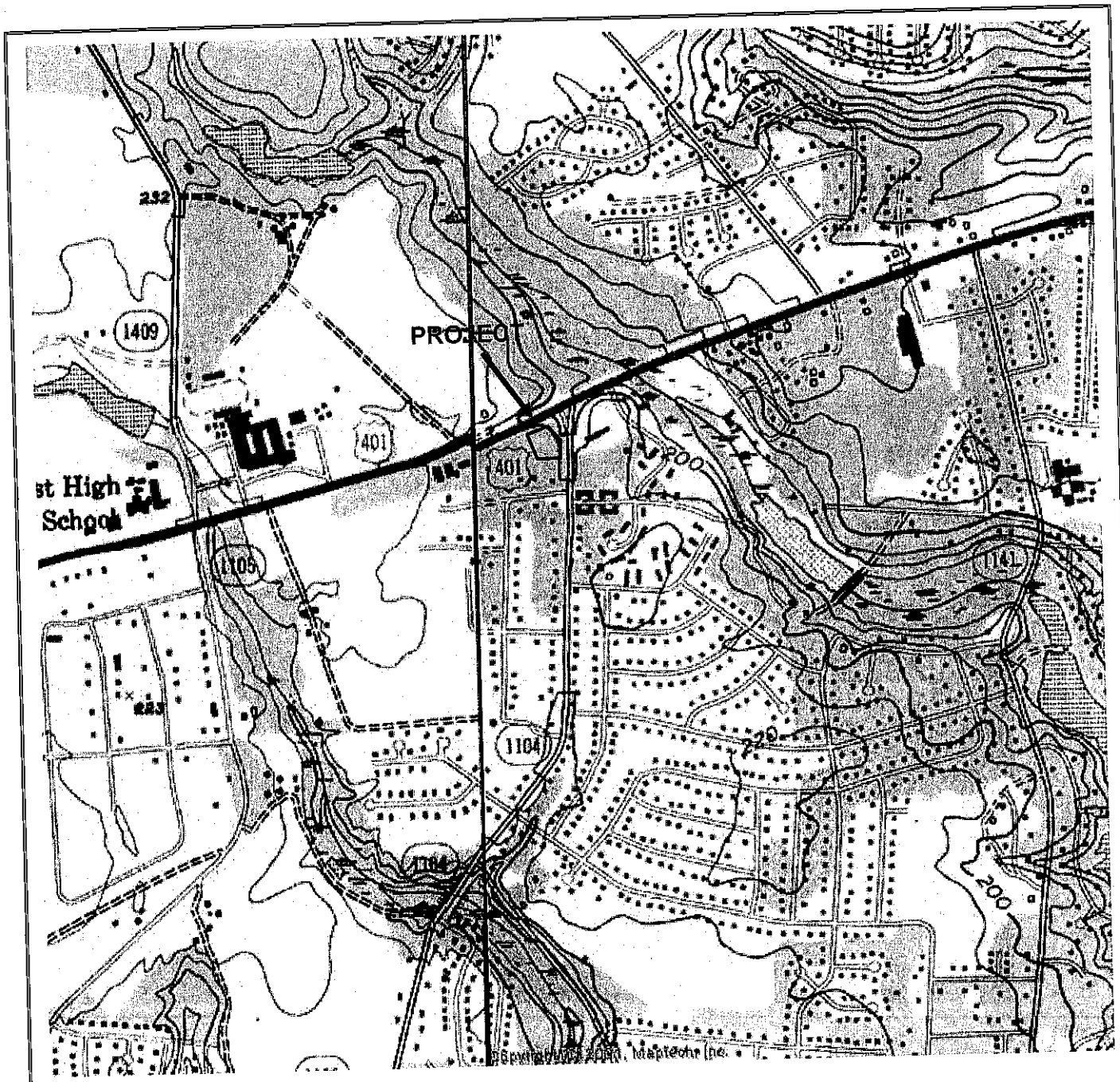


Figure 1 - Site Location Map

Source: USGS 7.5 Minute Topographic Map
Fayetteville, NC Quadrangle 1957, Revised 1987

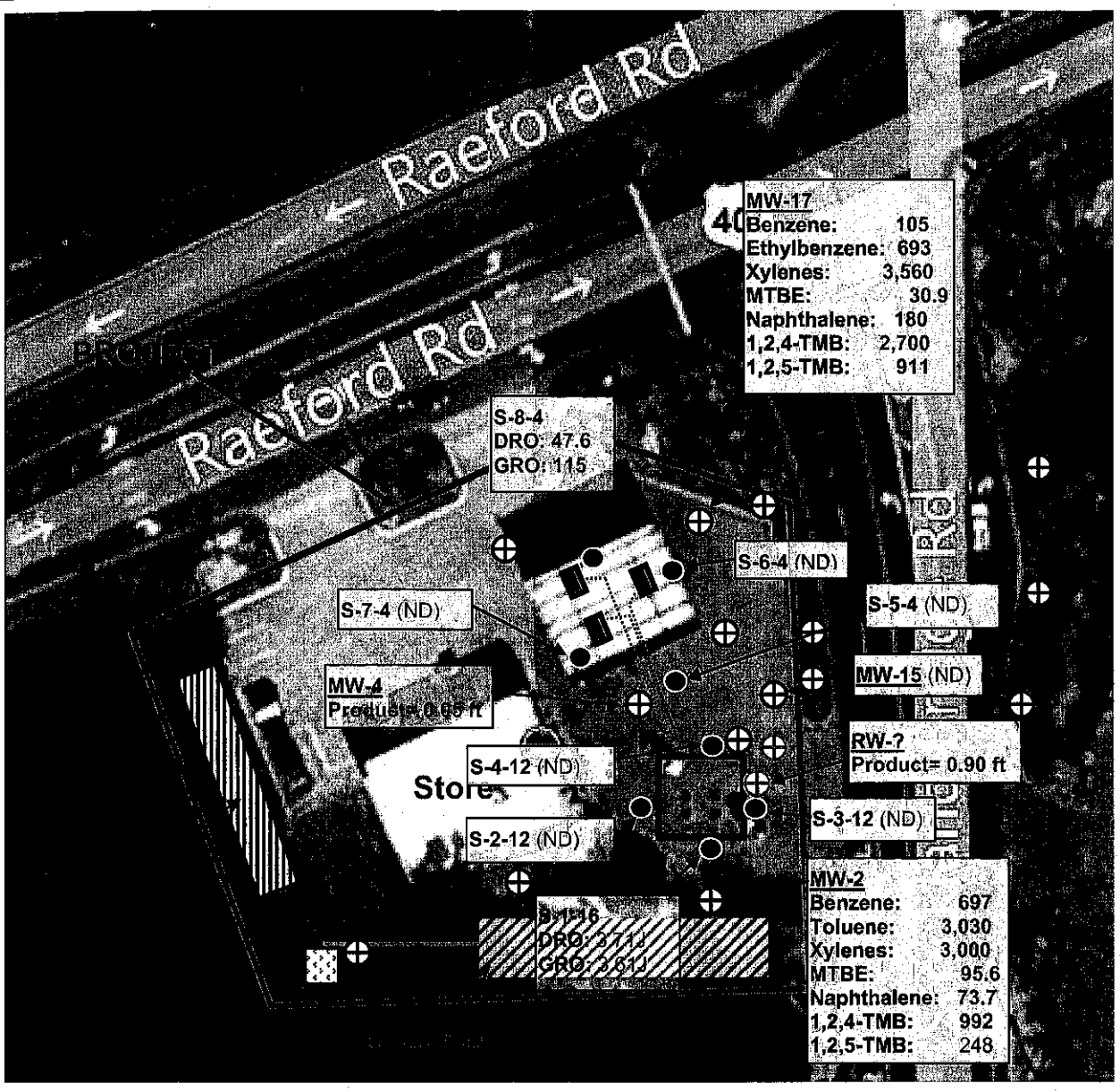
Scale: 1 : 24,000 N↑

9307 Monroe Road, Suite K
Charlotte, North Carolina 28270
T 704.846.8859 F 704.846.3271
enviroassessments.com

enviroassessments

Site Name: Kangaroo Station
6605 Raeford Road (Hwy 401)
Fayetteville, Cumberland Co,
North Carolina

EA Project Number: 12-9183.1



KEY

- Soil Sample Location
- Approximate Existing Monitoring Well Location
- Approximate Existing Recovery Well Location
- Current Gasoline UST Basin
- ..... Fuel Product Lines
- Gasoline Dispenser

*Refer to Table 4 for all other detected target analytes in groundwater

* Soil concentrations are reported in milligrams per kilograms (mg/kg).

* Groundwater concentrations are reported in micrograms per liter (ug/L).

***BOLD** depicts target analytes which exceed state standards

Figure 2: Site Plan

Source: Bing Maps

Scale: NTS

9307 Monroe Road, Suite K
Charlotte, North Carolina 28270
T 704.846.6853 F 704.846.3271
enviroassessments.com

enviroassessments

Site Name: Kangaroo Station
6605 Raeford Road (Hwy 401)
Fayetteville, Cumberland Co,
North Carolina

EA Project # 12-9183.1

TABLE 2

SOIL ANALYTICAL RESULTS
KANGAROO STATION
6605 RAEFORD ROAD (HIGHWAY 401)
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA
ENVIROASSESSMENTS PROJECT NO. 12-9183.1

Sample ID	Analytical Method	S-1-16	S-2-12	S-3-12	S-4-12	S-5-4	S-6-4	S-7-4	S-8-4	NC Action Level
Sample Depth (ft, bgs)		16	12	12	12	4	4	4	4	
Collection Date		3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	3/1/2012	
Total Petroleum Hydrocarbons(TPH) - Gasoline Range Organics (GRO)										
TPH	GRO	3.61 J	ND	ND	ND	ND	ND	ND	**115**	10
Total Petroleum Hydrocarbons (TPH) - Diesel Range Organics (DRO)										
TPH	DRO	3.71 J	ND	ND	ND	ND	ND	ND	**47.6**	10

Notes:
All concentrations are reported in milligrams per kilogram (mg/kg).
BOLD results exceed the NC Action Level of 10 mg/kg for TPH
ft, bgs - feet below ground surface
ND - Not Detected
J - Estimated value above laboratory method detection limits and below laboratory reporting limits.

TABLE 3

MONITORING WELL CONSTRUCTION/WATER LEVEL INFORMATION
KANGAROO STATION
6605 RAEFORD ROAD (HIGHWAY 401)
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA
ENVIROASSESSMENTS, PLLC - PROJECT NO. 12-9183.1

Well I.D.	Installation Date	Well Inner Diameter (in.)	Total Well Depth (ft.,bgs)	Screened Interval (ft., bgs)	DTP 3/1/2012 (ft. TOC)	DTW 3/1/2012 (ft., TOC)
Recovery Well*	Unknown	4	Unknown	Unknown	18.30	19.20
MW-2*	Unknown	2	Unknown	Unknown	NA	19.35
MW-4	4/26/2001	2	30	10-30	19.94	19.99
MW-15	11/7/2003	2	66	61-66	NA	19.50
MW-17	10/1/2011	2	30	10-30	NA	18.70

bgs = below ground surface
TOC = top of casing.
DTW = depth to water.
DTP = depth to product.
NA = Not Applicable
* No well tag was noted in the recovery well.
*MW-2 well tag was grouted inside well and was not legible.

TABLE 4

GROUNDWATER SAMPLING ANALYTICAL RESULTS
KANGAROO STATION
6605 RAEFORD ROAD (HIGHWAY 401)
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA
ENVIROASSESSMENTS, PLLC PROJECT NO. 12-9183.1

Sample ID / Collection Date	Analytical Method	MW-2 3/1/2012	MW-15 3/1/2012	MW-17 3/1/2012	NCAC 2L Groundwater Standard	Gross Contamiantion Level (GCL)
Volatile Organic Compounds by EPA Method 8260B						
Acetone	8260B	613 J	ND	ND	6000	6000000
Benzene	8260B	**697**	ND	**105**	1	5000
Toluene	8260B	**3030**	ND	575	600	260000
Ethylbenzene	8260B	491	ND	**693**	600	84500
Isopropylbenzene	8260B	36.9 J	ND	ND	70	25000
Xylenes, total	8260B	**3000**	ND	**3560[a]**	500	85500
n-Butylbenzene	8260B	ND	ND	**82.6**	70	6900
sec-Butylbenzene	8260B	ND	ND	53.2	70	8500
p-Isopropyltoluene	8260B	ND	ND	26.1	NE	NE
Naphthalene	8260B	**73.7 J**	ND	**180**	6	6000
n-Propylbenzene	8260B	**115**	ND	**525**	70	3000
1,2,4-Trimethylbenzene	8260B	**992**	ND	**2700[a]**	400	28500
1,2,5-Trimethylbenzene	8260B	248	ND	**911**	400	25000
Methyl Tert-Butyl Ether (MTBE)	8260B	**95.6**	ND	**30.9**	20	20000
Polycyclic Aromatic Hydrocarbons (PAH) by EPA Method 8270C						
Fluorene	8270C	ND	ND	0.52 J	300	990
1-Methylnaphthalene	8270C	19.4	ND	35.9	NE	NE
2-Methylnaphthalene	8270C	**37.6**	ND	**79.8[a]**	30	12500
Naphthalene	8270C	**68.5[a]**	ND	**76.3[a]**	6	6000
Phenanthrene	8270C	0.30 J	ND	0.43 J	200	410

Notes:
All concentrations are reported in micrograms per liter(ug/L).
BOLD results exceed their respective NCAC 2L Groundwater Standard.
ND - Not Detected
NE - Not Established
J - Estimated value above laboratory detection limits and below laboratory reporting limits.
a - Result is from Run #2

September 4, 2015

Division of Waste Management
UST Section
Fayetteville Regional Office
Systel Building, Suite 714
225 Green Street
Fayetteville, North Carolina 28301

Attn: Mr. James Brown

Re: **Active Remediation Monitoring Report**
Pantry #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina
Incident # 23062
W&R Project No. 02071121.0

Dear Mr. Brown:

Withers & Ravenel (W&R) has prepared this report summarizing results of groundwater monitoring completed at the above referenced site in May 2015. The following paragraphs provide background information and summarize the groundwater monitoring data collected from the site.

Sincerely,
WITHERS & RAVENEL, INC.

Matt James, P.G.
Project Manager

C. Chan Bryant, P.E.
Senior Engineer

Section A. Site Identification

1. Site Identification

Date of Report:	September 4, 2015		
Facility ID:	0-023655	UST Incident No: 23062	Site Risk/Ranking: I175D
Site Name:	Pantry #486		
Site Street Address:	6605 Raeford Road		
Site City/Town:	Fayetteville	Zip: 28304	County: Cumberland

Description of Geographical Data Point: Close to Source Area
Location Method (GPS, topo map, other): topo map
Latitude (decimal degrees): N 35° 02' 24" Longitude (decimal degrees): W 78° 59' 50"

2. Contact Information

UST Owner: The Pantry, Inc.
Address: 305 Gregson Drive, Cary, North Carolina 27511 Tel: 919.774.6700

UST Operator: The Pantry, Inc.
Address: 305 Gregson Drive, Cary, North Carolina 27511 Tel: 919.774.6700

Property Owner: 6157 Crystal Drive LLC
Address: P. O. Box 926, Dunn, North Carolina 28335 Tel: Unknown

Property Occupant: The Pantry, Inc.
Address: 305 Gregson Drive, Cary, North Carolina 27511 Tel: 919.774.6700

Consultant/Contractor: Withers & Ravenel, Inc.
Address: 111 MacKenan Drive, Cary, NC 27511 Tel: 919.469.3340

Analytical Laboratory: Environmental Science Corporation (ESC) State Certification #:ENV375
Address: 12065 Lebanon Road, Mount Juliet, TN 37122 Tel: 615.758.5859

3. Release Information:

Date Discovered: March 21, 2001
Estimated Quantity of Release: Unknown
Cause of Release: UST system
Source of Release: UST /Piping
Type of material release occurred: Gasoline fuel
Sizes & Contents of UST system(s) from which release occurred: 3 ~10,000-Gallon Gasoline USTs

4. Information about the Monitoring Report

Dates of Groundwater Monitoring:	May 19 & 20, 2015
Period of Time Reported:	1st Semester 2015
Type of Monitoring Report:	Active Remediation Monitoring

NORTH CAROLINA PROFESSIONAL SEAL 021643 ENGINEER C. CHAN BRYANT 9/4/15

5. Certification

I, _____, a Professional Engineer/Licensed Geologist for Withers & Ravenel, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

(Please Affix Seal and Signature)

Withers & Ravenel, Inc. is licensed to practice geology/engineering in North Carolina. The certification numbers are C-293 (Geology) and C-0451 (Engineering).

WITHERS & RAVENEL

ENGINEERS | PLANNERS | SURVEYORS

ACTIVE REMEDIATION MONITORING REPORT

PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina
Incident # 23062
Facility I.D. Number: 0-023655

Risk Classification: Intermediate
Ranking: I175D
Land Use Category: Residential

Responsible Party:
The Pantry, Inc.
305 Gregson Drive
Cary, North Carolina 27511
(919) 774-6700

Current Property Owner:
6157 Crystal Drive LLC
Post Office Box 926
Dunn, North Carolina 28335

Report Prepared By:
Withers & Ravenel, Inc.
115 MacKenan Drive
Cary, North Carolina 27511
(919) 469-3340
W&R Project #02071121.0

Release Discovered:	March 21, 2001
Release Quantity:	Unknown
Cause/Source of Release:	Apparent UST System

UST System:	3 - 10,000 Gallon Gasoline USTs
Latitude:	N 35° 02' 24"
Longitude:	W 78° 59' 50"

C. Chan Bryant, P.E.

September 4, 2015

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FIGURES

TABLES

APPENDICES

1 BACKGROUND

The Pantry #486 property is currently occupied by a retail gasoline and convenience store located at 6605 Raeford Road in Fayetteville, NC. The onsite facility is currently active and contains three 10,000-gallon gasoline underground storage tanks (USTs).

In January 2001 the statistical inventory reconciliation (SIR) data for the site indicated a "fail" for the 10,000-gallon premium gasoline UST. As a result, the Pantry, Inc. (Pantry) ordered a tank tightness test. The test was conducted in February 2001 and indicated a "pass". The Pantry pumped out the contents of the tank and inspected the interior where a hole was discovered in the bottom of the UST near the fill port end.

In March 2001, the Pantry contracted SEI Environmental, Inc. (SEI) to investigate the release. Recovery wells were installed and four AFVR events were conducted. A 20-Day Report and AFVR Reports were submitted to the NCDENR Division of Waste Management, UST Section in May 2001.

SEI conducted Phase I and II LSA activities and submitted a report in July 2001. Free product was present in recovery wells and monitoring wells adjacent to the source area.

Contaminant levels in groundwater were determined to be above 15A NCAC 2L Standards and less than Gross Contaminant Levels (GCLs). A total of six AFVR events were conducted at the site from June 2001 to February 2002. The report for the events was submitted by SEI in March 2002.

In July 2001, the NC Division of Waste Management, UST Section (NCDWM-UST) issued a Notice of Regulatory Requirements requiring the completion of a Comprehensive Site Assessment (CSA) for the subject site. SEI conducted CSA activities between October 2001 and February 2003. The CSA report was submitted to the NCDWM-UST Section in April 2003. Following the completion of the CSA, SEI recommended the development of a Corrective Action Plan (CAP) for the site, including a soil investigation to determine the extent of free product in soil surrounding the UST basin. Copies of the historical groundwater monitoring data tables from the previous sampling conducted by SEI are attached in **Appendix A.**

In January/February 2008, October 2009, May 2010, June 2010, and December 2010, W&R completed additional rounds of groundwater monitoring activities and updated the receptor survey for the site. Groundwater monitoring data collected over these events has illustrated that groundwater results have fluctuated over time in MW-5 through MW-8, MW-14, and MW-15. Whereas wells MW-1 through MW-4 and MW-9 have contained NCAC 2L groundwater violations throughout the monitoring events. Based on the results of a May 2010 updated receptor survey, no active water supply wells are located within 1,000 feet of the site. However, one inactive water supply well is situated approximately 445 feet south of the site (see **Figure 2**). Groundwater flow on the site has been shown to be towards the northeast and away from this well.

A NORR was issued on January 28, 2011 reducing the risk of the site from High to Intermediate based on the results of previous monitoring events and receptor survey update.

In March and October 2011, W&R mobilized to the site to complete free product recovery activities, which consisted of free product gauging as well as bailing of free product. Historically, free product has been observed in wells MW-1 through MW-4, MW-16 through MW-21, and RW-1 through RW-3. Since the completion of several aggressive fluid vapor recovery (AFVR) events at the site between June 2001 and February 7, 2002 under the supervision of SEI, free product thicknesses have ranged from 0.01 feet to 1.01 feet, which was a reduction of approximately 50% from the pre-AFVR range.

W&R completed a groundwater monitoring event at the site in June/July 2012 that included free product monitoring and recovery activities. Mobile multi-phase extraction (MMPE) events have been completed at the site under W&R's supervision in June 2010, November-December 2010, and July 2012. A total of 32,866 gallons of water, 144 gallons of free phase product and 650.77 gallons of vaporized product were removed during the combined MMPE events. Free product thicknesses have ranged from 0.01 feet to 0.52 feet, which was a reduction of approximately 50% from the SEI-AFVR range.

W&R completed a groundwater monitoring event at the site in April/May 2013 that included free product monitoring and recovery activities. An MMPE event was completed at the site in April 2013. During the event approximately 10,806 gallons of VOC impacted water were recovered. An estimated 20 gallons of free product was removed as liquid. Based on mass removal calculations, 2,358.11 pounds or 383.31 gallons of VOCs as gasoline was removed as vapor. Free product thicknesses have ranged from 0.01 feet to 0.16 feet prior to the event. Immediately following the event, free product was only identified in monitoring well MW-19 at a thickness of 0.15 feet.

W&R completed free product monitoring and recovery events on October 31, November 18, and December 16, 2013. Free product was detected in wells RW-1, RW-3, MW-19, and MW-20 with product thicknesses ranging from 0.01 to 0.87 feet in the October event. During the November event, free product was detected in wells RW-3, MW-19, and MW-20 with product thicknesses ranging from 0.03 to 0.90 feet. Finally, free product was only detected in wells MW-19 and MW-20 with product thicknesses of 0.09 and 0.39 feet in December 2013. W&R personnel removed free product using a peristaltic pump during each event. A total of 31 gallons of liquid was removed from wells with detected levels of free product with an estimated 10 gallons of free product or non-aqueous phase liquid (NAPL) removed. Following the free product monitoring and recovery events, W&R completed a groundwater monitoring event on December 27, 2013. Groundwater samples were collected from wells MW-5, MW-6, MW-7, MW-9, MW-10, MW-13, MW-14, MW-15, MW-17, MW-18, MW-21, and MW-22. Monitoring wells MW-1 through MW-4, MW-19, and MW-20 were not sampled due to the presence of free product. Analytical results indicated that petroleum related compounds were detected above their respective standards defined by NCAC Title 15A, Subchapter 2L, Section .0202 (2L Standards) in monitoring wells MW-9 and MW-21. No targeted compounds were detected above GCLs.

In January 2014, W&R completed a New Technology Cleanup Plan recommending to replace the proposed onsite dual-phase extraction with air sparging remediation strategy

set forth in the March 2004 Corrective Action Plan (CAP) with an onsite Air Sparge and Soil Vapor Extraction (SVE) system along with monthly offsite free phase product recovery events via peristaltic pumps and/or bailing.

A groundwater sampling event completed in September 2014 revealed a GCL violation for benzene in MW-4 and 2L violations in monitoring wells MW-1, MW-2, MW-3, MW-4, MW-9, MW-16, MW-17, MW-21, and MW-22. Free phase product detected in MW-19 and MW-20 during the groundwater sampling event.

2 FREE PRODUCT MONITORING AND RECOVERY

W&R completed free product monitoring and recovery activities at the site on a monthly basis from January through September 2014. During these events, monitoring wells MW-1 through MW-4 and MW-16 through MW-22 as well as remediation wells RW-1 through RW-3 were monitored for the presence of free phase product. Wells in which the free product was identified were pumped or bailed until free phase product was no longer visible in the recovered groundwater. These activities are described in the following sections.

On January 22, 2014, free product was detected in wells MW-2, MW-19, and RW-3 with free product thicknesses ranging from 0.01 feet (RW-3) to 0.67 feet (MW-19). W&R personnel pumped approximately 10.5 gallons of groundwater/petroleum mixture consisting of approximately 0.75 gallons of NAPL from the three wells.

On February 17, 2014, free product was detected in wells MW-2 and MW-19 with free product thicknesses ranging from 0.04 feet (MW-2) to 0.64 feet (MW-19). W&R personnel pumped approximately 9 gallons of groundwater/petroleum mixture consisting of approximately 0.9 gallons of NAPL from the two wells.

On March 20, 2014, free product was detected in wells MW-2 and MW-19 with free product thicknesses ranging from 0.08 feet (MW-2) to 0.91 feet (MW-19). W&R personnel pumped approximately 6 gallons of groundwater/petroleum mixture consisting of approximately 1 gallon of NAPL from the two wells.

On April 22, 2014, free product was detected in well MW-19 with a free product thickness reading of 1.17 feet. W&R personnel pumped approximately 2.5 gallons of groundwater/petroleum mixture consisting of approximately 1.5 gallons of NAPL from the well.

On May 22, 2014, free product was detected in well MW-19 with a free product thickness reading of 0.67 feet. W&R personnel pumped approximately 2 gallons of groundwater/petroleum mixture consisting of approximately 0.5 gallons of NAPL from the well.

On June 19, 2014, free product was detected in wells MW-2 and MW-19 with free product thicknesses ranging from 0.02 feet (MW-2) to 0.11 feet (MW-19). W&R personnel pumped approximately 4 gallons of groundwater/petroleum mixture from the two wells.

On July 24, 2014, free product was detected in wells MW-2, MW-19, MW-20 and RW-3 with free product thicknesses ranging from 0.08 feet (MW-20) to 0.55 feet (MW-19). W&R personnel pumped approximately 3.5 gallons of groundwater/petroleum mixture consisting of approximately 0.6 gallons of NAPL from the wells.

On August 22, 2014, free product was detected in wells MW-2, MW-19, MW-20, and RW-3 with free product thicknesses ranging from 0.01 feet (MW-2) to 0.67 feet (MW-20). W&R personnel pumped approximately 7.0 gallons of groundwater/petroleum mixture from the four wells.

On September 11, 2014, free product was detected in wells MW-19 and MW-20 with free product thicknesses ranging from 0.11 feet (MW-20) to 0.29 feet (MW-19). W&R personnel pumped approximately 5.5 gallons of groundwater/petroleum mixture from the two wells.

During the May 2015 groundwater sampling event, FFP was measured in MW-19, MW-20, and RW-3 at thicknesses of 0.68 ft., 0.11 ft., and 0.08 ft., respectively.

Table 7 summarizes the current and historical free product and recovery events. **Table 8** summarizes the historical free phase product recovery volumes. To date, approximately 63,966 gallons of groundwater/petroleum mixture consisting of approximately 2,071 gallons of NAPL has been recovered from the site via AFVR, MMPE, and pumping methods.

3 GROUNDWATER MONITORING PROGRAM

Groundwater monitoring activities were completed at the site on May 19 and 20, 2015. Groundwater monitoring activities and results are described below.

3.1 Groundwater Elevations

On May 19 & 20, 2015, monitoring wells MW-1 through MW-22 as well as RW-1 through RW-3 were gauged for depths to groundwater and free product prior to groundwater sampling activities. Depth to water and depth to product measurements were collected from the wells using a decontaminated Solinst® interface meter and checked with a disposable bailer and string. Measurable free phase product (FPP) was observed and confirmed in monitoring wells MW-19, MW-20, and RW-3. Product thickness were measured to be 0.68 ft. in MW-19, 0.11 ft. I MW-20, and 0.08 ft. in RW-3. Free product thicknesses from this event are displayed on **Table 7**. The distribution of free product during this gauging event is shown on the attached **Figure 10**. Free product is shown to extend offsite to the east with the eastern edge of the product plume not yet delineated.

Groundwater depths were subtracted from top of casing elevations to obtain groundwater elevations. Using the groundwater elevations calculated from data collected during the May 2015 event, a groundwater potentiometric surface map has been completed and provided in **Figure 4** that depicts groundwater flow to be generally toward the east/northeast. Historical groundwater elevation data is presented in **Table 5**. The groundwater flow generally appears to be consistent, based on historical maps, with the direction of historical groundwater flow toward the north, east, or northeast.

3.2 Groundwater Quality

Groundwater samples were collected from twenty (18) of the monitoring wells at the site (that included MW-1 through MW-7, MW-9, MW-10, MW-12 through MW-18, MW-21, and MW-22) and two (2) recovery wells (RW-1 and RW-2). Collected samples were decanted into laboratory provided bottleware, placed into a clean cooler containing ice, and transported under chain-of-custody to ESC Lab Sciences in Mt. Juliet, Tennessee for analysis of volatile organic compounds (VOCs) by EPA Method 6200B.

Monitoring wells MW-19, MW-20, RW-3 were identified as having free product were not sampled during this monitoring event.

Laboratory of the collected groundwater samples revealed the following exceedances to GCL Standard:

MW-1: Benzene; and
RW-2: Benzene.

Laboratory of the collected groundwater samples revealed the following monitoring / recovery wells with 2L Standard exceedances:

- MW-1, MW-2, MW-3, MW-4, MW-9, MW-16, MW-17, MW-21, MW-22, RW-1, and RW-2

A summary of the May 2015 analytical results is presented in **Table 4.** A summary of the historical water quality data is included in **Table 6.** The laboratory analytical report and chain-of-custody is included in **Appendix A.**

Groundwater isocontour mapping was completed for benzene and free phase product. These maps are presented as **Figures 6** and **7,** respectively. Groundwater plumes associated with each of these constituents extend offsite to the east and northeast, and are not delineated in those directions.

3.3 Groundwater Receptors

Previous receptor surveys have identified no active water supply wells within 1,000 feet of the subject site. However, one inactive water supply well is situated approximately 445 feet south of the site (see **Figure 2**) that was identified during the last receptor survey conducted for the site on May 29, 2010. Historical groundwater flow on the site has been shown to be towards the east-northeast, as was the case during the May 2015 monitoring event, and away from this inactive water supply well. Water supply well information is presented in **Table 2,** while contiguous property information is present in **Table 1.**

4 CONCLUSIONS

W&R has developed the following conclusions based on the results of the September 2014 groundwater assessment and delineation at the site.

- Benzene was detected in monitoring well MW-1 and recovery well RW-2 at a concentration above GCLs.
- Targeted compounds were detected above 2L standards in monitoring wells MW-1, MW-2, MW-3, MW-4, MW-9, MW-16, MW-17, MW-21, MW-22, RW-1, and RW-2
- Measurable free phase product was detected in MW-19, MW-20, and RW-2.
- W&R is in the process of implementing the approved New Technology Cleanup Plan to actively remediate the site.

Please contact us if you have any questions or comments regarding this report.

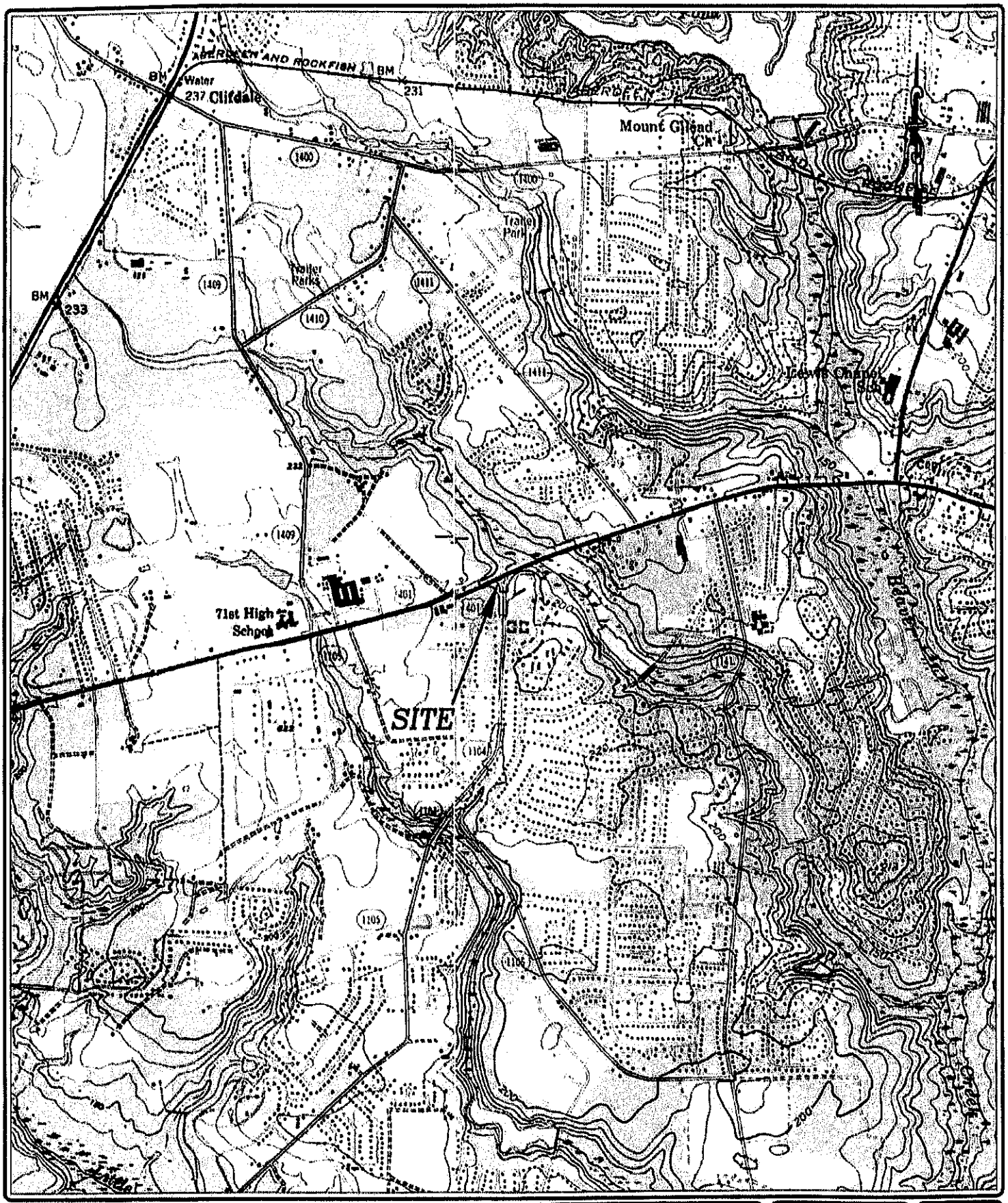
Sincerely,

WITHERS & RAVENEL, INC.

Matt James, P.G.
Project Manager

C. Chan Bryant

Chan Bryant, P.E.
Vice President – Environmental Services



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GENERAL LOCATION MAP
PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, NORTH CAROLINA
USGS CLIFFDALE & FAYETTEVILLE, NC
7.5 min. Quadrangle

DRAWN BY:	SCALE:	FIGURE NO.
PCF	1"=2000	1
APPROVED BY:	DATE:	JOB NO:
CB	01/23/08	02071121

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LEGEND

WATER SUPPLY WELL

STREAM

NOTE:

1) 2013 AERIAL PHOTOGRAPH OBTAINED FROM CUMBERLAND COUNTY GIS.

2) PARCEL AND STREAM DATA OBTAINED FROM CUMBERLAND COUNTY GIS.

GRAPHIC SCALE

300 0 150 300 600

(IN FEET)

1 inch = 300 ft.

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Revisions			
No.	Description	Date	By

PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA

RECEPTOR MAP

Drawn By	Scale
MJ	1" = 300'
Checked By	Date
CB	06/12/15

Job No. 02071121.00
Sheet No. 2

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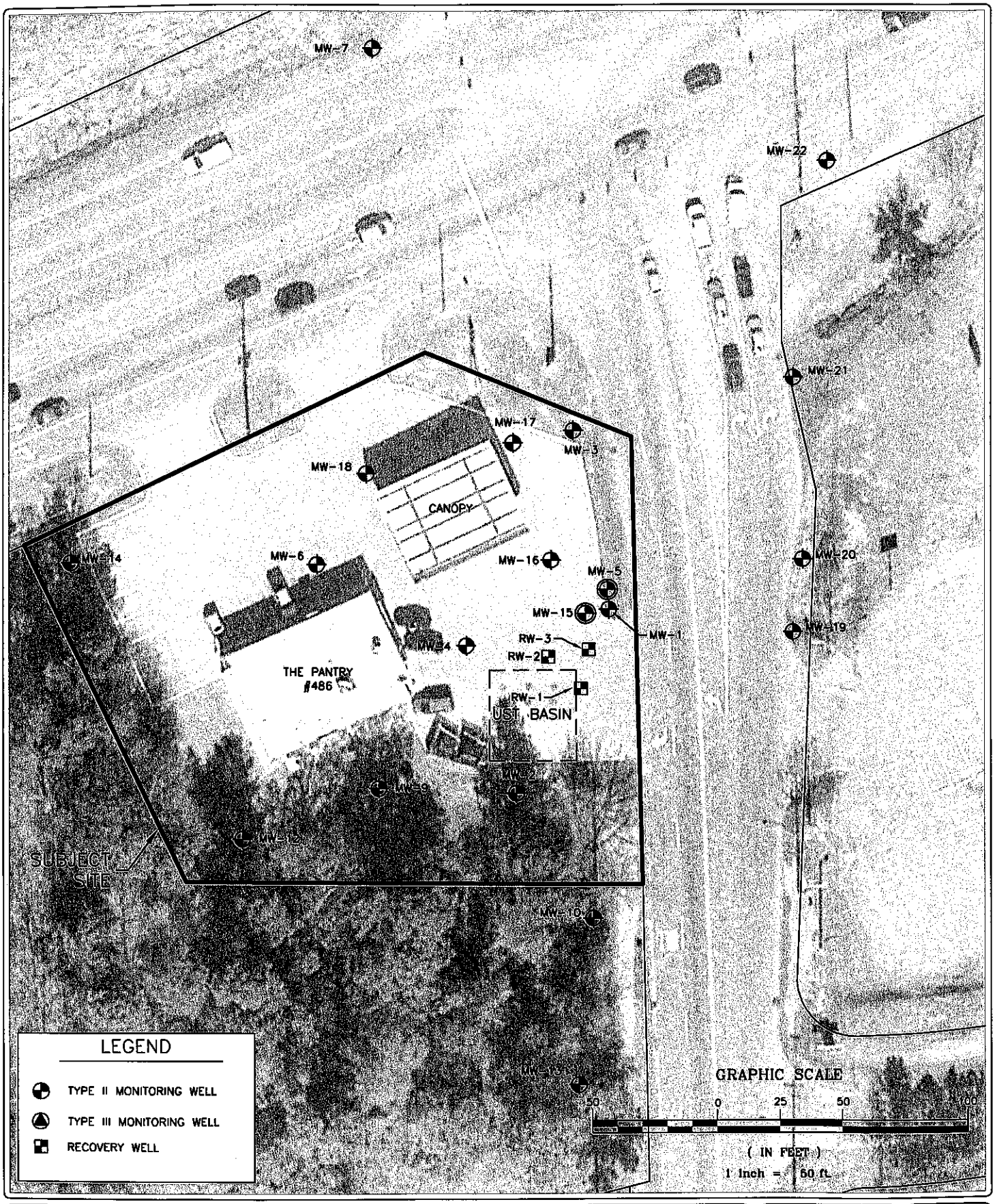

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PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

SITE MAP

DRAWN BY:	SCALE:	FIGURE NO.
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APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

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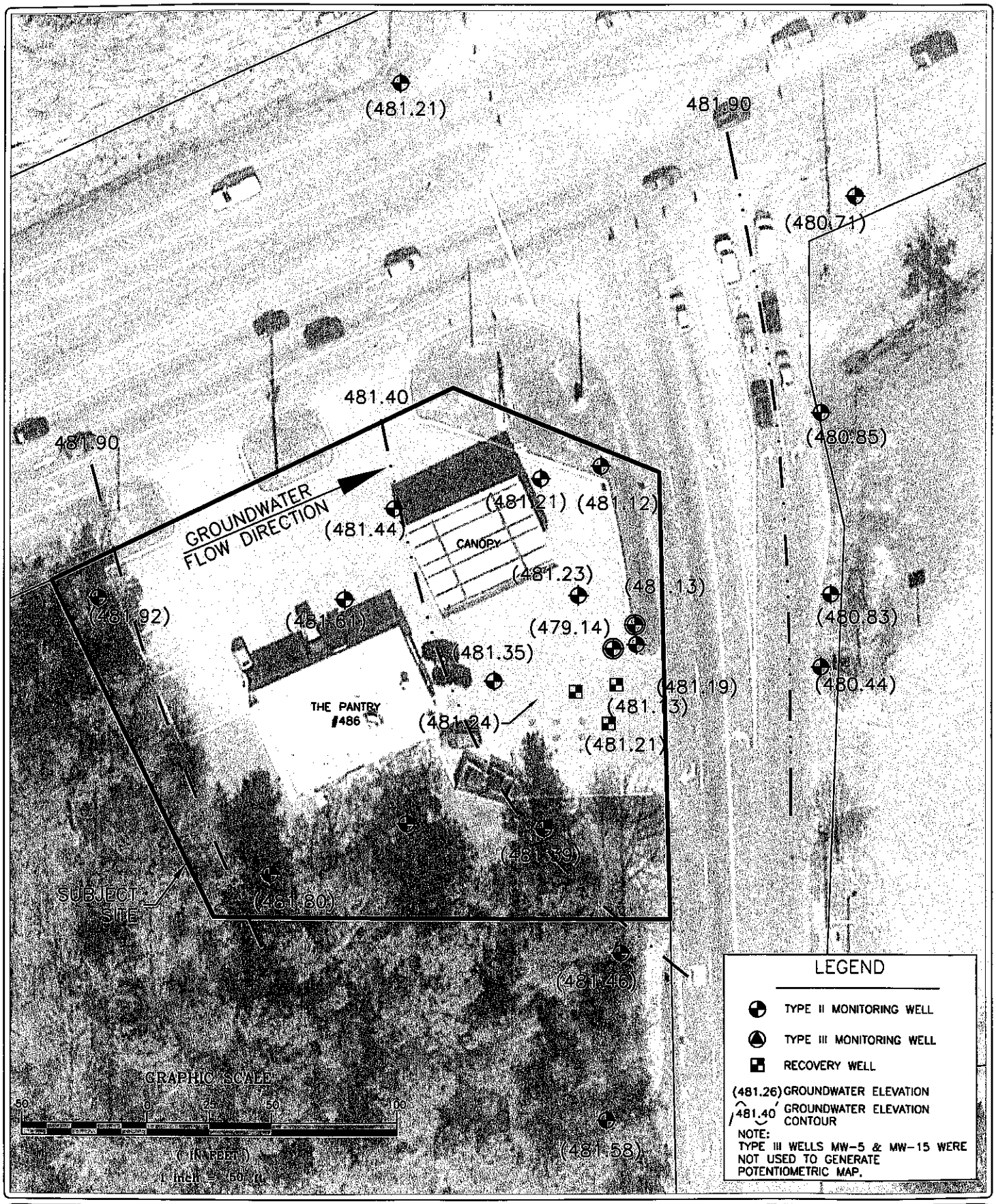

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PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

POTENTIOMETRIC MAP - SEPTEMBER 2014

DRAWN BY:	SCALE:	FIGURE NO.
WRP	1"=50'	4
APPROVED BY:	DATE:	JOB NO:
KTC	10/30/14	02071121.0

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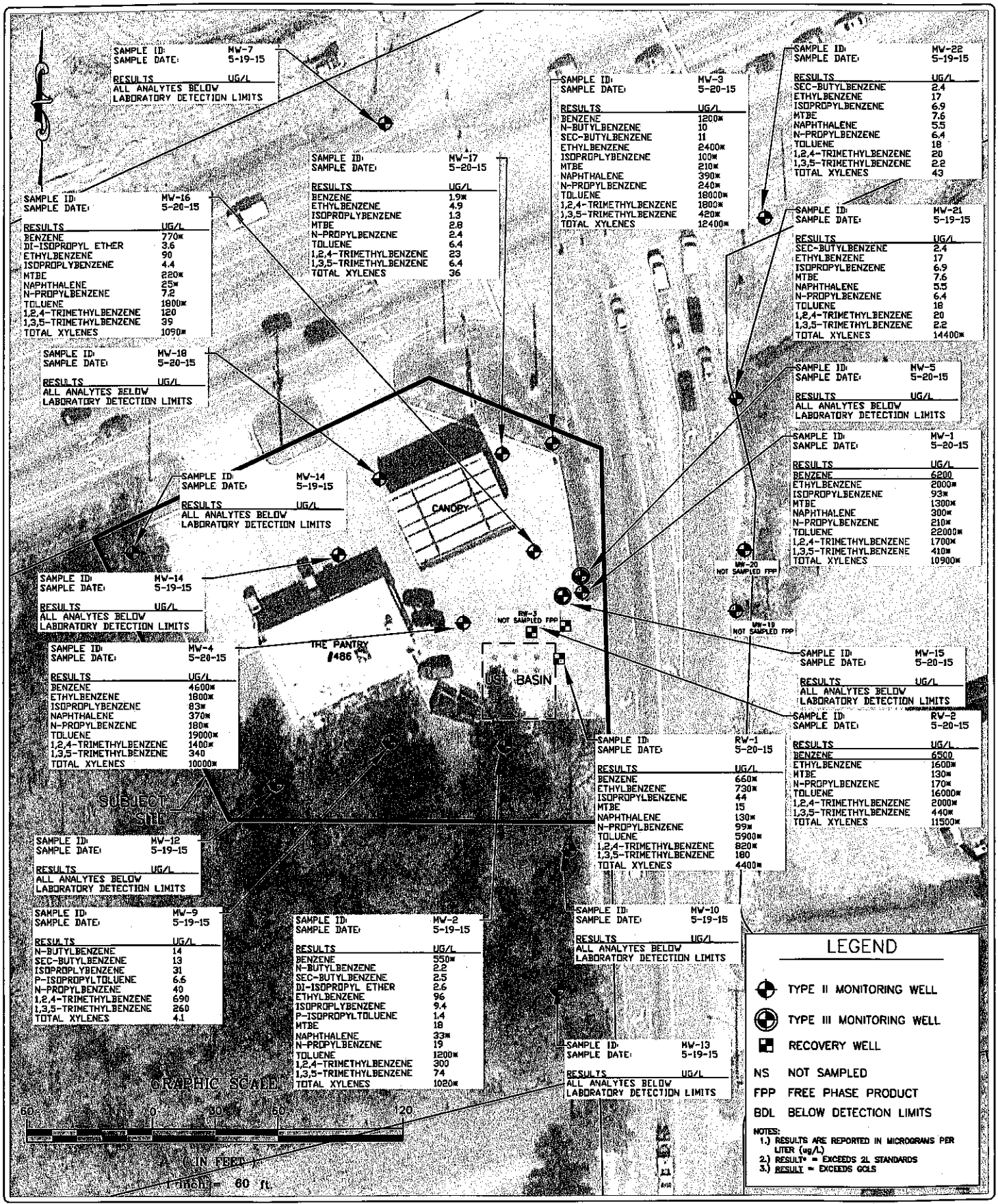

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PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

GROUNDWATER ANALYTICAL RESULTS

DRAWN BY:	SCALE:	FIGURE NO.
MJ	1"=60'	5
APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

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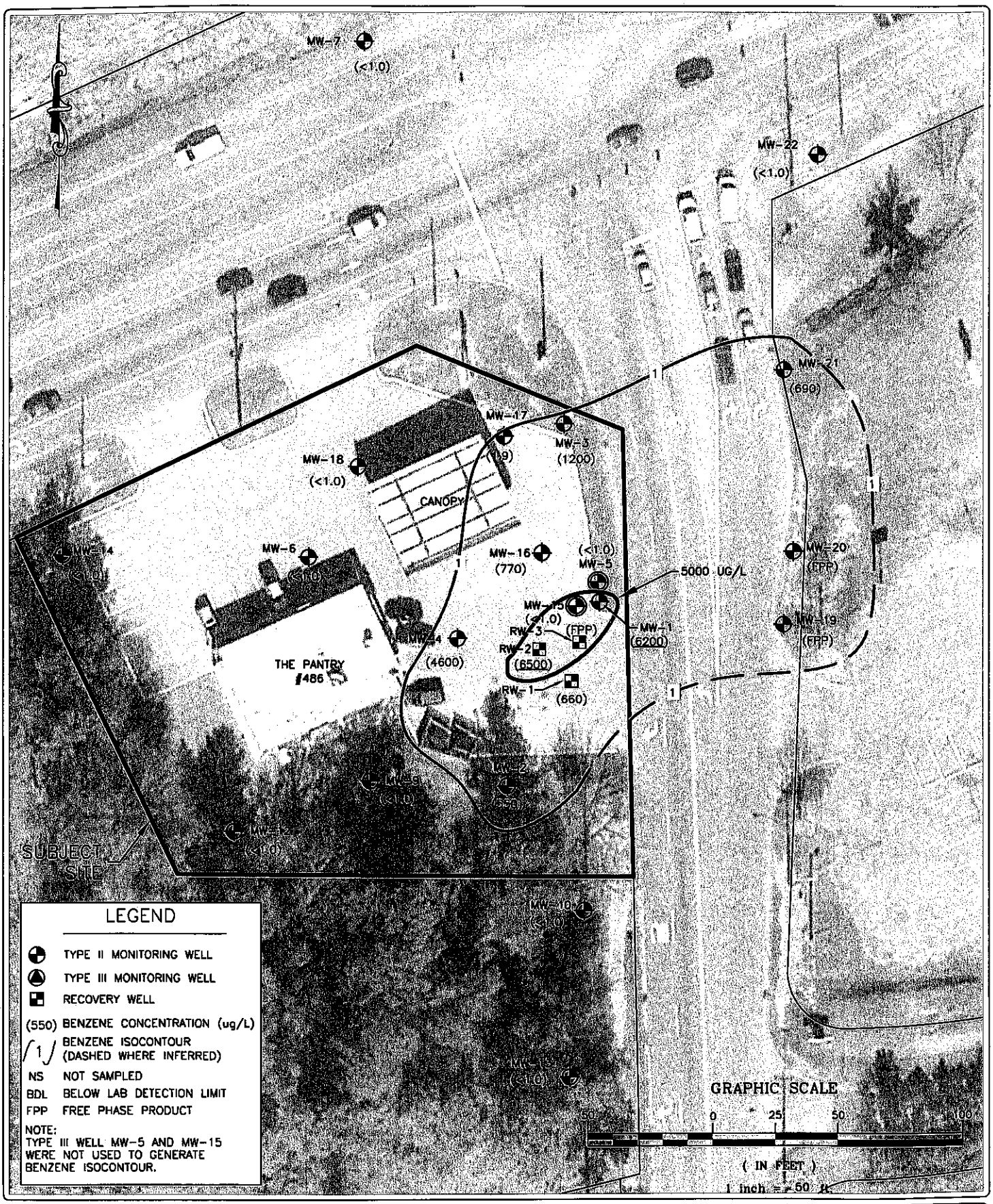

LEGEND

- TYPE II MONITORING WELL
- TYPE III MONITORING WELL
- RECOVERY WELL
- (550) BENZENE CONCENTRATION (ug/L)
- 1 BENZENE ISOCONTOUR (DASHED WHERE INFERRED)
- NS NOT SAMPLED
- BDL BELOW LAB DETECTION LIMIT
- FPP FREE PHASE PRODUCT

NOTE:
TYPE III WELL MW-5 AND MW-15 WERE NOT USED TO GENERATE BENZENE ISOCONTOUR.

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PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

BENZENE ISOCONCENTRATION MAP

DRAWN BY:	SCALE:	FIGURE NO.
MJ	1"=50'	6
APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

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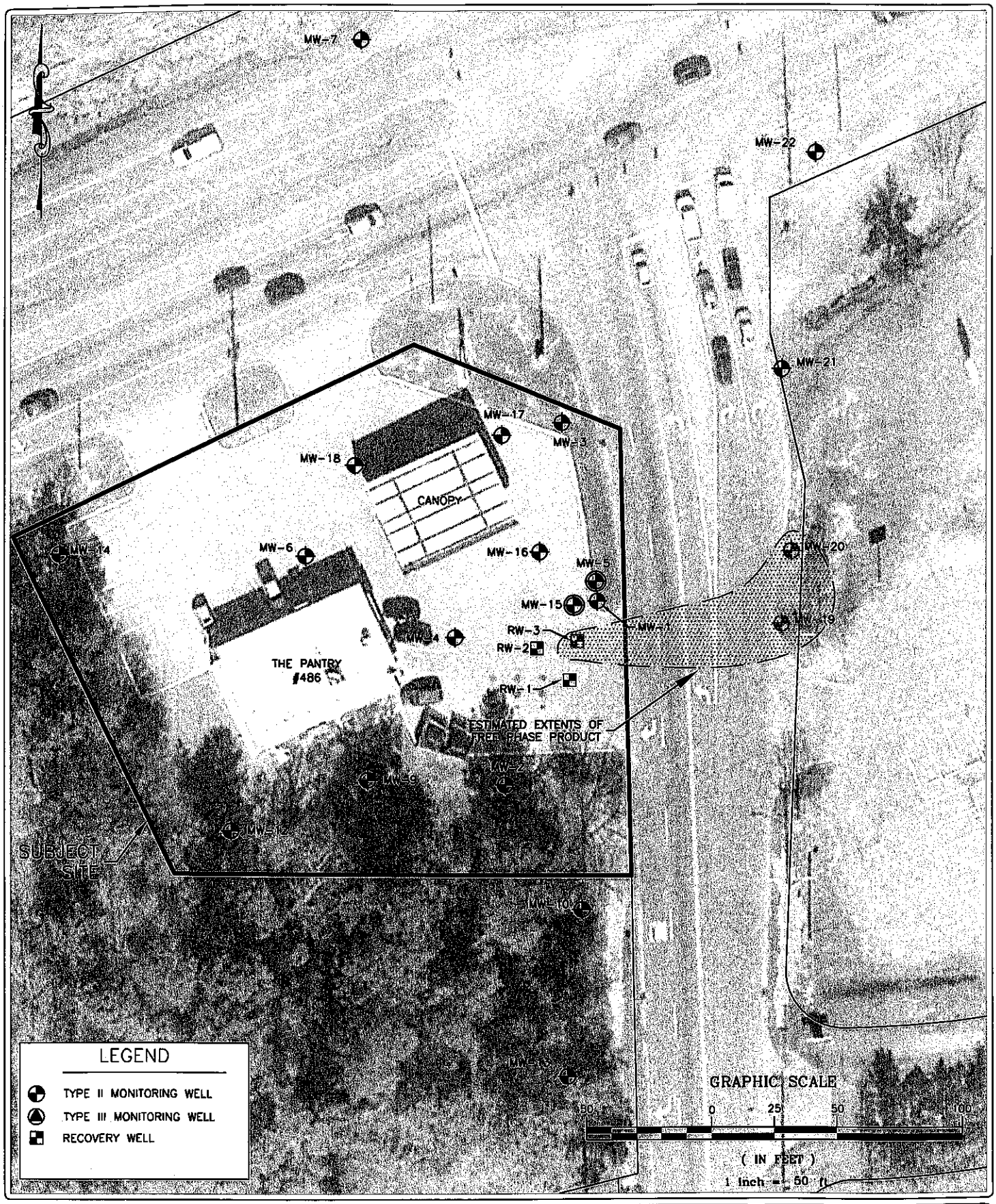

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PANTRY #486
6605 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NC

FREE PRODUCT MAP-MAY 2015

DRAWN BY:	SCALE:	FIGURE NO.
MJ	1"=50'	7
APPROVED BY:	DATE:	JOB NO:
CB	06/12/15	02071121.0

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TABLE 1

PROPERTIES CONTIGUOUS TO THE SITE

Pantry #486

6605 Raeford Rd.

Fayetteville, Cumberland County, North Carolina

Parcel ID Number	Current Owner and Owner Address	Property Address	Location Relative to Source
SITE 0406-09-6372	Joseph H. Gillis P.O. Box 736 Fayetteville, NC 28302	6605 Raeford Road Fayetteville, NC	SITE
0406-09-5137	Joseph H. Gillis P.O. Box 736 Fayetteville, NC 28302	(undeveloped) Raeford Road Fayetteville, NC	Southwest
0406-09-0781	Sharlene R. Williams P.O. Box 53646 Fayetteville, NC 28305	(undeveloped) Raeford Road Fayetteville, NC	North
0406-19-0460	Frances H. Elliot Trustee 1470 Elliot Bridge Road Fayetteville, NC 28311	6545 / 6543 Strickland Bridge Road Fayetteville, NC	East
0406-09-9002	First Spanish Baptist Church P.O. Box 42534 Fayetteville, NC 28304	1041 Strickland Bridge Road Fayetteville, NC	Southeast

Notes: Parcel numbers are depicted on Figure 2.

TABLE 2
WATER SUPPLY WELL SURVEY
Pantry # 486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

WSW No. (See Fig. 3)	Approx. Distance Form Release Source (ft)	Current Owner and Owner Address	Property Address	Use Of Well	Municipal Water	Direction From Source
WSW-1	445'	Carolina Conference of Seventh Day 2701 East W.T. Harris Blvd. Charlotte, NC 28213	1044 Strickland Bridge Rd. Fayetteville, NC	Currently Inactive*	Yes	South

Notes: Information taken from returned WSW surveys and personal interviews

This list is not to be considered as a complete listing of all WSW's within a 1,500' radius of subject release area.

* Well may be reactivated once the church is occupied.

TABLE 3
WELL CONSTRUCTION INFORMATION AND CURRENT GROUNDWATER ELEVEATION DATA
Pantry #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Well ID	Date Installed	Total Depth	Screened Interval [2]	Top of Casing Elevation	Free Phase Product Thickness	Depth to Water [1] (ft bls) 5/19/15	Groundwater Elevation 5/19/15
Type II Monitoring Wells							
MW-1	3/22/2001	30	10 - 30	496.98	-	15.79	481.19
MW-2	3/23/2001	30	10 - 30	498.65	-	17.26	481.39
MW-3	3/23/2001	30	10 - 30	496.65	-	15.53	481.12
MW-4	4/26/2001	30	10 - 30	499.26	-	17.91	481.35
MW-6	10/15/2001	30	10 - 30	500.12	-	18.51	481.61
MW-7	10/15/2001	25	10 - 25	497.28	-	16.21	481.07
MW-9	10/15/01	30	10 - 30	499.74	-	18.14	481.60
MW-10	10/15/01	28	8 - 28	503.46	-	22.00	481.46
MW-12	03/01/02	30	10 -30	498.60	-	16.80	481.80
MW-13	02/26/02	30	10 - 30	506.49	-	24.91	481.58
MW-14	11/07/03	30	10 - 30	500.66	-	18.74	481.92
MW-16	10/18/11	30	10 - 30	497.88	-	16.65	481.23
MW-17	10/18/11	30	10 - 30	498.01	-	16.80	481.21
MW-18	10/18/11	30	10 - 30	499.28	-	17.84	481.44
MW-19	10/19/11	30	10 - 30	496.39	0.68	15.95	480.44
MW-20	10/19/11	29	10 - 29	495.63	0.11	14.80	480.83
MW-21	10/19/11	29	10 - 29	495.03	-	14.18	480.85
MW-22	10/19/11	30	10 - 30	496.04	-	15.33	480.71
RW-1	03/23/01	30	10 - 30	497.67	-	16.46	481.21
RW-2	03/23/01	30	10 - 30	498.14	-	16.90	481.24
RW-3	03/23/01	30	10 - 30	497.22	0.08	16.09	481.13
Type III Monitoring Well							
MW-5	04/26-27/01	45.5	41.5 - 45.5	496.88	-	15.75	481.13
MW-15	11/5-6/03	66	61 - 66	495.94	-	16.8	479.14

Notes: All measurements in feet.

1 - Values in this column corrected using the equation for correction to compute hydraulic head in wells containing free product as described in Chapter 3 of the EPA document "How to Effectively Recover Free Product at LUST Sites: A Guide for Regulators".

2 - 2"-I.D. Sch. 40 0.010" slotted PVC screen

Wells were installed & surveyed by another consultant during previous assessment activities.

NM - Not measured

MW-10, MW-12, MW-13, & MW-15 are stick-up wells.

TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS -September 2014
PANTRY # 486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Client Sample ID				MW-12		MW-13		MW-14		MW-15		MW-16		MW-17		MW-18		MW-19		MW-20		MW-21		MW-22		RW-1		RW-2		NC 2L Standard (µg/L)	Gross Contamination Levels for Groundwater (µg/L)
Collect Date				5/19/2015		5/19/2015		5/19/2015		5/20/2015		5/20/2015		5/20/2015		5/20/2015		-		-		5/19/2015		5/19/2015		5/20/2015		5/20/2015			
Method	Parameter	CAS #	Units	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual		
6200B-1997	Acetone	67-64-1	µg/l	<50		<50		<50		<50		<50		<50		<50		NS - FFP		NS - FFP		<500		<50		<500		<5000		6,000	6,000,000
6200B-1997	Acrolein	107-02-8	µg/l	<50	J3	<50	J3	<50	J3	<50	J3	<50	J3	<50	J3	<50	J3	NS - FFP		NS - FFP		<500	J3	<50	J3	<500	J3	<5000	J3	NL	NL
6200B-1997	Acrylonitrile	107-13-1	µg/l	<10		<10		<10		<10		<10		<10		<10		NS - FFP		NS - FFP		<100		<10		<100		<1000		NL	NL
6200B-1997	Benzene	71-43-2	µg/l	<1.0		<1.0		<1.0		770		13		<1.0		<1.0		NS - FFP		NS - FFP		690		<1.0		660		6500		1	5,000
6200B-1997	Bromobenzene	108-86-1	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	Bromodichloromethane	75-27-4	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.6	NL
6200B-1997	Bromoform	75-25-2	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		4	NL
6200B-1997	Bromomethane	74-83-9	µg/l	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		NS - FFP		NS - FFP		<50		<5.0		<50		<500		100	100,000
6200B-1997	n-Butylbenzene	104-51-8	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		11		<1.0		<10		<100		70	6,900
6200B-1997	sec-Butylbenzene	135-98-8	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		13		2.4		<10		<100		70	8,600
6200B-1997	tert-Butylbenzene	98-06-6	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		70	15,000
6200B-1997	Carbon tetrachloride	56-23-5	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.3	NL
6200B-1997	Chlorobenzene	108-90-7	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		50	50,000
6200B-1997	Chlorodibromomethane	124-48-1	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	Chloroethane	75-00-3	µg/l	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		NS - FFP		NS - FFP		<50		<5.0		<50		<500		3,000	NL
6200B-1997	Chloroform	67-66-3	µg/l	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		NS - FFP		NS - FFP		<50		<5.0		<50		<500		70	70,000
6200B-1997	Chloromethane	74-87-3	µg/l	<2.5		<2.5		<2.5		<2.5		<2.5		<2.5		<2.5		NS - FFP		NS - FFP		<25		<2.5		<25		<250		3	3,900
6200B-1997	2-Chlorotoluene	95-49-8	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		100	NL
6200B-1997	4-Chlorotoluene	106-43-4	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		24	7,500
6200B-1997	1,2-Dibromo-3-Chloropropane	96-12-8	µg/l	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		NS - FFP		NS - FFP		<50		<5.0		<50		<500		0.04	NL
6200B-1997	1,2-Dibromoethane	106-93-4	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	Dibromomethane	74-95-3	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	1,2-Dichlorobenzene	95-50-1	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		20	20,000
6200B-1997	1,3-Dichlorobenzene	541-73-1	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		200	61,500
6200B-1997	1,4-Dichlorobenzene	106-46-7	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		6	6,000
6200B-1997	Dichlorodifluoromethane	75-71-8	µg/l	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		NS - FFP		NS - FFP		<50		<5.0		<50		<500		1,000	140,000
6200B-1997	1,1-Dichloroethane	75-34-3	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		6	6,000
6200B-1997	1,2-Dichloroethane	107-06-2	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.4	400
6200B-1997	1,1-Dichloroethene	75-35-4	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		7	7,000
6200B-1997	cis-1,2-Dichloroethene	156-59-2	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		70	70,000
6200B-1997	trans-1,2-Dichloroethene	156-60-5	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		100	100,000
6200B-1997	1,2-Dichloropropane	78-87-5	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.5	600
6200B-1997	1,1-Dichloropropene	563-58-6	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	1,3-Dichloropropane	142-28-9	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	2,2-Dichloropropane	594-20-7	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	Di-isopropyl ether	108-20-3	µg/l	<1.0		<1.0		<1.0		<1.0		3.6		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		70	70,000
6200B-1997	Ethylbenzene	100-41-4	µg/l	<1.0		<1.0		<1.0		<1.0		90		4.9		<1.0		NS - FFP		NS - FFP		2800		17		730		1600		600	84,500
6200B-1997	Hexachloro-1,3-butadiene	87-68-3	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.4	400
6200B-1997	Isopropylbenzene	98-82-8	µg/l	<1.0		<1.0		<1.0		<1.0		4.4		1.3		<1.0		NS - FFP		NS - FFP		100		6.9		44		<100		70	25,000
6200B-1997	p-Isopropyltoluene	99-87-6	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		25	11,700
6200B-1997	2-Butanone (MEK)	78-93-3	µg/l	<10		<10		<10		<10		<10		<10		<10		NS - FFP		NS - FFP		<100		<10		<100		<1000		4,000	4,000,000
6200B-1997	Methylene Chloride	75-09-2	µg/l	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		NS - FFP		NS - FFP		<50		<5.0		<50		<500		5	5,000
6200B-1997	4-Methyl-2-pentanone (MIBK)	108-10-1	µg/l	<10		<10		<10		<10		<10		<10		<10		NS - FFP		NS - FFP		<100		<10		<100		<1000		100	100,000
6200B-1997	Methyl tert-butyl ether	1634-04-4	µg/l	<1.0		<1.0		<1.0		<1.0		220		2.8		<1.0		NS - FFP		NS - FFP		170		7.6		15		130		20	20,000
6200B-1997	Naphthalene	91-20-3	µg/l	<5.0		<5.0		<5.0		<5.0		25		<5.0		<5.0		NS - FFP		NS - FFP		360		5.5		130		<500		6	6,000
6200B-1997	n-Propylbenzene	103-65-1	µg/l	<1.0		<1.0		<1.0		<1.0		7.2		2.4		<1.0		NS - FFP		NS - FFP		270		6.4		98		170		70	3,000
6200B-1997	Styrene	100-42-5	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		70	70,000
6200B-1997	1,1,1,2-Tetrachloroethane	630-20-6	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		1	1,000
6200B-1997	1,1,2,2-Tetrachloroethane	79-34-5	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.2	200
6200B-1997	Tetrachloroethene	127-18-4	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.7	700
6200B-1997	Toluene	108-88-3	µg/l	<5.0		<5.0		<5.0		<5.0		1800		6.4		<5.0		NS - FFP		NS - FFP		17000		18		5900		16000		600	260,000
6200B-1997	1,2,3-Trichlorobenzene	87-61-6	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		NL	NL
6200B-1997	1,2,4-Trichlorobenzene	120-82-1	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		70	70,000
6200B-1997	1,1,1-Trichloroethane	71-55-6	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		200	200,000
6200B-1997	1,1,2-Trichloroethane	79-00-5	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.6	600
6200B-1997	Trichloroethene	79-01-6	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		3	3,000
6200B-1997	Trichlorofluoromethane	75-69-4	µg/l	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		NS - FFP		NS - FFP		<50		<5.0		<50		<500		2,000	2,000,000
6200B-1997	1,2,3-Trichloropropane	96-18-4	µg/l	<2.5		<2.5		<2.5		<2.5		<2.5		<2.5		<2.5		NS - FFP		NS - FFP		<25		<2.5		<25		<250		0.005	NL
6200B-1997	1,2,4-Trimethylbenzene	95-63-6	µg/l	<1.0		<1.0		<1.0		<1.0		120		23		<1.0		NS - FFP		NS - FFP		1800		20		820		2000		400	28,500
6200B-1997	1,3,5-Trimethylbenzene	108-67-8	µg/l	<1.0		<1.0		<1.0		<1.0		39		6.4		<1.0		NS - FFP		NS - FFP		460		2.2		180		440		400	25,000
6200B-1997	Vinyl chloride	75-01-4	µg/l	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		NS - FFP		NS - FFP		<10		<1.0		<10		<100		0.03	30
6200B-1997	o-Xylene	95-47-6	µg/l	<1.0		<1.0		<1.0		<1.0		450		11		<1.0		NS - FFP		NS - FFP		4900		21		1600		4100		500	85,500
6200B-1997	m&p-Xylenes	1330-20-7	µg/l	<2.0		<2.0		<2.0		<2.0		640		25		<2.0		NS - FFP		NS - FFP		9500		22		2800		7400		500	85,500
Calculated	Xylenes (Total)	1330-20-7	µg/l	<2.0		<2.0		<2.0		<2.0		1090		36		<2.0		NS - FFP		NS - FFP		14400		43		4400		11500		500	85,500

Notes:
µg/l - micrograms per liter or ppb.
NL - No Listing
NAPL - Non-Aqueous Phase Liquid
NS - Not Sampled
FFP - Free Phase Product
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

Qualifiers:
J3 - The associated batch QC was outside the established quality control

TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS -September 2014
PANTRY # 486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Client Sample ID				MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		NC 2L Standard (µg/L)	Gross Contamination Levels for Groundwater (µg/L)
Collect Date				5/20/2015		5/19/2015		5/20/2015		5/20/2015		5/20/2015		5/19/2015		5/19/2015		-		5/19/2015		5/19/2016		-			
Method	Parameter	CAS #	Units	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual		
6200B-1997	Acetone	67-64-1	µg/l	<2500		<50		<500		<2500		<50		<50		<50		Destroyed		<50		<50		NS		6,000	6,000,000
6200B-1997	Acrolein	107-02-8	µg/l	<2500	J3	<50	J3	<500	J3	<2500	J3	<50		<50	J3	<50	J3	Destroyed		<50	J3	<50	J3	NS		NL	NL
6200B-1997	Acrylonitrile	107-13-1	µg/l	<500		<10		<100		<500		<10		<10		<10		Destroyed		<10		<10		NS		NL	NL
6200B-1997	Benzene	71-43-2	µg/l	5200		550		1200		4600		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		1	5,000
6200B-1997	Bromobenzene	108-86-1	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		NL	NL
6200B-1997	Bromodichloromethane	75-27-4	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.6	NL
6200B-1997	Bromoform	75-25-2	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		4	4,000
6200B-1997	Bromomethane	74-83-9	µg/l	<250		<5.0		<50		<250		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		100	100,000
6200B-1997	n-Butylbenzene	104-51-8	µg/l	<50		2.2		10		<50		<1.0		<1.0		<1.0		Destroyed		14		<1.0		NS		70	6,900
6200B-1997	sec-Butylbenzene	135-98-8	µg/l	<50		2.5		11		<50		<1.0		<1.0		<1.0		Destroyed		13		<1.0		NS		70	8,500
6200B-1997	tert-Butylbenzene	98-06-6	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		70	15,000
6200B-1997	Carbon tetrachloride	56-23-5	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.3	NL
6200B-1997	Chlorobenzene	108-90-7	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		50	50,000
6200B-1997	Chlorodibromomethane	124-48-1	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.4	400
6200B-1997	Chloroethane	75-00-3	µg/l	<250		<5.0		<50		<250		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		3,000	NL
6200B-1997	Chloroform	67-66-3	µg/l	<250		<5.0		<50		<250		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		70	70,000
6200B-1997	Chloromethane	74-87-3	µg/l	<120		<2.5		<25		<120		<2.5		<2.5		<2.5		Destroyed		<2.5		<2.5		NS		3	3,000
6200B-1997	2-Chlorotoluene	95-49-8	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		100	NL
6200B-1997	4-Chlorotoluene	106-43-4	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		24	7,500
6200B-1997	1,2-Dibromo-3-Chloropropane	96-12-8	µg/l	<250		<5.0		<50		<250		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		0.04	NL
6200B-1997	1,2-Dibromoethane	106-93-4	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.02	50
6200B-1997	Dibromomethane	74-95-3	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		NL	NL
6200B-1997	1,2-Dichlorobenzene	95-50-1	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		20	20,000
6200B-1997	1,3-Dichlorobenzene	541-73-1	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		200	61,500
6200B-1997	1,4-Dichlorobenzene	106-46-7	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		6	6,000
6200B-1997	Dichlorodifluoromethane	75-71-8	µg/l	<250		<5.0		<50		<250		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		1,000	140,000
6200B-1997	1,1-Dichloroethane	75-34-3	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		6	6,000
6200B-1997	1,2-Dichloroethane	107-06-2	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.4	400
6200B-1997	1,1-Dichloroethene	75-35-4	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		7	7,000
6200B-1997	cis-1,2-Dichloroethene	156-59-2	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		70	70,000
6200B-1997	trans-1,2-Dichloroethene	156-60-5	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		100	100,000
6200B-1997	1,2-Dichloropropane	78-87-5	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.6	600
6200B-1997	1,1-Dichloropropene	563-58-6	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		NL	NL
6200B-1997	1,3-Dichloropropane	142-28-9	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		NL	NL
6200B-1997	2,2-Dichloropropane	594-20-7	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		NL	NL
6200B-1997	Di-isopropyl ether	108-20-3	µg/l	<50		2.6		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		70	70,000
6200B-1997	Ethylbenzene	100-41-4	µg/l	2000		96		2400		1800		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		600	84,500
6200B-1997	Hexachloro-1,3-butadiene	87-68-3	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.4	400
6200B-1997	Isopropylbenzene	98-82-8	µg/l	93		9.4		100		83		<1.0		<1.0		<1.0		Destroyed		31		<1.0		NS		70	25,000
6200B-1997	p-Isopropyltoluene	99-87-6	µg/l	<50		1.4		<10		<50		<1.0		<1.0		<1.0		Destroyed		6.6		<1.0		NS		25	11,700
6200B-1997	2-Butanone (MEK)	78-93-3	µg/l	<500		<10		<100		<500		<10		<10		<10		Destroyed		<10		<10		NS		4,000	4,000,000
6200B-1997	Methylene Chloride	75-09-2	µg/l	<250		<5.0		<50		<250		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		5	5,000
6200B-1997	4-Methyl-2-pentanone (MIBK)	108-10-1	µg/l	<500		<10		<100		<500		<10		<10		<10		Destroyed		<10		<10		NS		100	100,000
6200B-1997	Methyl tert-butyl ether	1634-04-4	µg/l	1300		18		210		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		20	20,000
6200B-1997	Naphthalene	91-20-3	µg/l	360		33		360		370		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		6	6,000
6200B-1997	n-Propylbenzene	103-65-1	µg/l	210		19		240		110		<1.0		<1.0		<1.0		Destroyed		40		<1.0		NS		70	30,000
6200B-1997	Styrene	100-42-5	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		70	70,000
6200B-1997	1,1,1,2-Tetrachloroethane	630-20-6	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		1	1,000
6200B-1997	1,1,2,2-Tetrachloroethane	79-34-5	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.2	200
6200B-1997	Tetrachloroethene	127-18-4	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.7	700
6200B-1997	Toluene	108-88-3	µg/l	22000		1200		18000		19000		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		600	268,000
6200B-1997	1,2,3-Trichlorobenzene	87-61-6	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		NL	NL
6200B-1997	1,2,4-Trichlorobenzene	120-82-1	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		70	70,000
6200B-1997	1,1,1-Trichloroethane	71-55-6	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		200	200,000
6200B-1997	1,1,2-Trichloroethane	79-00-5	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.6	600
6200B-1997	Trichloroethene	79-01-6	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		3	3,000
6200B-1997	Trichlorofluoromethane	75-69-4	µg/l	<250		<5.0		<50		<250		<5.0		<5.0		<5.0		Destroyed		<5.0		<5.0		NS		2,000	2,000,000
6200B-1997	1,2,3-Trichloropropane	96-18-4	µg/l	<120		<2.5		<25		<120		<2.5		<2.5		<2.5		Destroyed		<2.5		<2.5		NS		0.005	NL
6200B-1997	1,2,4-Trimethylbenzene	95-63-6	µg/l	1700		300		1800		1400		<1.0		<1.0		<1.0		Destroyed		690		<1.0		NS		400	28,500
6200B-1997	1,3,5-Trimethylbenzene	108-67-8	µg/l	410		74		420		340		<1.0		<1.0		<1.0		Destroyed		260		<1.0		NS		400	25,000
6200B-1997	Vinyl chloride	75-01-4	µg/l	<50		<1.0		<10		<50		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		0.03	30
6200B-1997	o-Xylene	95-47-6	µg/l	4000		350		3800		3600		<1.0		<1.0		<1.0		Destroyed		<1.0		<1.0		NS		500	85,500
6200B-1997	m&p-Xylenes	1330-20-7	µg/l	6900		670		8600		6400		<2.0		<2.0		<2.0		Destroyed		4.1		<2.0		NS		500	85,500
Calculated	Xylenes (Total)	1330-20-7	µg/l	10900		1020		12400		10000		<2.0		<2.0		<2.0		Destroyed		4.1		<2.0		NS		500	85,500

Notes:
µg/l - micrograms per liter or ppb.
NL - No Listing
NAPL - Non-Aqueous Phase Liquid
NS - Not Sampled
FPP - Free Phase Product
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

Qualifiers:
J3 - The associated batch QC was outside the established quality control range for precision.

TABLE 5
HISTORICAL GROUNDWATER ELEVATION DATA
Pantry #486
6505 Raeford Road
Fayetteville, Cumberland County, North Carolina

Well ID	Date Measured	Top of Casing Elevation	Depth to Water	Groundwater Elevation
MW-1	2/26/2003	496.98	18.51	478.47
	4/16/2003		16.79	480.30
	2/9/2004		15.99	481.12
	1/28/2008		*18.01	478.97
	10/6/2009		*17.22	479.76
	6/3/2010		15.42	481.56
	12/15/2010		16.89	480.09
	7/26/2012		18.57	478.41
	5/8/2013		17.14	479.84
	12/27/2013		*16.82	480.16
	9/11/2014		16.03	480.95
	5/19/2015		15.79	481.19
MW-2	2/26/2003	498.65	20.32	478.99
	4/16/2003		19.69	480.46
	2/9/2004		17.81	481.28
	1/28/2008		*19.63	479.02
	10/6/2009		*18.78	479.87
	6/3/2010		16.93	481.72
	12/15/2010		*18.44	480.21
	7/26/2012		19.12	479.53
	5/8/2013		*18.85	479.80
	12/27/2013		18.73	479.92
	9/11/2014		17.60	481.05
	5/19/2015		17.26	481.39
MW-3	2/26/2003	496.65	18.16	478.93
	4/16/2003		16.35	480.30
	2/9/2004		15.60	481.05
	1/28/2008		*17.70	478.95
	10/6/2009		*17.00	479.65
	6/3/2010		15.12	481.53
	12/15/2010		*16.64	480.01
	7/26/2012		17.26	479.43
	5/8/2013		*16.86	479.79
	12/27/2013		*16.53	480.12
	9/11/2014		15.75	480.90
	5/19/2015		15.53	481.12
MW-4	2/26/2003	499.26	20.65	479.09
	4/16/2003		19.68	480.47
	2/9/2004		18.41	481.20
	1/28/2008		*20.22	479.04
	10/6/2009		*19.38	479.88
	6/3/2010		17.57	481.69
	12/15/2010		*19.11	480.15
	7/26/2012		19.71	479.56
	5/13/2013		*19.46	479.80
	12/27/2013		19.01	480.25
	9/11/2014		18.17	481.09
	5/19/2015		17.91	481.35
MW-5	2/26/2003	496.88	18.00	478.88
	4/16/2003		16.60	480.28
	2/9/2004		15.79	481.09
	1/28/2008		17.95	478.93
	10/7/2009		17.09	479.79
	6/3/2010		15.36	481.52
	12/15/2010		16.82	480.06
	7/26/2012		18.53	478.35
	5/8/2013		17.10	479.78
	12/27/2013		16.74	480.14
	9/11/2014		16.00	480.88
	5/19/2015		15.75	481.13

Notes:
All measurements in feet.
Measurements collected prior to 1/08 were collected by a previous consultant.
NM - Not measured
* Water depth has been adjusted for free product by: DTW + (FP thickness X 0.73).
** MW-5 & MW-15 are Type III wells.

TABLE 5
HISTORICAL GROUNDWATER ELEVATION DATA
Pantry #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Well ID	Date Measured	Top of Casing Elevation	Depth to Water	Groundwater Elevation
MW-6	2/26/2003	500.12	20.92	479.20
	4/16/2003		19.48	480.64
	2/9/2004		18.62	481.50
	1/28/2008		17.78	482.34
	10/6/2009		19.95	480.17
	6/3/2010		18.20	481.92
	12/15/2010		19.38	480.74
	7/26/2012		20.36	479.76
	5/8/2013		20.02	480.10
	12/27/2013		19.64	480.48
	9/11/2014		18.78	481.34
	5/19/2015		18.51	481.61
MW-7	2/26/2003	497.28	18.25	479.03
	4/16/2003		16.86	480.42
	2/9/2004		16.22	481.06
	1/28/2008		18.21	479.07
	10/7/2009		17.51	479.77
	6/3/2010		15.61	481.67
	12/15/2010		16.95	480.33
	7/26/2012		17.76	479.52
	5/8/2013		17.45	479.83
	12/27/2013		17.08	480.20
	9/11/2014		16.35	480.93
	5/19/2015		16.21	481.07
MW-8	2/26/2003	495.1	16.45	478.65
	4/16/2003		15.17	479.93
	2/9/2004		14.52	480.58
	1/28/2008		16.45	478.65
	10/7/2009		15.72	479.38
	6/3/2010		13.88	481.22
	12/15/2010		15.23	479.87
	7/26/2012		Destroyed	
MW-9	2/26/2003	499.74	20.63	479.13
	4/16/2003		19.15	480.59
	2/9/2004		18.26	481.48
	1/28/2008		20.53	479.21
	10/6/2009		19.65	480.09
	6/3/2010		17.82	481.92
	12/15/2010		19.38	480.36
	7/26/2012		20.05	479.69
	5/8/2013		19.68	480.06
	12/27/2013		19.29	480.45
	9/14/2014		18.42	481.32
	5/19/2015		18.14	481.60
MW-10	2/26/2003	503.46	24.5	478.96
	4/16/2003		23.05	480.41
	2/9/2004		22.17	481.29
	1/28/2008		24.35	479.11
	10/6/2009		23.49	479.97
	6/3/2010		21.75	481.71
	12/15/2010		23.26	480.20
	7/26/2012		23.95	479.51
	5/13/2013		23.57	479.89
	12/27/2013		23.17	480.29
	9/11/2014		22.35	481.11
	5/19/2015		22.00	481.46
MW-11	2/26/2003	496.1	18.16	478.75
	4/16/2003		16.99	480.11
	2/9/2004		16.02	480.90
	1/28/2008		*17.35	478.75
	10/6/2009		NM	NM
	6/3/2010		NM	NM
	12/15/2010		NM	NM
	7/26/2012		Destroyed	
MW-12	2/26/2003	498.6	19.36	479.24
	4/16/2003		17.86	480.74
	2/9/2004		16.98	481.62
	1/28/2008		NM	NM
	10/7/2009		NM	NM
	6/3/2010		16.52	482.08
	12/15/2010		18.11	480.49
	7/26/2012		NM	NM
	12/27/2013		Dry	Dry
	9/11/2014		17.03	481.57
	5/19/2015		16.80	481.80

Notes:
All measurements in feet.
Measurements collected prior to 10/07 were collected by a previous consultant.
NM - Not Measured, well is obstructed with organic debris.
* Water depth has been adjusted for free product by: DTW + (FP thickness X 0.73).
NA - Not Applicable
** MW-5 & MW-15 are Type III wells.

TABLE 5
HISTORICAL GROUNDWATER ELEVATION DATA
Pantry #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Well ID	Date Measured	Top of Casing Elevation	Depth to Water	Groundwater Elevation
MW-13	2/26/2003	506.49	27.48	479.01
	4/16/2003		26.00	480.49
	2/9/2004		25.08	481.41
	1/28/2008		27.76	478.73
	10/6/2009		26.45	480.04
	6/3/2010		24.68	481.81
	12/15/2010		26.05	480.44
	7/26/2012		20.92	485.57
	5/13/2013		26.54	479.95
	12/27/2013		26.11	480.38
	9/11/2014		25.25	481.24
	5/19/2015		24.91	481.58
MW-14	11/12/2003	500.66	17.97	482.69
	2/9/2004		18.91	481.75
	1/28/2008		20.15	480.51
	10/6/2009		19.49	481.17
	6/3/2010		19.49	481.17
	12/15/2010		19.92	480.74
	7/26/2012		20.66	480.00
	5/8/2013		20.59	480.37
	12/27/2013		19.89	480.77
	9/11/2014		19.03	481.63
	5/19/2015		18.74	481.92
MW-15	11/12/2003	495.94	15.93	480.01
	2/9/2004		16.35	479.59
	1/28/2008		18.45	477.49
	10/7/2009		17.57	478.37
	6/3/2010		17.57	478.37
	12/15/2010		17.02	478.92
	7/26/2012		17.95	477.99
	5/13/2013		17.63	478.31
	12/27/2013		16.72	479.22
	9/11/2014		16.45	479.49
	5/19/2015		16.80	479.14
MW-16	10/18/2011	497.88	18.37	479.51
	5/13/2013		18.08	479.80
	12/27/2013		17.62	480.26
	9/11/2014		16.86	481.02
	5/19/2015		16.65	481.23
MW-17	10/18/2011	498.01	18.48	479.53
	5/8/2013		18.13	479.88
	12/27/2013		17.77	480.24
	9/11/2014		16.97	481.04
	5/19/2015		16.80	481.21
MW-18	10/18/2011	499.28	20.35	478.93
	5/13/2013		19.28	480.00
	12/27/2013		18.86	480.42
	9/11/2014		18.03	481.25
	5/19/2015		17.84	481.44
MW-19	10/19/2011	496.39	17.14	479.25
	5/8/2013		*16.61	479.78
	12/27/2013		*17.14	479.25
	9/11/2014		*16.11	480.28
	5/19/2015		*16.45	479.94
MW-20	10/19/2011	495.63	16.40	479.23
	5/8/2013		*16.06	479.57
	12/27/2013		*15.73	479.90
	9/11/2014		*15.13	480.50
	5/19/2015		*14.88	480.75
MW-21	10/19/2011	495.03	17.80	477.23
	5/8/2013		*15.43	479.60
	12/27/2013		15.11	479.92
	9/11/2014		14.38	480.65
	5/19/2015		14.18	480.85
MW-22	10/19/2011	496.04	16.84	479.20
	5/8/2013		16.51	479.53
	12/27/2013		16.19	479.85
	9/11/2014		15.50	480.54
	5/19/2015		15.33	480.71
RW-1	2/26/2003	497.67	19.10	478.96
	2/9/2004		16.58	481.09
	6/3/2010		*16.11	481.56
	7/26/2012		19.00	481.56
	5/13/2013		*17.97	479.70
	12/27/2013		Not Gauged	Not Gauged
	9/11/2014		16.70	480.97
	5/19/2015		16.46	481.21
RW-2	2/26/2003	498.14	19.70	478.97
	2/9/2004		17.10	481.15
	6/3/2010		16.54	481.60
	7/26/2012		18.88	479.26
	5/13/2013		*18.38	479.76
	12/27/2013		Not Gauged	Not Gauged
	9/11/2014		17.12	481.02
	5/19/2015		16.90	481.24
RW-3	2/26/2003	497.22	18.80	478.92
	2/9/2004		16.20	481.02
	6/3/2010		*15.65	481.57
	7/26/2012		17.89	479.40
	5/13/2013		*17.49	479.73
	12/27/2013		Not Gauged	Not Gauged
	9/11/2014		16.26	480.96
	5/19/2015		*16.15	481.07

Notes:
All measurements in feet.
Measurements collected prior to 10/07 were collected by a previous consultant.
NM - Not Measured, well is obstructed with organic debris.
* Water depth has been adjusted for free product by: DTW + (FP thickness X 0.73).
NA - Not Applicable
** MW-5 & MW-15 are Type III wells.

TABLE 6
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-1							MW-2						MW-3						MW-4						NCAC 2L STD	GCL
	6/4/2010	12/15/2010	7/26/2012	6/8/2013	12/27/2013	9/12/201	5/20/2014	6/4/2010	12/16/2010	7/26/2012	12/27/2013	9/12/2016	5/19/2015	6/4/2010	12/15/2010	7/26/2012	12/27/2013	9/12/2014	5/20/2016	6/4/2010	12/15/2010	7/26/2012	12/27/2013	9/11/114	6/20/2016	(µg/l)	(µg/l)
Volatile Organic Compounds(VOCs) by EPA Method 6200B																											
Benzene	470	9,800	NS	8,380	NAPL	1,500	26,200	640	NS	180	NAPL	28	650	490	NS	NS	NAPL	960	1,200	1,800	NS	NS	NAPL	6,500	4,800	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	NS	BDL		BDL	BDL	BDL	NS	BDL		BDL	2.6	BDL	NS	NS		BDL	BDL	BDL	NS	NS		BDL	BDL	70	70,000
Ethylbenzene	300	3,600	NS	1,900		1,000	2,000	510	NS	100		100	96	860	NS	NS		1,900	2,400	1,200	NS	NS		10,000	1,800	600	84,500
Isopropylbenzene	27	BDL	NS	BDL		61	[illegible]	BDL	NS	100		8.5	9.4	BDL	NS	NS		75	160	58	NS	NS		1,300	83	70	25,000
Methyl tertiary-butyl ether (MTBE)	370	62,000	NS	7,200		160	1,300	260	NS	47		1.1	18	640	NS	NS		230	210	BDL	NS	NS		BDL	BDL	20	20,000
Naphthalene	[illegible]	BDL	NS	BDL		190	390	BDL	NS	28		22	33	BDL	NS	NS		290	390	BDL	NS	NS		BDL	370	6	6,000
n-Propylbenzene	45	570	NS	BDL		180	210	84	NS	22		19	19	74	NS	NS		190	240	140	NS	NS		4,200	180	70	30,000
p-Isopropyltoluene	11	BDL	NS	BDL		BDL	BDL	BDL	NS	BDL		BDL	1.4	BDL	NS	NS		BDL	BDL	BDL	NS	NS		780	BDL	NL	NL
n-Butylbenzene	BDL	BDL	NS	BDL		10	BDL	BDL	NS	2.3		1.7	2.2	BDL	NS	NS		BDL	10	BDL	NS	NS		680	BDL	70	6,900
sec-Butylbenzene	BDL	BDL	NS	BDL		9.9	BDL	BDL	NS	1.9		1.7	2.5	BDL	NS	NS		BDL	11	BDL	NS	NS		BDL	BDL	70	8,500
Toluene	1,800	20,000	NS	24,000		[illegible]	22,000	3,200	NS	11,000		570	40,200	5,300	NS	NS		13,000	19,000	8,200	NS	NS		40,000	19,000	600	260,000
1,2,4-Trimethylbenzene	530	4,100	NS	1,500		1,100	15,200	780	NS	260		180	300	780	NS	NS		1,400	1,800	1,000	NS	NS		24,000	1,400	400	28,500
1,3,5-Trimethylbenzene	140	24,000	NS	350		310	3,410	190	NS	57		44	74	200	NS	NS		320	420	210	NS	NS		6,900	340	400	25,000
Xylenes, Total	2,150	21,200	NS	10,750		5,200	10,900	2,500	NS	2,810		780	1,920	4,300	NS	NS		[illegible]	12,400	6,800	NS	NS		55,000	40,000	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #488
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-5									MW-6									NCAC 2L STD (µg/l)	GCL (µg/l)
	1/28/2008	10/7/2009	6/4/2010	12/16/2010	7/26/2012	5/8/2013	12/27/2013	9/12/2014	5/20/2015	2/28/2008	10/6/2009	6/4/2010	12/16/2010	12/16/2010	7/26/2012	5/13/2013	12/27/2013	9/11/2014	5/19/2015	
Volatile Organic Compounds (VOCs) by EPA Method 6200B																				
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	[redacted]	[redacted]	[redacted]	2.0	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	25,000
Methyl tertiary-butyl ether (MTBE)	40	2.1	BDL	5.2	BDL	1.3	5.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6	5,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	260,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	2.6	BDL	BDL	BDL	BDL	BDL	BDL	1.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	25,000
Xylenes, Total	BDL	BDL	BDL	3.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-7									MW-8					MW-8									NCAC 2L STD	GCL
	2/26/2009	10/7/2009	6/4/2010	12/18/2010	7/26/2012	5/8/2013	5/8/2013	9/11/2014	5/19/2015	1/29/2009	10/7/2009	6/4/2010	12/18/2010	7/26/2012	1/28/2009	10/6/2009	6/4/2010	12/15/2010	7/26/2012	5/8/2013	5/8/2013	9/11/2014	5/19/2015	(µg/l)	(µg/l)
Volatile Organic Compounds (VOCs) by EPA Method 6200B																									
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	[redacted]	BDL	BDL	DESTROYED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		250	14	37	BDL	4.3	BDL	BDL	BDL	BDL	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	64	[redacted]	[redacted]	41	50	68	53	31	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	29	BDL	BDL	BDL	BDL	BDL	BDL	[redacted]	16	[redacted]		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	36	[redacted]	BDL	[redacted]	BDL	BDL	BDL	BDL	6	6,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	[redacted]	[redacted]	[redacted]	52	59	[redacted]	[redacted]	46	70	33,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		9.3	21	38	59	4.3	BDL	35	7.2	6.6	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	12	BDL	56	12	16	14	14	14	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		16	8.3	13	BDL	10	13	12	16	13	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	280,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	240	360	[redacted]	220	260	400	[redacted]	260	400	25,000
Xylenes, Total	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		[redacted]	270	412	390	38.1	BDL	21	11	4.1	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
[redacted] = Result Exceeds Laboratory Detection Limits
[redacted] = Result Exceeds 2L Standard
[redacted] = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6565 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-10									MW-12						MW-13									NCAC 2L STD	GCL
	1/29/2009	10/6/2009	6/4/2010	12/16/2010	7/27/2012	5/13/2013	12/27/2013	9/11/2014	5/19/2015	6/4/2010	12/16/2010	7/27/2012	12/27/2013	9/11/2014	5/19/2015	1/29/2009	10/6/2009	6/4/2010	12/16/2010	7/27/2012	5/13/2013	12/27/2013	9/11/2014	5/19/2015	(µg/l)	(µg/l)
Volatile Organic Compounds (VOCs) by EPA Method 6200B																										
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	DRY	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (DPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6	6,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	600	260,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	1.3	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	400	25,000
Xylenes, Total	BDL	BDL	BDL	BDL	BDL	BDL	3.8	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-14									MW-15										MW-15				NCAC 2L STD (µg/l)	GCL (µg/l)
	1/29/2008	10/6/2009	6/4/2010	12/15/2010	7/26/2012	5/8/2013	12/30/2013	9/11/2014	6/19/2015	1/29/2008	10/7/2009	6/4/2010	12/15/2010	7/26/2012	5/13/2013	6/13/2013	9/12/2014	6/20/2015	——	5/13/2013	12/30/2013	9/12/2014	6/20/2015		
Volatile Organic Compounds (VOCs) by EPA Method 8260B																									
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	61	NAPL	60	77	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	3.6	70	70,000
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	34		11	90	600	84,500
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	2		1.5	4.4	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	5	4.6	BDL	BDL	BDL	BDL	8.2	BDL	1.1	8.9	BDL	BDL	BDL	BDL	BDL	NS	22		27	230	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	6.8		BDL	25	6	6,000
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	4		2.3	7.2	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	BDL	70	6,900
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL		BDL	BDL	70	8,500
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	500		85	1800	600	260,000
1,2,4-Trimethylbenzene	BDL	BDL	BDL	3	2.2	BDL	BDL	BDL	BDL	8.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	48		21	120	400	28,500
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	16		7.5	38	400	25,000
Xylenes, Total	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	19.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	280		111	1080	500	85,500

Notes:
All results in ug/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 6 (Continued)
HISTORICAL GROUNDWATER ANALYTICAL RESULTS - PANTRY #486
6685 Raeford Road
Fayetteville, Cumberland County, North Carolina

Compound	MW-17					MW-18					MW-19			MW-20				MW-21				MW-22					NCAC 2L STD	GCL
	7/26/2012	5/8/2013	12/27/2013	9/11/2014	5/20/2015	7/26/2012	5/13/2013	12/30/2013	9/11/2014	5/20/2015	12/30/2013	9/11/2014	5/28/2015	7/27/2012	12/30/2013	9/11/2014	5/28/2015	7/27/2012	12/30/2013	9/12/2014	5/19/2015	7/27/2012	5/8/2013	12/30/2013	9/12/2014	5/19/2015	(µg/l)	(µg/l)
Volatile Organic Compounds (VOCs) by EPA Method 8200B																												
Benzene	BDL	6.2	BDL	BDL	1.9	78.6	12	BDL	BDL	BDL				13,000				500	970	540	690	BDL	BDL	BDL	BDL	BDL	1.0	5,000
Di-isopropyl ether (IPE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				BDL				BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	70,000
Ethylbenzene	BDL	BDL	BDL	1.4	4.8	10	5.3	BDL	BDL	BDL				2,800				2,500	5,300	2,700	2,900	BDL	BDL	BDL	169	17	600	84,500
Isopropylbenzene	BDL	3	BDL	BDL	1.3	6	7.6	BDL	BDL	BDL				BDL				130	270	110	100	BDL	BDL	BDL	20	6.9	70	25,000
Methyl tertiary-butyl ether (MTBE)	BDL	BDL	BDL	BDL	2.8	10	6.8	BDL	BDL	BDL				25,000				140	270	220	170	6.9	1.9	BDL	7.2	7.6	20	20,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				BDL				BDL	720	BDL	360	BDL	BDL	BDL	47	5.5	6	6,000
n-Propylbenzene	BDL	6.1	BDL	1.9	BDL	6	24.0	BDL	BDL	BDL				BDL				150	600	320	270	BDL	BDL	BDL	31	6.4	70	30,000
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	1	6.0	BDL	BDL	BDL	NAPL	NAPL	NAPL	BDL	NAPL	NAPL	NAPL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NL	NL
n-Butylbenzene	BDL	BDL	BDL	BDL	BDL	3	27.0	BDL	BDL	BDL				BDL				BDL	BDL	BDL	11	BDL	BDL	BDL	BDL	BDL	70	8,500
sec-Butylbenzene	BDL	BDL	BDL	BDL	BDL	3	12.0	BDL	BDL	BDL				BDL				BDL	BDL	BDL	13	BDL	BDL	BDL	BDL	2.4	70	8,500
Toluene	BDL	29	BDL	5.5	6.4	BDL	BDL	BDL	BDL	BDL				39,000				11,000	19,000	14,000	17,000	BDL	BDL	BDL	110	18	600	260,000
1,2,4-Trimethylbenzene	BDL	35	2.1	12	23	62	110	BDL	BDL	BDL				14,000				2,300	4,200	2,400	1,900	BDL	BDL	BDL	240	20	400	28,500
1,3,5-Trimethylbenzene	BDL	12	BDL	4.1	6.4	27	52	BDL	BDL	BDL				BDL				400	1,200	640	420	BDL	BDL	BDL	492	2.2	400	25,000
Xylenes, Total	BDL	73	8.1	13	36	73	36.2	BDL	BDL	BDL				11,000				13,100	25,500	15,200	14,400	BDL	BDL	BDL	980	43	500	85,500

Notes:
All results in µg/L - (micrograms per liter); BDL = Below Detection Limit; NA = Not Analyzed by particular method
GCL = Gross Contaminant Level; NL = Not Listed
2L STD - Groundwater Quality Standard (15A NCAC Subchapter 2L)
Parameters not listed were below detection limits - see complete laboratory report for details
NAPL - Non-Aqueous Phase Liquid present
Result = Result Exceeds Laboratory Detection Limits
Result = Result Exceeds 2L Standard
Result = Result Exceeds GCL Value

TABLE 7
FREE PRODUCT MONITORING AND RECOVERY HISTORICAL SUMMARY
Pantry #486 (Incident: #23062, Facility ID: 0-023655)
6606 Raeford Road

Monitoring/Revovery Date		May 19, 2015		September 11, 2014		August 22, 2014		July 24, 2014		June 19, 2014		May 22, 2014		April 22, 2014		March 20, 2014	
Well ID	**Screened Interval**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**
MW-1	10 - 30	15.79	-	16.03	-	16.03	-	15.87	-	15.51	-	14.96	-	15.32	-	15.11	-
MW-2	10 - 30	17.26	-	17.60	-	17.56	0.01	17.89	0.09	16.81	0.02	16.44	-	16.37	-	16.79	0.08
MW-3	10 - 30	15.53	-	15.75	-	15.77	-	15.64	-	15.09	-	14.72	-	15.16	-	15.01	-
MW-4	10 - 30	17.91	-	18.17	-	18.20	-	18.03	-	17.31	-	17.09	-	17.49	-	17.21	-
MW-16	10 - 30	16.65	-	16.86	-	16.90	-	16.75	-	16.19	-	15.81	-	16.19	-	16.05	-
MW-17	10 - 30	16.80	-	16.97	-	17.03	-	16.92	-	16.29	-	15.95	-	16.41	-	16.15	-
MW-18	10 - 30	17.84	-	19.03	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-19	10 - 30	15.95	0.68	15.90	0.29	15.90	0.30	15.95	0.55	15.30	0.11	15.20	0.67	15.90	1.17	16.16	0.91
MW-20	10 - 29	14.80	0.11	15.05	0.11	15.10	0.67	14.88	0.08	14.30	-	13.96	-	14.22	-	14.78	-
MW-21	10 - 29	14.18	-	14.38	-	14.40	-	14.29	-	13.75	-	13.44	-	13.71	-	14.39	-
MW-22	10 - 30	15.33	-	15.50	-	15.53	-	15.45	-	14.96	-	14.60	-	14.98	-	14.98	-
RW-1	10 - 30	16.46	-	16.70	-	16.70	-	16.51	-	16.12	-	N/A	N/A	15.60	-	16.05	-
RW-2	10 - 30	16.90	-	17.12	-	17.15	-	16.97	-	16.39	-	N/A	N/A	15.98	-	16.15	-
RW-3	10 - 30	16.09	0.08	16.26	-	16.26	0.02	16.22	0.16	16.25	-	N/A	N/A	16.42	-	16.08	-
Recovery Method		Bailer		Peristaltic Pump		Peristaltic Pump		Peristaltic Pump		Bailer		Peristaltic Pump		Peristaltic Pump		Peristaltic Pump	
Recovery Volume		~6 Gallons Water/Petroleum Mixture		~5.5 Gallons Water/Petroleum Mixture		~7.0 Gallons Water/Petroleum Mixture		~3.5 Gallons Water/Petroleum Mixture ~0.6 Gallons NAPL		~4.0 Gallons Water/Petroleum Mixture		~2.0 Gallons Water/Petroleum Mixture ~0.5 Gallons NAPL		~2.5 Gallons Water/Petroleum Mixture ~1.5 Gallons NAPL		~6.0 Gallons Water/Petroleum Mixture ~1.0 Gallons NAPL	

Notes:
1.) Depth-to-Water and Free Product Thickness measurements represent conditions prior to the associated recovery event.

TABLE 7
FREE PRODUCT MONITORING AND RECOVERY HISTORICAL SUMMARY
Pantry #486 (Incident: #23062, Facility ID: 0-023655)
6605 Raeford Road

Monitoring/Revovery Date		February 17, 2014		January 22, 2014		December 16, 2013		November 18, 2013		October 31, 2013		March 8, 2013		July 26, 2012	
Well ID	**Screened Interval**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**
MW-1	10 - 30	16.30	-	16.35	-	16.70	-	16.53	-	16.29	-	17.62	0.20	18.54	0.04
MW-2	10 - 30	17.92	0.04	17.99	0.10	N/A	N/A	N/A	N/A	N/A	N/A	19.05	-	19.12	-
MW-3	10 - 30	15.98	-	16.05	-	16.37	-	N/A	N/A	16.03	-	17.20	0.05	17.22	0.05
MW-4	10 - 30	18.48	-	18.51	-	17.90	-	18.68	-	N/A	N/A	19.64	-	19.70	0.02
MW-16	10 - 30	17.14	-	17.21	-	17.55	-	17.38	-	16.15	-	18.30	-	18.36	0.01
MW-17	10 - 30	17.27	-	17.32	-	17.65	-	17.81	-	16.30	-	18.43	-	18.48	-
MW-18	10 - 30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19.52	-	20.35	-
MW-19	10 - 30	16.50	0.64	16.50	0.67	16.63	0.39	16.83	0.90	16.58	0.87	17.00	0.01	17.13	0.01
MW-20	10 - 29	15.19	-	15.23	-	15.68	0.09	15.57	0.17	15.46	0.30	16.33	-	16.40	-
MW-21	10 - 29	14.59	-	N/A	N/A	14.98	-	14.85	-	N/A	N/A	15.69	-	17.80	-
MW-22	10 - 30	15.68	-	N/A	N/A	16.06	-	15.97	-	N/A	N/A	16.75	-	16.84	-
RW-1	10 - 30	17.10	-	17.05	-	17.39	-	17.21	0.03	16.97	0.01	18.07	0.02	18.62	0.52
RW-2	10 - 30	17.45	-	17.48	-	17.81	-	17.65	-	16.44	0.02	18.53	0.02	18.76	0.16
RW-3	10 - 30	16.55	-	16.59	0.01	16.95	-	16.80	-	16.69	0.20	17.40	0.02	17.82	0.09
Recovery Method		Peristaltic Pump		Peristaltic Pump		Peristaltic Pump & Bailer		Peristaltic Pump		Peristaltic Pump		MMPE Event (4/1/13)		NA - Post MMPE Monitoring	
Recovery Volume		~9.0 Gallons Water/Petroleum Mixture ~0.9 Gallons NAPL		~10.5 Gallons Water/Petroleum Mixture ~0.75 Gallons NAPL		~10 Gallons Water/Petroleum Mixture ~3.0 Gallons NAPL		~9.0 Gallons Water/Petroleum Mixture ~1.0 Gallons NAPL		~12 Gallons Water/Petroleum Mixture ~6 Gallons NAPL		~10,806 Gallons Water/Petroleum Mixture ~20 Gallons NAPL		None	

Notes:

1.) Depth-to-Water and Free Product Thickness measurements represent conditions prior to the associated recovery event.

TABLE 7
FREE PRODUCT MONITORING AND RECOVERY HISTORICAL SUMMARY
Pantry #486 (Incident: #23062, Facility ID: 0-023655)
6605 Raeford Road

Monitoring/Revovery Date		June 18, 2012		October 31, 2011		March 16, 2011		December 15, 2010		November 29, 2010		May 24, 2010		October 6, 2009	
Well ID	**Screened Interval**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**	**Depth to Water Uncorrected (feet)**	**Free Product Thickness (feet)**
MW-1	10 - 30	17.58	0.20	17.75	0.20	17.25	0.02	16.89	-	16.92	0.10	NM	NM	17.20	0.08
MW-2	10 - 30	19.01	-	19.22	-	18.87	0.02	18.51	0.10	18.63	0.28	NM	NM	18.74	0.18
MW-3	10 - 30	17.47	0.02	17.60	0.02	17.00	0.07	16.71	0.20	17.51	1.01	NM	NM	16.93	0.29
MW-4	10 - 30	19.87	0.15	19.92	0.12	19.47	0.02	19.16	0.20	19.10	0.10	NM	NM	19.30	0.33
MW-16	10 - 30	18.61	0.06	18.30	0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-17	10 - 30	18.44	0.04	18.62	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-18	10 - 30	19.50	-	18.82	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-19	10 - 30	18.22	0.04	18.40	0.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-20	10 - 29	17.18	0.04	17.41	0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-21	10 - 29	16.05	0.04	16.20	0.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-22	10 - 30	17.76	-	17.98	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RW-1	10 - 30	18.16	0.07	18.31	0.04	17.94	0.01	N/A	N/A	17.77	0.77	N/A	N/A	N/A	N/A
RW-2	10 - 30	18.54	0.02	18.35	0.01	17.50	0.01	N/A	N/A	18.02	0.02	N/A	N/A	N/A	N/A
RW-3	10 - 30	17.79	0.18	17.98	0.16	17.54	-	N/A	N/A	17.20	0.12	N/A	N/A	N/A	N/A
Recovery Method		MMPE Event		Bailer		N/A - Monitoring Event		N/A - Monitoring Event		MMPE Event		MMPE Event		N/A - Monitoring Event	
Recovery Volume		~11,397 Gallons Water/Petroleum Mixture ~46 Gallons NAPL		~20 Gallons Water/Petroleum Mixture ~8.0 Gallons NAPL		None		None		~12,967Gallons Water/Petroleum Mixture ~44 Gallons NAPL		~8,502 Gallons Water/Petroleum Mixture ~54 Gallons NAPL		None	

Notes:
1.) Depth-to-Water and Free Product Thickness measurements represent conditions prior to the associated recovery event.

TABLE B-8
FREE PRODUCT RECOVERY INFORMATION
Pantry #486
6605 Raeford Road
Fayetteville, Cumberland County, North Carolina
Facility ID Number: 0-023655
Incident Number: 23062

Date of Events	Type of Event	Total Gallons Recovered (Water / Product)	Estimated Gallons of Free Product Recovered	Estimated Pounds of Petroleum Vapors Removed
3/27/2001	AFVR	2,299	162	55.74
4/3/2001	AFVR	2,420	171	130.04
4/10/2001	AFVR	2,591	111	198.02
4/17/2001	AFVR	2,233	117	403.11
6/15/2001	AFVR	1,582	150	430.28
10/9/2001	AFVR	752	203	283.62
11/15/2001	AFVR	2,029	113	156.56
12/12/2001	AFVR	2,125	295	357.64
1/10/2002	AFVR	1,765	330	438.10
2/7/2002	AFVR	2,361	230	545.81
5/24/2010 - 5/28/2010	MMPE	8,502	54	1,224.14
11/29/2010 - 12/3/2010	MMPE	12,967	44	1,711.13
10/31/2011	Bailing	20	8	-
6/18/2012 - 6/22/2012	MMPE	11,397	46	1,068.31
4/1/2013 - 4/5/2013	MMPE	10,806	20	2,358.11
10/31/2013	Peristaltic Pump	12	6	-
11/18/2013	Peristaltic Pump	9	1	-
12/16/2013	Peristaltic Pump	10	3	-
1/22/2014	Peristaltic Pump	10.5	0.75	-
2/17/2014	Peristaltic Pump	9	0.9	-
3/20/2014	Peristaltic Pump	6	1	-
4/22/2014	Peristaltic Pump	2.5	1.5	-
5/22/2014	Peristaltic Pump	2	0.5	-
6/19/2014	Bailing	4	-	-
7/24/2014	Peristaltic Pump	3.5	0.6	-
8/22/2014	Peristaltic Pump	7	-	-
9/11/2014	Peristaltic Pump	5.5	-	-
5/19/2015	Bailing	6	2.00	-
TOTALS		**63,966**	**2,071**	**13,283.13**
TOTAL EMISSIONS AS GALLONS (POUNDS / 6.152)				**2,159.16**
TOTAL ESTIMATD GALLONS OF FREE PRODUCT REMOVED AS LIQUID AND VAPOR				**4,230.41**

Notes: Events Prior to 2010 were completed by SEI, Inc.
AFVR = Aggressive Fluid Vapor Recovery.
MMPE = Mobile Multi-Phase Extraction.